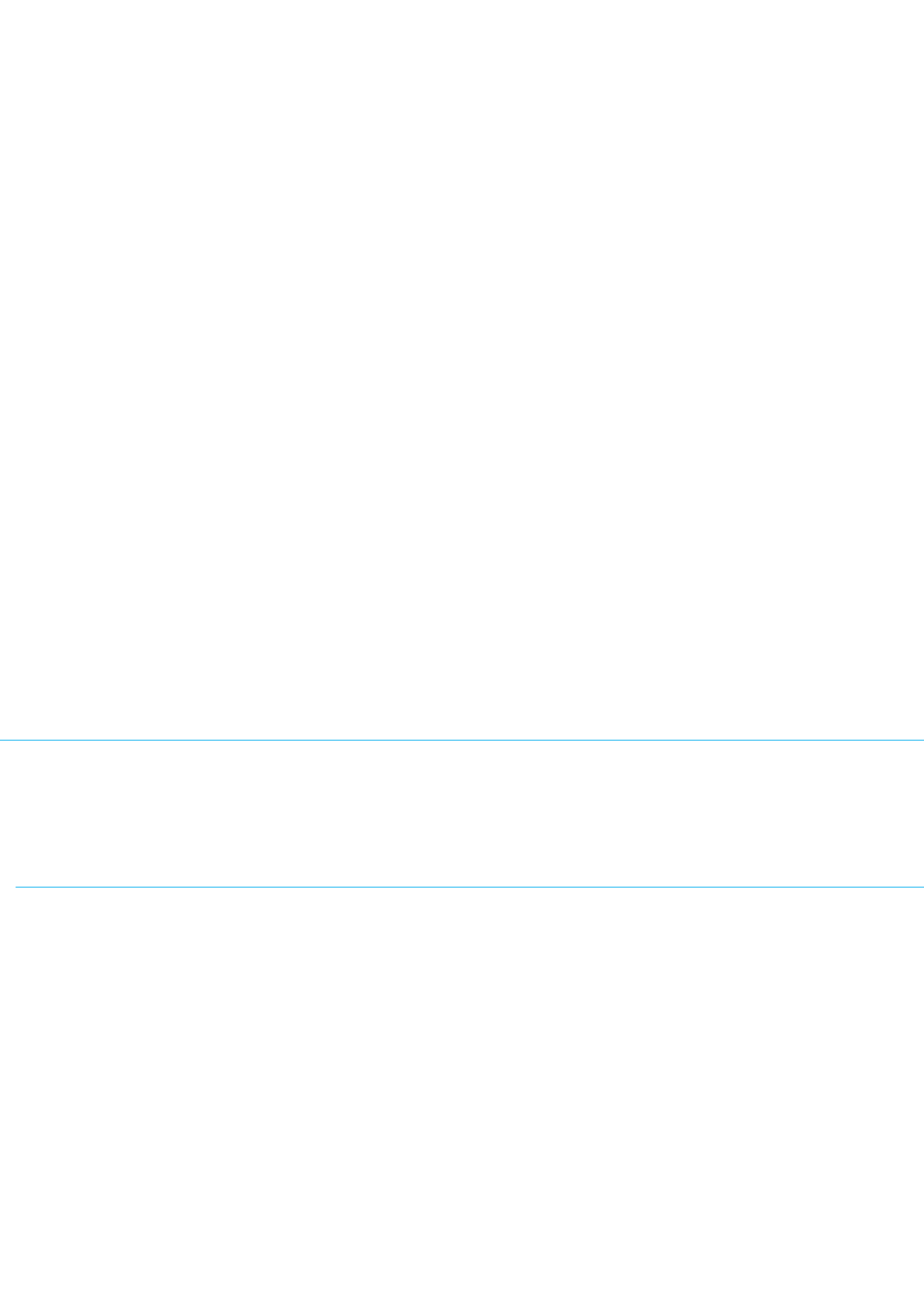


A Compilation of Use Cases for a Learning Platform

**National Urban
Learning Platform (NULP)**

An Ecosystem Approach
to Capacity Building





A Compilation of Use Cases for a Learning Platform

National Urban Learning Platform (NULP)
An Ecosystems Approach to Capacity Building

Anchor Institute
National Institute of Urban Affairs (NIUA)

Nodal Ministry
Ministry of Housing and Urban Affairs (MoHUA)

Supported by
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Foreword



The Ministry of Housing and Urban Affairs (MoHUA), in collaboration with the National Institute of Urban Affairs (NIUA), and support from the Department for International Development (DFID) of the UK Government is operationalising the National Urban Learning Platform (NULP) component of the National Urban Innovation Stack (NUIS).

NULP is envisioned as a means of digitally consolidating key knowledge and skills required by urban stakeholders and making these available to all actors on the digital channel of their choice.

The platform is proposed to primarily empower India's urban functionaries, administrators, elected representatives, civil society, industry actors and other ecosystem players to build smart, inclusive, sustainable and resilient cities.

The principles of public participation which forms the cornerstones of the Smart Cities Mission has been adopted in the National Urban Learning Platform. The NULP program will oversee the selection of a few pilot and early adoptive cities to ignite long-term adoption of the program. Feedback received through its users would help determine platform efficacy and enable continuous improvement.

Embedding innovation and collaboration in city-level functioning forms the core elements of the program and remains the primary objective of NULP. Thus, NULP, is expected to be a watershed initiative for capacity building in urban development in India, one that will pioneer training and upskilling into a new era.

This document, part of a series of knowledge products showcased through the program, intends to present a summary of features pertaining to the program and functionalities of the digital infrastructure. While some will be available in the initial stages of program deployment, the documents are intended to be iterative and will undergo revisions at different stages of program maturity. Hence, these knowledge products are purposed to document the various stages of platform development in alignment to the vision of NULP.

I congratulate and thank all partner agencies working hard to envision and develop NULP for its intended mission in Urban India.

I sincerely hope that this document will serve as a valuable source of reference for other cities/prospective users looking to develop similar platforms.

We look forward to receiving your inputs to continually enhance the platform's design.

A handwritten signature in blue ink, appearing to read 'Hitesh Vaidya', with a stylized flourish above it.

Hitesh Vaidya
Director, NIUA

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Executive Summary

Use Cases are defined as a set of possible sequences of interactions between systems and users in a particular environment reflecting characteristics for organising functional requirements modelling the goals of system and actor's interactions.

Use cases are important to design during the development of any digital infrastructure because they exhaustively map system behaviour and pave the way for building robust and evolving troubleshooting mechanisms. Project teams can leverage this collation of design to negotiate which functions become requirements and are built into the digital structure.

The use cases for NULP have been developed at both a Platform Level and Program Level through comprehensive research and scoping of futuristic capabilities of the digital infrastructure for subsequent deployment. Further to this, an exhaustive scope for gathering system requirements, validating design, testing software and creating help and user manuals can be developed.

Platform Level use cases have been outlined to highlight optimum functionality for identified users as offered by the Sunbird architecture on which NULP's digital infrastructure is built. This aims to detail functional specifications, including dependencies, necessary internal supporting features and optional internal features. While currently only intended to encompass the infrastructure available for initial release, it aims to expand capabilities to incorporate paths forming a variation to the main theme programmatically.

Program Level use cases have been envisioned to outline the possibilities of journey maps to the intended user goal while navigating through the digital infrastructure. These form part of the program design through the identification of the right sequence of actions that need to be performed on the digital interface in order to provide a meaningful, observable result to the end user.

Currently the most robust set of use cases have been highlighted for Urban Local Bodies (ULB)s to outline different User Roles that can be enabled for options of content creation and searchability. The platform provides avenues for information exchange and dissemination by city administrations through discussion forums, updation of e-Notice Boards, publishing of Energised Documents with QR Codes, hosting of webinars with calendar syncing, setting of auto-notifications for citizen updates, creation of blogs, SOPs and manuals for generating civic awareness. Additionally, the core component for all actors remains the creation of both instructor-led and self-paced courses with modules and assessments devised to build capacity within the administrative system. With the evolution of the digital infrastructure, development of user roles and self-paced courses for Industry, Academia and Civil Societies remains underway.

This document aims to outline real system needs and capabilities so as to serve the purpose of being a planning tool for iterative development of the NULP - transforming use cases into successful test cases.

An aerial photograph of a city, likely Manila, Philippines, showing a dense urban landscape with numerous high-rise apartment buildings and commercial structures. In the background, there are rolling hills and mountains under a hazy sky. A large, bright blue diagonal shape cuts across the lower half of the image, containing white text.

DIGITAL INFRASTRUCTURE USE CASES

Category Wise Use Cases

1. Login Use Cases

PL01001: Login with Valid Credentials

| ID | PL01001 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login with Valid Credentials |
| Description | User Log in to the system with credentials provided by system administrator |
| Actor | System User |
| Pre-conditions | User should have the credentials |
| Post-conditions | User is able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to the Portal2. Enter username and password3. Click on sign in button |
| Success Scenario | User Logged in to the system. User can see the contents and courses link. User can see the workspace link. |

PL01002: Login with invalid Credentials

| ID | PL01002 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login with invalid Credentials |
| Description | User Log in to the system with wrong credentials |
| Actor | System User |
| Pre- conditions | User should have the credentials |
| Post- conditions | User is not able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to the Portal2. Enter username and password3. Click on sign in button |
| Success Scenario | User not able to Be Logged in to the system. Messages for wrong credentials should be shown on the screen. |

PL01003: Login without username

| ID | PL01003 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login without username |
| Description | User Log in to the system without providing username |
| Actor | System User |
| Pre- conditions | User should not have the username |
| Post- conditions | User is not able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to the Portal2. Enter username and password3. Click on sign in button |
| Success Scenario | User not able to Be Logged in to the system. Messages for wrong credentials should be shown on the screen. |

PL01004: Login without password

| ID | PL01004 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login without password |
| Description | User Log in to the system without providing password |
| Actor | System User |
| Pre- conditions | User should not have the password |
| Post- conditions | User is not able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to the Portal2. Enter password3. Click on sign in button |
| Success Scenario | User not able to Be Logged in to the system. Message for wrong credentials should be shown on the screen. |

PL01005: Login without username and password

| ID | PL01005 |
|------------------|---------------------------------------------------------------------------------------------------------------|
| Title | Login without username and password |
| Description | User Log in to the system without providing the credentials |
| Actor | System User |
| Pre-conditions | NA |
| Post- conditions | User is not able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to the Portal2. Click on sign in button |
| Success Scenario | User not able to Be Logged in to the system. Messages for wrong credentials should be shown on the screen. |

2. User Use Cases

PL02001: Login as public user

| ID | PL02001 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Public User |
| Description | User Logged in to the system as public user |
| Actor | System User With public privilege |
| Pre- Conditions | Server should be up and running Login credentials should be available |
| Post-conditions | User should be able to view the content and courses |
| Steps | <ol style="list-style-type: none"> 1. Navigate to portal 2. Login as Public user 3. Verify the contents and courses |
| Success Scenario | User should be able to view the content and courses |

PL02002: Profile page verification

| ID | PL02002 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Verify Profile Page |
| Description | User Logged in to the system as public user to verify profile data |
| Actor | System User |
| Pre- Conditions | Server should be up and running Login credentials should be available |
| Post-conditions | User should be able to see the profile page |
| Steps | <ol style="list-style-type: none"> 1. Navigate to Portal 2. Login as Public user 3. Verify the profile page |
| Success Scenario | User should be able to see the profile page. User should be able to see the preference. User to use its privileges |

PL02003: Complete a course

| ID | PL02003 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Complete the Course as a User |
| Description | User should be able to complete the course assigned to him |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Public User credentials should be available 3. Course should be assigned to user |
| Post-conditions | Course status should be completed. |
| Steps | <ol style="list-style-type: none"> 1. Navigate to portal 2. Login as public user 3. Navigate to courses 4. Select course and complete course |
| Success Scenario | User should be able to navigate to the course. User should be able to complete the course. |

PL02004: Create content

| ID | PL02004 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Creator and create Content |
| Description | User Log in to the system as creator privilege to create content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Creator Credentials should be available |
| Post-conditions | User should be able to create a content |
| Steps | <ol style="list-style-type: none">1. Navigate to portal2. Login as creator3. Navigate to workspace4. Select upload content5. Browse the content to be uploaded6. Upload content7. Save content8. Send for review |
| Success Scenario | User should be able to create a content Content should be in Review status Content should come under submitted for review tab |

PL02005: Review content

| ID | PL02005 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Review a content |
| Description | User Log in to the system as reviewer to review a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Reviewer credentials should be available |
| Post-conditions | Content's status should be changed to published |
| Steps | <ol style="list-style-type: none">1. Navigate to portal2. Login as reviewer3. Navigate to workspace4. Navigate to up for review5. Publish the content |
| Success Scenario | Content's status should be changed to Published Content should be available under the link library |

PL02006: Reject content as reviewer

| ID | PL02006 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | User Login to the system as Reviewer and Reject |
| Description | User Log in to the system as reviewer to review a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Creator credentials should be available |
| Post-conditions | Content's status should be changed to Rejected |
| Steps | <ol style="list-style-type: none">1. Navigate to portal2. Login as reviewer3. Navigate to workspace4. Navigate to up for review5. Reject the content |
| Success Scenario | Content's status should be changed to Rejected Content should be available under all my content tab of creator |

PL02007: Create course

| ID | PL02007 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Creator and create Course |
| Description | User Log in to the system as creator privilege to create course |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Creator Credentials should be available |
| Post-conditions | User should be able to create a course |
| Steps | 1. Navigate to portal 2. Login as creator 3. Navigate to workspace 4. Select Resource 5. Browse the content for course 6. Select content 7. Save course 8. Send for review |
| Success Scenario | User should be able to create a course Course should be in Review status Course should come under submitted for review tab |

PL02008: Review course

| ID | PL02008 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Title | Review a Course |
| Description | User Log in to the system as reviewer to review a course |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Reviewer credentials should be available |
| Post-conditions | Course status should be changed to published |
| Steps | 1. Navigate to portal 2. Login as reviewer 3. Navigate to workspace 4. Navigate to up for review 5. Publish the course |
| Success Scenario | Course status should be changed to Published Course should be available under the link courses |

PL02009: Reject course as reviewer

| ID | PL02009 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Title | User Login to the system as Reviewer and Reject |
| Description | User Log in to the system as reviewer to review a course |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Creator credentials should be available |
| Post-conditions | Course status should be changed to Rejected |
| Steps | 1. Navigate to portal 2. Login as reviewer 3. Navigate to workspace 4. Navigate to up for review 5. Reject the course |
| Success Scenario | Course status should be changed to Rejected Course should be available under all my content tab of creator |

PL02010: Create invite only batch

| ID | PL02010 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Creator and Create invite only Batch |
| Description | User Log in to the system to create a batch |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Course Mentor credentials should be available |
| Post-conditions | Batch should be created |
| Steps | <ol style="list-style-type: none"> 1. Navigate to portal 2. Login as course mentor 3. Browse courses 4. Select course 5. Click on create batch 6. Select the option invite-only 7. Select the participant and other mandatory field |
| Success Scenario | Batch should be created |

PL02011: Create open batch

| ID | PL02011 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Creator and Create open Batch |
| Description | User Log in to the system to create a batch |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Course Mentor credentials should be available |
| Post-conditions | Batch should be created |
| Steps | <ol style="list-style-type: none"> 1. Navigate to portal 2. Login as course mentor 3. Browse courses 4. Select course 5. Click on create batch 6. Select the option open 7. Fill mandatory field |
| Success Scenario | Batch should be created Enroll button for the batch should be enable |

PL02012: Block the user

| ID | PL02012 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Block the User |
| Description | User Log in to the system as admin to block a user |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Admin credentials should be available |
| Post-conditions | Blocked user is not able to login to the system |
| Steps | <ol style="list-style-type: none"> 1. Navigate to portal 2. Login as admin 3. Navigate to profile 4. Search the user to block 5. Select user and click block |
| Success Scenario | Blocked user is not able to login to the system |

PL02013: Unblock the user

| | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL02013 |
| Title | Unblock the User |
| Description | User Log in to the system as admin to unblock a user |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Admin credentials should be available |
| Post-conditions | User is not able to login to the system |
| Steps | <ol style="list-style-type: none">1. Navigate to portal2. Login as admin3. Navigate to profile4. Search the user to unblock5. Select user and click unblock |
| Success Scenario | User not able to be Logged in to the system. |

3. Report Use Cases

PL03001: Download Certificate

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03001 |
| Title | Download Certificate |
| Description | User should be able to download the certificate for the completed course |
| Actor | System User |
| Pre-conditions | Course Should be Completed by user |
| Post-conditions | Certificate is available |
| Steps | <ol style="list-style-type: none">1. Login as public user2. Click on profile icon3. Navigate to reports4. Search your batch and download certificate |
| Success Scenario | Certificate should be available to download |

PL03002: Verify course status

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03002 |
| Title | Verify the Status of course |
| Description | Check the current status of the assigned course |
| Actor | System User |
| Pre-conditions | Course should be assigned to user |
| Post-conditions | User can see the current status of the course |
| Steps | <ol style="list-style-type: none">1. Login as public user2. Click on profile icon3. Navigate to reports4. Search your batch and verify the status |
| Success Scenario | User can see the current status of the course |

PL03003: Verify course completion status

| | |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03003 |
| Title | Verify the Status of Completed Course |
| Description | Check the status of the assigned course |
| Actor | System User |
| Pre-conditions | Course should be completed |
| Post-conditions | Certificate available to download |
| Steps | <ol style="list-style-type: none">1. Login as public user2. Click on profile icon3. Navigate to reports4. Search your batch and verify status |
| Success Scenario | Certificate should be available to download |

PL03004: Content creation report

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03004 |
| Title | Verify the Content Creation Report |
| Description | Report for content creation |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none">1. Admin credentials should be available2. Content should be available |
| Post-conditions | Report should be available |
| Steps | <ol style="list-style-type: none">1. Login as creator/admin2. Click on profile icon3. Navigate to reports4. Click on content creation link verify the details |
| Success Scenario | Report should be available |

PL03005: Batch report

| | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03005 |
| Title | Verify the Batch Report |
| Description | Report for batch progress |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none">1. Admin credentials should be available2. Batch should be available |
| Post-conditions | Report should be available |
| Steps | <ol style="list-style-type: none">1. Login as creator/admin2. Click on profile icon3. Navigate to reports4. Click on batch link verify the details |
| Success Scenario | Report should be available |

PL03006: User login report

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03006 |
| Title | Verify the last login time for a user |
| Description | Last login time report |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none">1. Admin credentials should be available2. Users and orgs should be already created |
| Post-conditions | Report should be available |
| Steps | <ol style="list-style-type: none">1. Login as creator/admin2. Click on profile icon3. Navigate to Dashboards and reports4. Click on Orgs and users link verify the last login time |
| Success Scenario | Report should be available |

PL03007: Organisation and User report

| | |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL03007 |
| Title | Verify the Organisation and User Reports |
| Description | User and organisation report |
| Actor | Admin User |
| Pre-conditions | <ol style="list-style-type: none">1. Admin credentials should be available2. Users and organisation should be already created |
| Post-conditions | Report should be available |
| Steps | <ol style="list-style-type: none">1. Login as creator/admin2. Click on profile icon3. Navigate to Dashboards and Reports4. Click on organisation and users link verify the report |
| Success Scenario | Report should be available |

4. Content Use Cases

PL04001: Upload content

| | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL04001 |
| Title | Upload Content |
| Description | User Log in to the system to upload a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content creator credentials should be available |
| Post-conditions | Content should be available in draft mode |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on content 4. Click on start creating button 5. Click on browse button 6. Select pdf file and upload 7. Click on save button and after Click on send for review 8. Enter all mandatory details and save |
| Success Scenario | Content should be available in draft mode |

PL04002: Publish content

| | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL04002 |
| Title | Publish Content |
| Description | User Log in to the system to publish a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Reviewer credentials should be available |
| Post-conditions | Content should be published |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your content 4. Click on publish and select all checkboxes and Click on publish button |
| Success Scenario | Content should be published |

PL04003: Reject content

| | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL04003 |
| Title | Reject Content |
| Description | User Log in to the system to reject a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Reviewer credentials should be available |
| Post-conditions | Content should come back to creator as rejected |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your content 4. Click on require changes and select all checkboxes and give comments 5. Click on reject button |
| Success Scenario | Content should come back to creator as rejected |

PL04004: Status post publishing the content

| ID | PL04004 |
|------------------|--------------------------------------------------------------------------------------------------------------|
| Title | Verify the Content Status After Published |
| Description | Content status after publishing the content |
| Actor | System User |
| Pre-conditions | Server should be up and running Content Creator credentials should be available |
| Post-conditions | Content status should be Live |
| Steps | Login as a Content Creator Navigate to workspace Navigate to allmycontent Verify the Content Status |
| Success Scenario | Content status should be Live |

PL04005: Delete content

| ID | PL04005 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Delete content |
| Description | User Log in to the system to delete a content |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Content should not be available |
| Steps | 1. Login as a content creator 2. Click on workspace 3. Navigate to allmycontent 4. Select required content 5. Click on delete button |
| Success Scenario | Content should not be available |

PL04006: Search & play content

| ID | PL04006 |
|------------------|-------------------------------------------------------------------------------------------------------------------------|
| Title | Search for Content and Play the Content |
| Description | Search and Play a content |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Content should be played |
| Steps | 1. Login as any user 2. Navigate to content 3. Enter particular created content and search 4. Click on content |
| Success Scenario | Content should be played |

PL04007: Search content title

| ID | PL04007 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Content with Title |
| Description | Search a content with title of the content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Content should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to content3. Enter particular created content and search4. Click on content |
| Success Scenario | Content should be displayed |

PL04008: Search content category

| ID | PL04008 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Content with Category |
| Description | Search a content with category of the content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Content should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to content3. Select category and search4. Click on content |
| Success Scenario | Content should be displayed |

PL04009: Search content sub-category

| ID | PL04009 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Content with Sub-Category |
| Description | Search a content with Sub-Category of the content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Content should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to content3. Select sub-category and search4. Click on content |
| Success Scenario | Content should be displayed |

PL04010: Search content topic

| ID | PL04010 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Content with Topic |
| Description | Search a content with topic of the content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Content should be displayed |
| Steps | <ol style="list-style-type: none"> 1. Login as any user 2. Navigate to content 3. Select Topic and search 4. Click on content |
| Success Scenario | Content should be displayed |

PL04011: Search content language

| ID | PL04011 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Content with Language |
| Description | Search a content with language of the content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Content should be displayed |
| Steps | <ol style="list-style-type: none"> 1. Login as any user 2. Navigate to content 3. Select Language and search 4. Click on content |
| Success Scenario | Content should be displayed |

PL04012: Delete as admin

| ID | PL04012 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Admin and Delete Content |
| Description | Delete a content |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Content should not be available |
| Steps | <ol style="list-style-type: none"> 1. Login as a Admin 2. Click on workspace 3. Navigate to all my content 4. Select required content 5. Click on delete button |
| Success Scenario | Content should not be available |

PL04013: Upload large file

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL04013 |
| Title | Upload Content with More Than 50MB File |
| Description | Uploading a content with more than permissible size |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Content is not uploaded |
| Success Scenario | Message: can not upload more than 50 mb file |

5. Course Use Cases

PL05001: Create course

| ID | PL05001 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Course |
| Description | User Log in to the system to create a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content creator credentials should be available |
| Post-conditions | Course created |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on course 4. Click on start creating button 5. Click on new child button 6. Enter all course details 7. Click on add resource button 8. Select resource and Click on proceed button 9. Click on save button and after Click on send for review 10. Enter all mandatory details and save |
| Success Scenario | Course created in draft mode |

PL05002: Publish course

| ID | PL05002 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Publish Course |
| Description | User Log in to the system to publish a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content creator credentials should be available 3. Reviewer credentials should be available |
| Post-conditions | Course is available |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your course 4. Click on publish button select all check boxes and Click on publish button |
| Success Scenario | Course is available in Live mode |

PL05003: Reject Course

| ID | PL05003 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Reject Course |
| Description | User Log in to the system to reject a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Reviewer credentials should be available |
| Post-conditions | Course is in rejected status |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your course 4. Click on require changes button select all checkboxes give comments and Click on reject button |
| Success Scenario | Course is in rejected status Course moves as a draft to creator's queue |

PL05004: Delete course

| ID | PL05004 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Delete Course |
| Description | User Log in to the system to delete a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Course is not available |
| Steps | <ol style="list-style-type: none"> 1. Login as a content creator 2. Click on profile 3. Click on workspace 4. Navigate to allmycontent 5. Select required course 6. Click on delete button |
| Success Scenario | Course should not be available |

PL05005: Search course

| ID | PL05005 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search for Course |
| Description | User Log in to the system to search a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none"> 1. Login as a any user 2. Navigate to course 3. Enter particular created course and search |
| Success Scenario | Course should be displayed |

PL05006: Search course title

| ID | PL05006 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search for Course with Title |
| Description | User Log in to the system to search a course by title |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none"> 1. Login as a any user 2. Navigate to course 3. Enter particular created content and search 4. Click on content |
| Success Scenario | Course should be displayed |

PL05007: Search course category

| ID | PL05007 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search course with category |
| Description | User Log in to the system to search a course by category |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as a any user2. Navigate to course and explore content3. Select category and search4. Click on content |
| Success Scenario | Course should be displayed |

PL05008: Search course sub-category

| ID | PL05008 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search course with Sub-category |
| Description | User Log in to the system to search a course by sub-category |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as a any user2. Navigate to course and explore content3. Select Sub-category and search4. Click on content |
| Success Scenario | Course should be displayed |

PL05009: Search course topic

| ID | PL05009 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search course with topic |
| Description | User Log in to the system to search a course by topic |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as a any user2. Navigate to course and explore content3. Select Topic and search4. Click on content |
| Success Scenario | Course should be displayed |

PL05010: Search course language

| ID | PL05010 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search course with language |
| Description | User Log in to the system to search a course by language |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Course should be displayed |
| Steps | <ol style="list-style-type: none"> 1. Login as any user 2. Navigate to course and explore content 3. Select language and search 4. Click on content |
| Success Scenario | Course should be displayed |

PL05011: Admin delete

| ID | PL05011 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as admin User and Delete Course |
| Description | User Log in to the system to delete a course |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Course should not be available |
| Steps | <ol style="list-style-type: none"> 1. Login as a public user 2. Click on workspace 3. Navigate to all my content 4. Select required content 5. Click on delete button |
| Success Scenario | Course should not be available. |

6. Lesson Plan Use Cases

PL06001: Create lesson plan

| ID | PL06001 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Lesson plan |
| Description | User Log in to the system to create a lesson plan |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Lesson plan is created |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on course 4. Click on start creating button 5. Click on new child button 6. Enter all course details 7. Click on add resource button 8. Select resource and Click on proceed button 9. Click on save button and after Click on send for review 10. Enter all mandatory details and save |
| Success Scenario | Lesson plan should be created |

PL06002: Publish lesson plan

| ID | PL06002 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Publish Lesson plan |
| Description | User Log in to the system to publish a lesson plan |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Lesson plan should be live |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your lesson plan 4. Click on publish and select all checkboxes and Click on publish button |
| Success Scenario | Lesson plan should be live |

PL06003: Reject lesson plan

| ID | PL06003 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Reject the Lesson Plan |
| Description | User Log in to the system to reject a lesson plan |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Lesson plan should have the status draft |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your Lesson plan 4. Click on require changes and select all checkboxes and give comments and Click on reject button |
| Success Scenario | Lesson plan should have the status draft |

PL06004: Delete lesson plan

| | |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL06004 |
| Title | Delete the Lesson Plan |
| Description | User Log in to the system to delete a lesson plan |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Lesson plan should not be available any more |
| Steps | <ol style="list-style-type: none">1. Login as a content creator2. Click on profile3. Click on workspace4. Navigate to all my content5. Select required Lesson plan |
| Success Scenario | Lesson plan should not be available any more |

PL06005: Search lesson plan title

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL06005 |
| Title | Search Lesson plan with Title |
| Description | User Log in to the system to search a lesson plan by title |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Lesson plan should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to lesson plan3. Enter particular created content and search4. Click on content |
| Success Scenario | Lesson plan should be displayed |

PL06006: Search lesson plan category

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL06006 |
| Title | Search Lesson Plan with category |
| Description | User Log in to the system to search a lesson plan by category |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Lesson plan should be displayed |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to lesson plan and explore content3. Select category and search4. Click on content |
| Success Scenario | Lesson plan should be displayed |

PLo6007: Search lesson plan sub-category

| | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|
| ID | PLo6007 |
| Title | Search Lesson Plan with Sub-category |
| Description | User Log in to the system to search a lesson plan by sub- category |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Lesson plan should be displayed |
| Steps | 1. Login as any user 2. Navigate to lesson plan and explore content 3. Select Sub-category and search 4. Click on content |
| Success Scenario | Lesson plan should be displayed |

PLo6008: Search lesson plan topic

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| ID | PLo6008 |
| Title | Search Lesson plan with Topic |
| Description | User Log in to the system to search a lesson plan by topic |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Lesson plan should be displayed |
| Steps | 1. Login as any user 2. Navigate to lesson plan and explore content 3. Select Topic and search 4. Click on content |
| Success Scenario | Lesson plan should be displayed |

PLo6009: Search lesson plan language

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| ID | PLo6009 |
| Title | Search lesson plan with Language |
| Description | User Log in to the system to search a lesson plan by language |
| Actor | System User |
| Pre-conditions | 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Lesson plan should be displayed |
| Steps | 1. Login as any user 2. Navigate lesson plan and explore content 3. Select language and search 4. Click on content |
| Success Scenario | Lesson plan should be displayed |

PL060010: Delete lesson plan

| ID | PL06010 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Login as Public User and delete Lesson plan |
| Description | User Log in to the system to delete a lesson plan |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Lesson plan is not available any more |
| Steps | <ol style="list-style-type: none">1. Login as a public user2. Click on workspace3. Navigate to all my content4. Select required content5. Click on delete button |
| Success Scenario | Lesson plan is not available any more |

7. Collection Use Cases

PL07001: Create collection

| ID | PL07001 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Collection |
| Description | User login to the system to create a collection |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Collection is created |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on course 4. Click on start creating button 5. Click on new child button 6. Enter all course details 7. Click on add resource button 8. Select resource and Click on proceed button 9. Click on save button and add one more resource save after 10. Click on send for review 11. Enter all mandatory details and save |
| Success Scenario | Collection is created |

PL07002: Publish collection

| ID | PL07002 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Publish Collection |
| Description | Users login to the system to publish a collection |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available 3. Reviewer credentials should be available |
| Post-conditions | Collection is live |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your collection 4. Click on publish and select all checkboxes and Click on publish button |
| Success Scenario | Collection is live |

PL07003: Reject collection

| ID | PL07003 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Reject Collection |
| Description | Users login to the system to reject a collection |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available 3. Reviewer credentials should be available |
| Post-conditions | Collection moves to Rejected mode |
| Steps | <ol style="list-style-type: none"> 1. Login as reviewer 2. Navigate to workspace 3. Navigate to up for review and search for your Lesson plan 4. Click on require changes and select all checkboxes and give comments and Click on reject button |
| Success Scenario | Collection moves to Rejected mode |

PL07004: Delete collection

| | |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL07004 |
| Title | Delete Collection |
| Description | Users login to the system to delete a collection |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Collection is not available |
| Steps | <ol style="list-style-type: none">1. Login as a content creator Click on profile2. Click on workspace Navigate to allmycontent3. Select required Collection4. Click on delete button |
| Success Scenario | Collection is not available |

PL07005: Search collection title

| | |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL07005 |
| Title | Search Collection with Title |
| Description | Search a collection by title |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Collection should be available |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to collection3. Enter particular created content and search4. Click on content |
| Success Scenario | Collection should be available |

PL07006: Search collection category

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL07006 |
| Title | Search Collection with Category |
| Description | Search a collection by category |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Collection should be available |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to collection3. Select Category and search4. Click on content |
| Success Scenario | Collection should be available |

PL07007: Search collection topic

| ID | PL07007 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Collection with Topic |
| Description | Search a collection by topic |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Collection should be available |
| Steps | <ol style="list-style-type: none">1. Login as any user2. Navigate to collection3. Select Topic and search4. Click on content |
| Success Scenario | Collection should be available |

PL07008: Search collection language

| ID | PL07008 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Search Collection with Language |
| Description | Search a collection by language |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Login credentials should be available |
| Post-conditions | Collection should be available |
| Steps | <ol style="list-style-type: none">1. Login as a any user2. Navigate to collection3. Select Language and search4. Click on content |
| Success Scenario | Collection should be available |

8. Question Set Resource Use Cases

PL08001: Create question

| ID | PL08001 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Question |
| Description | Create question for assessment |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Question should be available |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on Resource 4. Click on start creating button 5. Click on question mark symbol 6. Click on create question button 7. Select question type (multiple choice question, fill in the blanks etc.) 8. Enter the question and set answers 9. Click on next button and after select level 10. Click on save and create button |
| Success Scenario | Question should be available |

PL08002: Create question set

| ID | PL08002 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Question Set |
| Description | Create Question Set |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Content Creator credentials should be available |
| Post-conditions | Question should be available |
| Steps | <ol style="list-style-type: none"> 1. Login with content creator credentials 2. Click on Workspace 3. Click on Resource 4. Click on start creating button 5. Click on question mark symbol 6. Select already created questions 7. Click on next button 8. Enter the question set title and select display questions 9. Click on add button and Click on shuffle questions 10. Click on preview and verify 11. Click on save button and after send for review 12. Enter all mandatory fields and Click on save |
| Success Scenario | Question should be available |

PLo8003: Publish question set

| | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PLo8003 |
| Title | Publish Question Set |
| Description | publish the question set |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Question set should be live |
| Steps | <ol style="list-style-type: none">1. Login as reviewer2. Navigate to workspace3. Navigate to up for review and search for your question set resource4. Click on publish and select all checkboxes and click on publish button |
| Success Scenario | Question set should be live |

PLo8004: Reject question set

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PLo8004 |
| Title | Reject Question Set |
| Description | Reject Question Set |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Question set should be in Rejected status |
| Steps | <ol style="list-style-type: none">1. Login as a Content Creator2. Navigate to workspace3. Navigate to allmycontent4. Verify the Content Status |
| Success Scenario | Question set should be in Rejected status |

PLo8003: Delete question set resource

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PLo8005 |
| Title | Delete Question Set Resource |
| Description | Delete Question Set Resource |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none">1. Server should be up and running2. Content Creator credentials should be available |
| Post-conditions | Question set should not be available any more |
| Steps | <ol style="list-style-type: none">1. Login as a content creator2. Click on profile3. Click on workspace4. Navigate to allmycontent5. Select required content6. Click on delete button |
| Success Scenario | Question set should not be available any more |

9. Announcement Use Cases (Future)

(Set of use cases to be made available in future iterations)

PLog001: Create announcement

| ID | PLog001 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Create Announcement |
| Description | Create Announcement |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Admin credentials should be available |
| Post-conditions | Announcement should be shown to recipients |
| Steps | <ol style="list-style-type: none"> 1. Login as Admin 2. Click on profile icon and navigate to Announcement dashboard 3. Click on create announcement Enter all mandatory fields 4. Select recipients and confirm recipients 5. Preview recipients 6. Send announcement |
| Success Scenario | Announcement should be shown to recipients |

PLog002: Verify announcement

| ID | PLog002 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Verify Announcement |
| Description | Verify the announcement created |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Login credentials should be available |
| Post-conditions | Announcement should be same as created |
| Steps | <ol style="list-style-type: none"> 1. Login as any user 2. Navigate to home page 3. Verify the announcements |
| Success Scenario | Announcement should be same as created |

PLog003: Delete announcement

| ID | PLog003 |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Delete Announcement |
| Description | Delete Announcement |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Admin credentials should be available |
| Post-conditions | Announcement should not be available |
| Steps | <ol style="list-style-type: none"> 1. Login as Admin 2. Click on profile icon and navigate to Announcement dashboard 3. Delete announcement |
| Success Scenario | Announcement should not be available |

10. Batch Use Cases

PL10001: Create batch

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL10001 |
| Title | Create Batch |
| Description | User log into the system to create a batch |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Course mentor login credentials should be available |
| Post-conditions | Batch should be created |
| Steps | <ol style="list-style-type: none"> 1. Navigate portal 2. Click on course and select one course 3. Click on create batch 4. Select start date and end date and Enter all mandatory fields and assign member 5. Click on create button |
| Success Scenario | Batch should be created |

PL10002: Update batch

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL10002 |
| Title | Update Batch |
| Description | Update Batch parameters |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. Server should be up and running 2. Course mentor login credentials should be available |
| Post-conditions | Batch should be updated successfully |
| Steps | <ol style="list-style-type: none"> 1. Navigate portal 2. Click on Course and select one course 3. Navigate to create batch and click on edit icon 4. Fill up required fields 5. Click on update button |
| Success Scenario | Batch should be updated successfully |

PL10003: Enroll open batch

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID | PL10003 |
| Title | Enrolled Open Batch |
| Description | User enroll for a training |
| Actor | System User |
| Pre-conditions | <ol style="list-style-type: none"> 1. User must have a valid Login Credential to access the Dashboard Page. 2. Course should be available |
| Post-conditions | Training is assigned to the user |
| Steps | <ol style="list-style-type: none"> 1. Login as a public user 2. Navigate to course 3. Search for your course 4. Enroll the course |
| Success Scenario | Training is assigned to the user |

11. Bulk Upload Use Cases (Future)

(Set of use cases to be made available in future iterations)

PL11001: Upload bulk users

| ID | PL11001 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Upload Bulk Users |
| Description | Create user in bulk |
| Actor | System User |
| Pre-conditions | Admin credentials should be available |
| Post-conditions | User should be created |
| Steps | <ol style="list-style-type: none">1. Login as admin2. Click profile icon3. Navigate to organisation and user management4. Click on Upload users5. Select organisation6. Download sample csv file7. Enter values and click on upload users |
| Success Scenario | User should be created |

PL11002: Upload bulk users

| ID | PL11002 |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title | Check Upload Status |
| Description | Check the status for the user upload process |
| Actor | System User |
| Pre-conditions | Admin credentials should be available |
| Post-conditions | Upload success |
| Steps | <ol style="list-style-type: none">1. Login as admin2. Click profile icon3. Navigate to organisation and user management4. Click on check upload status button5. Enter process ID6. Click on check status button |
| Success Scenario | Upload success |

The image features a grayscale aerial photograph of a city, likely Manila, with a prominent blue diagonal shape overlaid on the left side. The text 'PROGRAM LEVEL USE CASES' is centered within this blue shape in a bold, white, sans-serif font. The background shows a dense urban landscape with numerous high-rise buildings and a mountain range in the distance under a cloudy sky.

**PROGRAM
LEVEL
USE CASES**

The use case categories are as follows:

| Category ID | Category Description |
|-------------|----------------------------------|
| C1 | User Role Creation |
| C2 | Content Creation |
| C3 | Content Searchability |
| C4 | Discussion Forum |
| C5 | Auto Notification for Users |
| C6 | E-Notice Board |
| C7 | Energised Document with QR Codes |
| C8 | Instructor Led Courses |
| C9 | DIY Courses - NULP for NULP |
| C10 | Webinars with Calendar |
| C11 | Blogs |
| C12 | SOPs and Manuals |
| C13 | Awareness Creation Modules |
| C14 | Assessments |
| C15 | Content Download |
| C16 | Content Feedback |

1. Stakeholder Interaction

After identification of these categories, the interaction of the stakeholders across these was analysed. The following table demonstrates that interaction:

| | ULB/Cities | Industry | Academia | Civil Society |
|----------------------------------|------------|----------|----------|---------------|
| User Role Creation | | | | |
| Content Creation | | | | |
| Content Searchability | | | | |
| Discussion Forum | | | | |
| Auto Notification for Users | | | | |
| E-Notice Board | | | | |
| Energised Document with QR Codes | | | | |
| Instructor Led Courses | | | | |
| DIY Courses - NULP for NULP | | | | |
| Webinars with Calendar | | | | |
| Blogs | | | | |
| SOPs and Manuals | | | | |
| Awareness Creation Modules | | | | |
| Assessments | | | | |

Category Wise Use Cases

Category 1: User Role Creation

PR01001: Admin Role

| Use Case ID | PR01001 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Admin Role |
| Category | User Role Creation |
| Description | Admin roles will be given to select municipal officials who will be able to view all modules, reports. The admins can view all the stakeholders given access on the portal from his state |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Provide a list of users in a set format 2. The role will be assigned from the backend |
| Concerned Stakeholder | Municipal Officials |

PR01002: Content Creator Role

| Use Case ID | PR01002 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Content Creator Role |
| Category | User Role Creation |
| Description | Though all citizens can contribute content on NULP, but if a city wants to engage a partner for content outsourcing, then the team will be given Content Creator Role |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Provide a list of users in a set format 2. The role will be assigned from the backend 3. Content creator can create the content and link multiple content to create a course |
| Concerned Stakeholder | Municipal Officials, Academicians, Industry partners |
| Critical Factor | Content creators can only create and submit the content. It will get published on NULP only once the Reviewer reviews the content |

PR01003: Content Reviewer Role

| Use Case ID | PR01003 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Content Reviewer Role |
| Category | User Role Creation |
| Description | Any content/ course that is published in NULP will be approved by the reviewer. Reviewers are selected by the cities for their municipality specific contents |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Provide a list of users in a set format 2. The role will be assigned from the backend |
| Concerned Stakeholder | Municipal Officials |

PR01004: Municipal Officers

| Use Case ID | PR01004 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Municipal Officers Role |
| Category | User Role Creation |
| Description | All the municipal officers will be given log in to the portal where they can access all the content and courses. They can acquire certification using NULP. They can also post their queries in the discussion forum in the future. |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Provide a list of users in a set format 2. The role will be assigned from the backend |
| Concerned Stakeholder | Municipal Officials |
| Critical Factor | Platform will have role based access. Once the individual logs in as Municipal Official, only the screens relevant to his role will be visible to him. For instance, webinars, blogs, courses, assessments will be visible in the future. But the consumption reports might not be visible to him |

PR01005: Industries Role Creation

| Use Case ID | PR01005 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Industries Role Creation |
| Category | User Role Creation |
| Description | Industries role will be given to the officials of the partnering industries |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Provide a list of users in a set format 2. The role will be assigned from the backend |
| Concerned Stakeholder | Industries |
| Critical Factor | Industry stakeholders will only be able to see the screens relevant to their roles. For instance, screens like certifications, city, state level dashboards might not be visible to them |

PR01006: Academicians Role Creation

| Use Case ID | PR01006 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Academicians Role Creation |
| Category | User Role Creation |
| Description | Academicians Role is given not only to the academia but also to the research groups, students |
| File Formats | NA |
| Process | <p>Provide a list of users in a set format</p> <p>The role will be assigned from the backend</p> |
| Concerned Stakeholder | Academicians, Students, research groups |
| Critical Factor | Academicians can contribute their research works on the digital interface. They can also consume the researches done by other using NULP |

PR01007: Citizens

| Use Case ID | PR01007 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Citizen Role |
| Category | User Role Creation |
| Description | A user when creating a default login using his email, he is given a Citizen role. A citizen can consume all the public content available on the NULP portal. |
| File Formats | NA |
| Process | Provide a list of users in a set format The role will be assigned from the backend |
| Concerned Stakeholder | Citizens |

Category 2: Content Creation

PR02001: Creation of content on another tool and uploading on NULP

| Use Case ID | PR02001 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Creation of content on another tool and uploading on NULP |
| Category | Content Creation |
| Description | Once the user is logged in the user can upload already created content |
| File Formats | Mp4, ECML, HTML, H5P, PDF |
| Process | <ol style="list-style-type: none"> 1. Log in to the portal 2. Click on upload content button 3. Select content type 4. Upload content |
| Concerned Stakeholder | All |
| Critical Factor | <ul style="list-style-type: none"> • The content will be published to NULP only if the review team approves the content and publishes it • User can only upload the content for which the file format is supported by NULP |

PR02002: Creation of assessments on NULP (Future)

| Use Case ID | PR02002 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Creation of assessments on NULP |
| Category | Content Creation |
| Description | Once the user is logged in, the user can create assessment content on NULP platform itself |
| File Formats | ECML |
| Process | <ol style="list-style-type: none"> 1. Sign up to NULP with Content Creator rights 2. Log in to the portal 3. Click on Create content 4. Select 'Create Question Resources' 5. Add questions 6. Select multiple questions to create one assessment sheet 7. Click Submit for sending it for review |
| Concerned Stakeholder | All individuals with Content Creator rights |
| Critical Factor | <ul style="list-style-type: none"> • The content will be published to NULP only if the review team approves the content and publishes it • If the content is not approved, it will be sent back to the creator for making the required changes |

PR02003: Creation of PDFs on NULP

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR02003 |
| Name | Creation of PDFs on NULP |
| Category | Content Creation |
| Description | Once the user is logged in, the user can create PDF content on NULP. These can be used to create SOPs and Blogs on the portal |
| File Formats | PDF |
| Process | <ol style="list-style-type: none"> 1. Sign up to NULP with Content Creator rights 2. Log in to the portal 3. Click on Create content 4. Select 'Create Word Resource' 5. Add content and images 6. Save the file 7. Click Submit for sending it for review |
| Concerned Stakeholder | All individuals with Content Creator rights |
| Critical Factor | <ul style="list-style-type: none"> • The content will be published to NULP only if the review team approves the content and publishes it • If the content is not approved, it will be sent back to the creator for making the required changes |

PR02004: Creation of slides on NULP

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR02004 |
| Name | Creation of slides on NULP |
| Category | Content Creation |
| Description | Once the user is logged in, the user can create slides on NULP itself. These can be used to create SOPs, Blogs, manuals on the portal. User can add in- teractives in these slides like click of a button to change page, adding read along for explanation of a topic, adding practice questions in between the explanation slides |
| File Formats | ECML |
| Process | <ol style="list-style-type: none"> 1. Sign up to NULP with Content Creator rights 2. Log in to the portal 3. Click on Create content 4. Select 'Create Slides' 5. Add word content, interactives and images in the canvas 6. Save the file 7. Click Submit for sending it for review |
| Concerned Stakeholder | All individuals with Content Creator rights |
| Critical Factor | <ul style="list-style-type: none"> • The content will be published to NULP only if the review team approves the content and publishes it • If the content is not approved, it will be sent back to the creator for making the required changes |

PR02005: Content Review and Publish

| Use Case ID | PR02005 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Content Review and publish |
| Category | Content Creation |
| Description | Though the content on NULP can be created by anyone with the content creator right, a content review team constituted by the city can only approve the content for final publishing. |
| File Formats | Mp4, ECML, HTML, H5P, PDF |
| Process | <ol style="list-style-type: none"> 1. Log in to the portal with content reviewer rights 2. Click on 'Content up for review' 3. Select each content 4. Check for content authenticity, correctness and legality 5. Approve content which are found up to the mark 6. If a content is not up to the mark, send it back for changes to the content creator |
| Concerned Stakeholder | All individuals with Content Reviewer rights |
| Critical Factor | Content reviewers will be selected for each city constituting of representatives of municipal officials from different departments |

Category 3: Content Searchability

PR03001: Basic Content Search

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR03001 |
| Name | Basic Content Search |
| Category | Content Searchability |
| Description | User can search for different types of content on NULP |
| File Formats | Mp4, ECML, HTML, H5P, PDF |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to search option 3. Search for the required content 4. All relevant contents of all formats will be displayed |
| Concerned Stakeholder | All |
| Critical Factor | Searching content does not require login to NULP. A user who is not logged in can also use this feature. All the public content will be displayed in the list |

PR03002: Advance Content Search

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR03002 |
| Name | Advance Content Search |
| Category | Content Searchability |
| Description | User can search for specific type of content on NULP |
| File Formats | Mp4, ECML, HTML, H5P, PDF |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to advance search option 3. Search for City/ State 4. Search for Content type- Blogs, Webinars (future), Courses, Certification 5. Search for domain- Waste management, smart parking, etc. 6. Search for best user rating content 7. Search for most consumed content |
| Concerned Stakeholder | All |
| Critical Factor | Searching content does not require login to NULP. A user who is not logged in can also use this feature. |

Category 4: Discussion Forum (Future)

(Set of use cases to be made available in future iterations)

PR04001: Open Discussion Forum for Municipal officers, industries and academicians

| Use Case ID | PR04001 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Open Discussion Forum for Municipal officers, industries and academicians |
| Category | Discussion Forum |
| Description | Any logged in user who opens the NULP portal can post questions for discussion related to new government initiatives, industry partnerships, courses and certifications offered. This Discussion forum is also used for posting content requirements. ULB Admin can post their need for new content. Academicians can reply if they are willing to contribute content for that topic. |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Open NULP and login using your credentials 2. Open Discussion forum 3. Post question 4. The question is reviewed for relevance and aptness using NLP 5. If the question is found correct, it is published in the discussion forum 6. Each answer posted for the question is also reviewed using NLP to make sure there are no derogatory statements |
| Concerned Stakeholder | Municipal Officers, Industries, Academicians |
| Critical Factor | Any question that is not found appropriate using NLP is not posted on the forum. If a question is posted and the readers find it derogatory, the question can be reported. The core team of municipal body for the city will by default be present in all discussion forums |

PR04002: Closed Discussion Forum for Municipal Officers

| Use Case ID | PR04002 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Closed Discussion forum for Municipal Officers |
| Category | Discussion Forum |
| Description | When a municipal official logs into NULP, he can open his discussion forum to interact with other municipal officials. In this, he can post questions about the certification courses which might be useful, queries on using some tool, latest technology interventions used by other municipalities |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Open NULP using your credentials 2. Open 'Municipal Discussion forum 3. Post question 4. The question is reviewed for relevance and aptness using NLP 5. If the question is found correct, it is published in the discussion forum 6. Each answer posted for the question is also reviewed using NLP to make sure there are no derogatory statements |
| Concerned Stakeholder | Municipal Officers |
| Critical Factor | Any question that is not found appropriate using NLP is not posted on the forum. If a question is posted and the readers find it derogatory, the question can be reported. The core team of municipal body for the city will by default be present in all discussion forums |

PR04003: Closed Discussion Forum for Academicians

| | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR04003 |
| Name | Closed Discussion forum for Academicians |
| Category | Discussion Forum |
| Description | When an Academician logs into NULP, he can open his discussion forum to interact with other academicians. In this he can post questions about the certification courses which might be useful, queries on using some tool, latest technology interventions used by other municipalities, latest content creation tools, interesting blogs, etc. |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Open NULP using your credentials 2. Open 'Academicians Discussion forum' 3. Post question 4. The question is reviewed for relevance and aptness using NLP 5. If the question is found correct, it is published in the discussion forum 6. Each answer posted for the question is also reviewed using NLP to make sure there are no derogatory statements |
| Concerned Stakeholder | Academicians |
| Critical Factor | Any question that is not found appropriate using NLP is not posted on the forum. If a question is posted and the readers find it derogatory, the question can be reported. The core team of municipal body for the city will by default be present in all discussion forums |

PR04004: Closed Discussion Forum for Industries

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR04004 |
| Name | Closed Discussion forum for Industries |
| Category | Discussion Forum |
| Description | When an Industry representative logs into NULP, he can post questions relating to upcoming tenders, new tools, SOPs, manuals |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Open NULP using your credentials 2. Open Industries Discussion forum' 3. Post question 4. The question is reviewed for relevance and aptness using NLP 5. If the question is found correct, it is published in the discussion forum 6. Each answer posted for the question is also reviewed using NLP to make sure there are no derogatory statements |
| Concerned Stakeholder | Industries |
| Critical Factor | Any question that is not found appropriate using NLP is not posted on the forum. If a question is posted and the readers find it derogatory, the question can be reported. The core team of municipal body for the city will by default be present in all discussion forums |

PR04005: Closed Discussion for content co creation

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR04005 |
| Name | Closed Discussion forum for content co creation |
| Category | Discussion Forum |
| Description | When more than one academicians are co creating a content or a course, they can create a discussion forum on NULP |
| File Formats | NA |
| Process | <ol style="list-style-type: none">1. Open NULP using your credentials2. Click on create Discussion forum for content co creation3. Select members4. Click on create forum |
| Concerned Stakeholder | Academicians |
| Critical Factor | For making this kind of content forum, the user can add only those people who have already signed up with NULP as Academicians |

Category 5: Auto Notification for Users

PR05001: Auto Notification for upcoming webinars (Future)

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR05001 |
| Name | Auto Notification for upcoming webinars |
| Category | Auto notification for users |
| Description | Notification on email and/ or phone for upcoming webinars for which user has registered or is relevant to user's profile |
| File Formats | NA |
| Process | When the webinar is scheduled, an auto generated email and mobile message is sent |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries, Citizens |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05002: Auto Notification for upcoming tenders

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR05002 |
| Name | Auto Notification for upcoming tenders |
| Category | Auto notification for users |
| Description | Notifications for the industries about tender notice |
| File Formats | NA |
| Process | Notification on email and/ or phone about tender notice for concerned industry partners |
| Concerned Stakeholder | Industries |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05003: Auto Notification for new courses and certifications

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR05003 |
| Name | Auto Notification for new courses and certifications |
| Category | Auto notification for users |
| Description | Notification sent to the municipal officers, academicians, industries for completing any mandatory/ registered courses and certifications. If there are new technologies/ tools used by industry partners while working with the ULBs, there will be modules for the usage of the new technologies/ tools |
| File Formats | NA |
| Process | Notification on email and/ or phone about tender notice for concerned industry partners |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05004: Auto Notification for mandatory trainings

| Use Case ID | PR05004 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Auto Notification for mandatory trainings |
| Category | Auto notification for users |
| Description | Notification is sent to the Municipal officers for the mandatory training which they should complete. For instance, if there are some new technological interventions for waste management, then the municipal officials working in the waste management department will have to take these mandatory training. Also notifications are sent when new industries are partnering with any ULB, then there can be mandatory training for industries also for building their understanding about the ULB. |
| File Formats | NA |
| Process | Notification on email and/ or phone about mandatory trainings for concerned municipal officials and industry partners |
| Concerned Stakeholder | Municipal Officials, Industry Partners |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05005: Auto Notification for new guidelines issued by the municipality

| Use Case ID | PR05005 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Auto Notification for new guidelines issued by the municipality |
| Category | Auto notification for users |
| Description | Notification is sent to all the stakeholders if there are any new guidelines or public announcements made by the municipalities. For instance, in current scenario, guideline notification for home delivery of essential commodities |
| File Formats | NA |
| Process | Notification on email and/ or phone about new guidelines issued by municipality |
| Concerned Stakeholder | Municipal Officers, Academicians, Citizens and industries |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05006: Auto Notification for new contents up for review

| Use Case ID | PR05006 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Auto Notification for new contents up for review |
| Category | Auto notification for users |
| Description | Content reviewers will get the notification whenever a new content is submitted by any content creator |
| File Formats | NA |
| Process | Notification on email and/ or phone to the content reviewers about the new content uploaded by the content creators |
| Concerned Stakeholder | Content Reviewer |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

PR05007: Auto Notification for content approval/ rejection

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR05007 |
| Name | Auto Notification for new contents up for review |
| Category | Auto notification for users |
| Description | Notification is sent to the content creator. If the content is rejected, the creator can make the required changes in the content and upload it again for review |
| File Formats | NA |
| Process | Notification on email and/ or phone to the content creator about the approval/ rejection of the content uploaded by the him |
| Concerned Stakeholder | Content Creator |
| Critical Factor | While signing up on NULP, users will have to enter either email ID or phone number. These details can be used to send notifications. Also, if the user has installed NULP app in mobile, then app notification can be used to display this information |

Category 6: e-Notice Board (Future)

(Set of use cases to be made available in future iterations)

PR06001: e-Notice board for announcements from the municipality

| Use Case ID | PR06001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | e Notice board for announcements from the municipality |
| Category | e-Notice board |
| Description | Announcements on the home page of NULP |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Login to the NULP 2. Access the eNotice board to see all new announcements |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries, Citizens |
| Critical Factor | Announcements from municipalities can be open for all stakeholders. For instance, disaster management information for situations like COVID 19 will be a public announcement from the municipality. On the other hand, announcements relating to new tools being used for smart city management will be visible to only municipal officers |

PR06002: e-Notice board for announcements from compulsory trainings and certifications

| Use Case ID | PR06002 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | e Notice board for announcements from compulsory trainings and certifications |
| Category | e-Notice board |
| Description | Announcements on the home page of NULP for the logged in user |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Login to the NULP 2. Access the eNotice board to see all new announcements |
| Concerned Stakeholder | Municipal Officers, Industries |
| Critical Factor | Trainings and certification notice board are important because municipal officers can upgrade their skills as there are new tools and technological interventions in their departments |

PR06003: e-Notice board for upcoming tenders

| Use Case ID | PR06003 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | e Notice board for upcoming tenders |
| Category | e-Notice board |
| Description | eNotice board for the industry partners where they can login and see all upcoming tenders. From here they will be redirected to the portal containing the tender details |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Login to the NULP 2. Access the eNotice board to see all new announcements |
| Concerned Stakeholder | Industry Partners |

PR06004: e-Notice board for relevant courses

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR06004 |
| Name | e Notice board for relevant courses |
| Category | e-Notice board |
| Description | Relevant courses based on the previously consumed courses by the user |
| File Formats | NA |
| Process | <ol style="list-style-type: none">1. Login to the NULP2. Access the eNotice board to see all new announcements |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries, Citizens |
| Critical Factor | Artificial intelligence can be used to fetch courses similar to the previously consumed content by the user |

Category 7: Energised Documents with QR Codes (Future)

(Set of use cases to be made available in future iterations)

PR07001: Energised SOPs and manuals

| Use Case ID | PR07001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Energised SOPs and manuals |
| Category | Energised documents with QR codes |
| Description | SOPs and manuals with QR codes. QR codes can be placed at the first page of the SOPs/ manuals and/ or at the critical pointers included in the content |
| File Formats | Pdf, ECML, H5P, HTML |
| Process | <ol style="list-style-type: none"> 1. Scan QR code 2. Access Course |
| Concerned Stakeholder | Municipal Officers, Industries, Academicians, Citizens |

PR07002: Energised instructor led courses

| Use Case ID | PR07002 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Energised SOPs and manuals |
| Category | Energised documents with QR codes |
| Description | All the instructor led courses can be energised and QR codes can be added at the TOC level. The user can select the topic from where he had left the last time he logged in |
| File Formats | Pdf, ECML, H5P, HTML |
| Process | <ol style="list-style-type: none"> 1. Scan QR code 2. Access Course |
| Concerned Stakeholder | Municipal Officers, Industries, Academicians, Citizens |

PR07003: Energised DIY manuals

| Use Case ID | PR07003 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Energised DIY manuals |
| Category | Energised documents with QR codes |
| Description | All the DIY manuals can be energised and QR codes can be added at the TOC level. The user can select the topic from where he had left the last time he logged in. These can be distributed to the users in the form of a poster, bookmark, sticker while organising a workshop. This can be helpful for outreach activities |
| File Formats | Pdf, ECML, H5P, HTML |
| Process | <ol style="list-style-type: none"> 1. Scan QR code 2. Access Course |
| Concerned Stakeholder | Municipal Officers, Industries, Academicians, Citizens |

PR07004: Energised public blogs and policies

| | |
|-----------------------|-------------------------------------------------------------------------------------------------|
| Use Case ID | PR07004 |
| Name | Energised public blogs and policies |
| Category | Energised documents with QR codes |
| Description | All the blogs and policy documents can be energised and QR codes can be added at the TOC level. |
| File Formats | Pdf, ECML, H5P, HTML |
| Process | <ol style="list-style-type: none">1. Scan QR code2. Access Course |
| Concerned Stakeholder | Municipal Officers, Industries, Academicians, Citizens |

Category 8: Instructor Led Courses

PR08001: Instructor led courses for building understanding

| Use Case ID | PR08001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Instructor led courses for building understanding |
| Category | Instructor Led Courses |
| Description | Stakeholders can take these trainings for understanding topics related to their courses |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Open 'Instructor Led Courses' section 3. Alternatively, go to the 'Advance Search' option and choose Instructor Led Course 4. Also choose the topic which is of interest 5. Access numerous courses and choose as per your requirement |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries, Citizens |
| Critical Factor | The instructor led courses are a mix of video lectures, assessment and reading material. Any person consuming instructor led courses will have access to all these components |

PR08002: Instructor led courses for Municipal Officers for certification

| Use Case ID | PR08002 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Instructor led courses for Municipal Officers for certification |
| Category | Instructor Led Courses |
| Description | Municipal Officers can complete their certifications online. These can be mandatory or voluntary training. Mandatory training are the ones which can be useful for promotion, explaining the functioning of a new tool used in their department. etc. |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Open 'Instructor Led Courses' section 3. All pending mandatory training (if any) will be visible at the top of the page 4. Alternatively, features like notifications and e-notice boards can also be used for notifying users for mandatory courses |
| Concerned Stakeholder | Municipal Officers |
| Critical Factor | When Mandatory trainings are used for promotion of the officials, technologies like online proctoring can be used |

PR08003: Instructor led courses for Industries

| Use Case ID | PR08003 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Instructor led courses for Industries |
| Category | Instructor Led Courses |
| Description | Courses which industry partner should undertake for understanding the requirements and functioning of the ULB to ensure correct deliverables |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Open 'Instructor Led Courses' section 3. All instructor led courses for industry partners can be accessed here 4. Alternatively, user can get information about these courses through e-notice boards and notifications on email or messages |
| Concerned Stakeholder | Industries |

PR08004: Instructor led courses by the Industries

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR08004 |
| Name | Instructor led courses by the Industries |
| Category | Instructor Led Courses |
| Description | These are the courses which the industry partners post on NULP for spreading awareness about various tools used in the ULB and the technologies used for different ULB's functioning |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Open 'Instructor Led Courses' section 3. All instructor led courses by the industry partners can be accessed here 4. Alternatively, user can get information about these courses through e-Notice boards and notifications on email or messages |
| Concerned Stakeholder | Industries, municipal officers |

PR08005: Instructor led courses for Academicians

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR08005 |
| Name | Instructor led courses for Academicians |
| Category | Instructor Led Courses |
| Description | Courses which Academicians, research groups, scholars can consume on the NULP |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Open 'Instructor Led Courses' section 3. Alternatively, go to the 'Advance Search' option and choose Instructor Led Course 4. Also choose the topic which is of interest 5. Access numerous courses and choose as per your requirement |
| Concerned Stakeholder | Academicians- Scholars, Researchers, etc. |
| Critical Factor | The instructor led courses are a mix of video lectures, assessment and reading material. Any person consuming instructor led courses will have access to all these components |

Category 9: DIY Courses - NULP for NULP

PR09001: DIY (Do it Yourself) Courses- Content Creation Guide

| Use Case ID | PR09001 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Content Creation Guide |
| Category | DIY Courses- NULP for NULP |
| Description | Useful for Content Creators for contributing content on NULP |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | All Content Creators |
| Critical Factor | <ul style="list-style-type: none"> • This module will be a public module and accessed by all the people willing to contribute content on NULP. This will have all the guidelines for creating the content. It will contain the pointers to be compulsorily included in the content piece. Some of these pointers are: • Content Licensing type • References • Topic • Duration • City • Content Type- Blog/ Manual/ Instructor led course |

PR09002: DIY (Do it Yourself) Courses- Content Upload Guide

| Use Case ID | PR09002 |
|-----------------------|----------------------------------------------------------------------------------------------------------|
| Name | Content Upload Guide |
| Category | DIY Courses- NULP for NULP |
| Description | Useful for Content Creators for uploading content on NULP |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | All Content Creators |
| Critical Factor | This module will be a public module and accessed by all the people willing to contribute content on NULP |

PR09003: DIY (Do it Yourself) Courses- Content Review Guide

| Use Case ID | PR09003 |
|-----------------------|-----------------------------------------------------------------------------------------------|
| Name | Content Review Guide |
| Category | DIY Courses- NULP for NULP |
| Description | Useful for Content Reviewers for reviewing and publishing content and courses on NULP |
| File Formats | Mp4, ECML, pdf (videos with assessment and reading materials) |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | Content Reviewers |
| Critical Factor | The module will have details of both- reviewing content and reviewing course |

PR09004: DIY (Do it Yourself) Courses- Content Editing Guide

| | |
|-----------------------|-----------------------------------------------------------------------------------------------|
| Use Case ID | PR09004 |
| Name | Content Editing Guide |
| Category | DIY Courses- NULP for NULP |
| Description | Useful for content creator for editing content |
| File Formats | Mp4, ECML, pdf |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | Content Creators |

PR09005: DIY (Do it Yourself) Courses- Course Creation Guide

| | |
|-----------------------|-----------------------------------------------------------------------------------------------|
| Use Case ID | PR09005 |
| Name | Course Creation Guide |
| Category | DIY Courses- NULP for NULP |
| Description | Once all the contents are created, these are linked one after the other to create a course |
| File Formats | Mp4, ECML, pdf |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | Content Creators |

PR09006: DIY (Do it Yourself) Courses- How to use NULP

| | |
|-----------------------|-----------------------------------------------------------------------------------------------|
| Use Case ID | PR09006 |
| Name | DIY (Do it Yourself) Courses- How to use NULP |
| Category | DIY Courses- NULP for NULP |
| Description | This module will have all the features of NULP which users can make use of. |
| File Formats | Mp4, ECML, pdf |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Access 'DIY Guide' |
| Concerned Stakeholder | Municipal Officers, Academicians, Industries, Citizens |

Category 10: Webinars with Calendar (Future)

(Set of use cases to be made available in future iterations)

PR10001: Webinars organised for the citizens

| Use Case ID | PR10001 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Webinars organised for the citizens |
| Category | Webinars with calendar |
| Description | Webinars organised by municipalities to spread awareness amongst citizens. |
| File Formats | Live video streaming in mp4 format |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the 'Webinar' section 3. Name of the webinar, speaker, date and time will be mentioned next to each upcoming webinar 4. Register for any webinar 5. Get notification on mobile for the webinar details post registering |
| Concerned Stakeholder | Municipal officers, Academicians, Industries, Citizens |
| Critical Factor | Calendar is an important feature for any event happening in/through the portal. Hence, calendar will have to be included in the portal for the enablement of webinar type of content |

PR10002: Webinars organised by academicians

| Use Case ID | PR10002 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Mandatory webinars for municipal officers |
| Category | Webinars with calendar |
| Description | Webinars organised by municipalities to spread awareness amongst citizens |
| File Formats | Live video streaming in mp4 format |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the 'Webinar' section 3. Name of the webinar, speaker, date and time will be mentioned next to each upcoming webinar 4. Register for any webinar 5. Get notification on mobile for the webinar details post registering |
| Concerned Stakeholder | Academicians, municipal officers, industries, citizens |
| Critical Factor | These webinars are important because the research done by the research groups in one ULB might be useful for other ULBs too. This will ensure cross city/ state operation of NULP. Calendar is an important feature of the webinars which will have to be included in the portal for the enablement of webinar type of content. |

PR10003: Mandatory webinars for municipal officers

| Use Case ID | PR10003 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Mandatory webinars for municipal officers |
| Category | Webinars with calendar |
| Description | These are the webinars which the ULBs conduct to inform/ train the municipal officers. These can also be inter city/ inter state trainings minimising the travel requirements |
| File Formats | Live video streaming in mp4 format |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to 'Webinar' section 3. Name of the webinar, speaker, date and time will be mentioned next to each upcoming webinar 4. Register for any webinar 5. Get notification on mobile for the webinar details post registering |
| Concerned Stakeholder | Municipal Officers |
| Critical Factor | The information about these webinars and the participants can receive the notification to register on their mobile phones through messages/ email ID. The city admins will have the access to nominate the officers. Calendar is an important feature of the webinars which will have to be included in the portal for the enablement of webinar type of content. |

PR10004: Webinars organised by industry partners for explaining tools

| Use Case ID | PR10004 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Webinars organised by industry partners for explaining tools |
| Category | Webinars with calendar |
| Description | When there are new tools added by the industries in the functioning of the ULB, or a new version of a software released, then the users of the tool or software will have to be trained for using it. Industries can conduct webinars for spreading the awareness |
| File Formats | Live video streaming in mp4 format |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to 'Webinar' section 3. Name of the webinar, speaker, date and time will be mentioned next to each upcoming webinar 4. Register for any webinar 5. Get notification on mobile for the webinar details post registering |
| Concerned Stakeholder | Industries, municipal officers |
| Critical Factor | Calendar is an important feature of the webinars which will have to be included in the portal for the enablement of webinar type of content |

PR10005: Conferences and events with calendar feature

| Use Case ID | PR10005 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Conferences and events |
| Category | Conferences and events |
| Description | All the notices relating to the upcoming conferences and the event held by the ULB can be notified in NULP. Also, if the ULB wishes to broadcast the event, the same can be done on NULP |
| File Formats | Mp4 |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Go to 'Upcoming Conferences and Events' 3. Choose the conference/ event you wish to seek further information for |
| Concerned Stakeholder | Municipal Officers, Academicians, Citizens, Industries |

Category 11: Blogs (Future)

(Set of use cases to be made available in future iterations)

PR11001: Blogs written and published by academicians

| Use Case ID | PR11001 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Blogs written and published by academicians |
| Category | Blogs |
| Description | Blogs are open content which can be contributed/ consumed by different users |
| File Formats | ECML, PDF |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the blog section 3. Go to advance search feature to choose the topic 4. Access blog |
| Concerned Stakeholder | Academicians, Municipal Officers, Citizens, Industries |

PR11002: Blogs written and published by municipal authorities

| Use Case ID | PR11002 |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Blogs written and published by municipal authorities |
| Category | Blogs |
| Description | Blogs are open content which can be contributed/ consumed by different users |
| File Formats | ECML and PDF |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the blog section 3. Go to advance search feature to choose the topic 4. Access blog |
| Concerned Stakeholder | Academicians, Municipal Officers, Citizens, Industries |

Category 12: SOPs and Manuals

PR12001: SOPs and manuals shared by industry partners on the tools and machineries

| Use Case ID | PR12001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | SOPs and manuals shared by industry partners on tools and machineries |
| Category | SOPs and manuals |
| Description | For reference for the municipal officers who are using the tools and machineries of the industry partners |
| File Formats | PDF, ECML |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the SOPs and manual section 3. Go to advance search feature to choose the topic 4. Access the required SOP and manual |
| Concerned Stakeholder | Municipal officers, industry partners |

PR12002: SOPs shared by municipal officers on the details of roles and responsibilities for a job

| Use Case ID | PR12002 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | SOPs shared by municipal officers on the details of roles and responsibilities for a job |
| Category | SOPs and manuals |
| Description | For handholding when a new officer joins in |
| File Formats | PDF and ECML |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the SOPs and manual section 3. Go to advance search feature to choose the topic 4. Access the required SOP and manual |
| Concerned Stakeholder | Municipal Officers |

PR12003: SOPs shared by municipal officers on their project or a case study created by them related to the use of tool/ technologies/ human resources/ maintenance in their routine activities

| Use Case ID | PR12003 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | SOPs shared by municipal officers on their project or a case study created by them related to the use of tool/ technologies/ human resources/ maintenance in their routine activities |
| Category | SOPs and manuals |
| Description | For spreading awareness amongst the team members and other ULBs working on similar projects |
| File Formats | PDF and ECML |
| Process | <ol style="list-style-type: none"> 1. Open NULP 2. Go to the SOPs and manual section 3. Go to advance search feature to choose the topic 4. Select- Created by Municipal Officials 5. Access the required SOP and manual |
| Concerned Stakeholder | Municipal Officers |

Category 13: Awareness Creation Modules (Future)

(Set of use cases to be made available in future iterations)

PR13004: Awareness Creation Content for the citizens for spreading authentic information on unforeseen events (like COVID 19)

| Use Case ID | PR13004 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Awareness Creation Content for the citizens for spreading authentic information on unforeseen events (like COVID 19) |
| Category | Awareness Creation Content |
| Description | Awareness content is a public announcement which is required to be sent to a large audience |
| File Formats | PDF, ECML, mp4, H5P, HTML, XML |
| Process | <ol style="list-style-type: none">1. Open NULP2. Go to the Public Announcements3. Access the Awareness Creation Content |
| Concerned Stakeholder | All Citizens |

Category 14: Assessments (Future)

(Set of use cases to be made available in future iterations)

PR14001: Test your skill Assessments

| Use Case ID | PR14001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Test your skill Assessments |
| Category | Assessment |
| Description | General assessment which any user can take to check his understanding about any topic relating to ULBs. For example, solid and liquid waste segregation, functioning of smart poles, double entry accounting, etc. |
| File Formats | ECML, HTML |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Go to 'Test your knowledge' 3. Choose the topic using advanced search 4. Access assessment |
| Concerned Stakeholder | All citizens |

PR14002: Mandatory Promotion related Assessments

| Use Case ID | PR14002 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Mandatory Promotion related Assessments |
| Category | Assessment |
| Description | If a ULB makes it compulsory to pass a certain assessment for promotion to next higher up position, this module can be used |
| File Formats | ECML, HTML, XML |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. Go to 'Test your knowledge' 3. Click on mandatory assessments 4. Access assessment |
| Concerned Stakeholder | Municipal Officers |
| Critical Factor | <ul style="list-style-type: none"> • Use of online proctoring can be done on NULP for monitoring such crucial assessments • Use of technologies like machine learning for displaying the next question to the user |

PR14003: Assessments for changes in the tool

| Use Case ID | PR14003 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Assessments for changes in the tool |
| Category | Assessment |
| Description | Assessment before using a tool which municipal officers should complete |
| File Formats | ECML, HTML, XML |
| Process | <ol style="list-style-type: none">1. Login to NULP2. Go to 'Test your knowledge'3. Click on mandatory assessments4. Access assessment |
| Concerned Stakeholder | Municipal Officers |

PR14004: Assessments for certifications

| Use Case ID | PR14004 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Assessments for changes in the tool |
| Category | Assessments |
| Description | For audience to complete a certification |
| File Formats | ECML, HTML, XML |
| Process | <ol style="list-style-type: none">1. Login to NULP2. Go to 'Test your knowledge'3. Click on mandatory assessments4. Access assessment |
| Concerned Stakeholder | Municipal Officers, Academicians, Citizens |

Category 15: Content Download

PR15001: CC BY Content Download

| | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Case ID | PR15001 |
| Name | CC BY Content Download |
| Category | Content Download |
| Description | The content consumer can download the video and pdf content for consumption later. |
| File Formats | Mp4 PDF |
| Process | <ol style="list-style-type: none">1. Open content2. Click on 'Download Content' |
| Concerned Stakeholder | Municipal Officers, Academicians, Citizens, Industries |
| Critical Factor | <ul style="list-style-type: none">• CC BY are the creative common contents which are freely available and no further licence procurement is required for consuming these content. Hence, for downloading, only CC BY content should be considered• While the content creator creates the content, he/she will have to define the Licensing type of the content. This will be reviewed by the Content Reviewer also.• Through this, we will get the details about what all contents are CC BY |

Category 16: Content Feedback

PR16001: Content Feedback

| Use Case ID | PR16001 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Content Feedback |
| Category | Content Feedback |
| Description | <p>The Feedback will be mandatory for:</p> <ul style="list-style-type: none"> • Certification courses- Only when the feedback is filled will the certificate be issued to the user • Instructor led courses- Only when the feedback is filled will the course be 100% completed • Guidelines for Content creation and review- Only when the feedback is filled will the user be deemed approved for Content creation/ review • But for contents like Blogs, manuals; feedback may or may not be filled by the user |
| File Formats | NA |
| Process | <ol style="list-style-type: none"> 1. Login to NULP 2. View the content 3. Give the feedback |
| Concerned Stakeholder | <p>Feedback can include-</p> <ul style="list-style-type: none"> • Content score out of 5, • Main things learnt, • what did you like in the content, • what did you not like in the content |
| Critical Factor | <p>There are three ways of collecting feedback:</p> <ul style="list-style-type: none"> • Feedback taken in between the course • Feedback taken after the course • Feedback form sent to the user's registered mail ID/ phone number |



About NIUA

Established in 1976, National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanisation and suggest ways and mechanisms to address urban challenges in the country. For more than 40 years now, NIUA has been the vanguard for contributing to, and at times, building the urban narrative for a fast evolving Urban India. The Institution has been actively working on bringing forth key areas of concern for urban India in order to build the urban discourse at various urban scales.

It has utilised its competencies in research, knowledge management, policy advocacy and capacity building to address urban challenges and continuously striving to develop sustainable, inclusive, and productive urban ecosystems in the country. It has emerged as a thought leader and knowledge hub for urban development in India and is sought out by both Indian and International organisations for collaborations and partnerships in India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving Sustainable Development Goals (SDGs) through all its initiatives and programs.

About DFID



The Department for International Development (DFID) leads the UK government's work to improve inclusive growth needed for poverty reduction to make development sustainable in line with the International Development Act (2002), the Gender Equality Act (2014) and the Sustainable Development Goals (SDGs). The UK has expertise in a range of sectors highly relevant to the poverty reduction, inclusive growth and economic development including finance and infrastructure. Helping partner countries develop these sectors and improve their business environment will give firms and people greater opportunities to work in a stronger, more productive economy.

By 2030, India will become the most populous nation and third by GDP size (=>USD 5 billion). India's development trajectory in the next decade presents significant opportunities and challenges for global development.

India-UK development partnership is focussed on inclusive economic development through building markets using development capital investment and technical assistance.



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