Test Plan Documentation for

**Campus Collab**

**Student Material Management System**

**Login Form**

This section covers the testing of the login functionality for the CampusCollab platform. It includes test cases to validate the system's behavior when users enter valid credentials, invalid credentials, or leave fields empty during the login process. The expected results ensure that the system correctly authenticates users and denies access for unauthorized attempts.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Enter valid email and password, click Login | System should display the main dashboard | Successful |
| 2 | Enter invalid email and/or password | System should display an error message | Successful |
| 3 | Leave email or password field empty, click Login | System should display an error message | Successful |
| 4 | Attempt to login as an unauthorized user | System should deny access and display an error | Successful |

**User Registration**

The user registration section focuses on testing the account creation process. It verifies that users can successfully register by providing all required information, and checks the system's response to incomplete registrations, duplicate email addresses, and invalid data formats. These test cases help ensure the integrity and security of the user account management system.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Fill in all required registration fields correctly, click Register | System should create a new user account and redirect to login page | Successful |
| 2 | Leave any required registration field empty, click Register | System should display an error message asking to fill in all fields | Successful |
| 3 | Enter an email address that is already registered | System should display an error message indicating the email is already in use | Successful |
| 4 | Enter invalid data formats (e.g., non-numeric for phone number) | System should display an error message asking for valid input | Successful |

**Search and Browse Materials**

This section examines the platform's search and browsing functionality. The test cases cover searching for materials by various filters, applying sorting and filtering options, handling scenarios where no results are found, and validating the display of search results.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Search for materials by university, semester, course, and file type | System should display relevant search results with options to preview and download | Successful |
| 2 | Apply sorting and filtering options (e.g., by upload date, rating, popularity) | System should update the search results based on the selected sorting and filtering | Successful |
| 3 | Attempt to search with no filters applied | System should display a comprehensive list of all available materials | Successful |
| 4 | Search for a material that does not exist in the database | System should display a message indicating no results found | Successful |

**Material Upload**

The material upload section tests the system's ability to handle file uploads by users. It verifies the successful addition of new materials to the database, validates the system.

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| Sl No. | Test Case | Expected Result | Test Result |
| 1 | Fill in all required upload fields correctly, attach a file, click Upload | System should add the new material to the database and update the user’s upload history | Successful |
| 2 | Leave any required upload field empty, click Upload | System should display an error message asking to fill in all fields | Successful |
| 3 | Upload a file that exceeds the maximum allowed size | System should display an error message indicating the file size limit has been exceeded | Successful |
| 4 | Upload a file with an unsupported format | System should display an error message listing the supported file formats | Successful |
| 5 | Attempt to upload a duplicate material (same course, semester, and file type) | System should display a warning message and ask the user to confirm the upload | Successful |

**Material Download**

This section focuses on testing the download process for educational materials. The test cases cover initiating downloads, handling offline scenarios, and verifying the availability of downloaded materials. It also includes tests for the user's download history feature.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Click the download button for a material | System should initiate the download of the material in its original format | Successful |
| 2 | Download a material while offline | System should display an error message indicating the need for an internet connection | Successful |
| 3 | Download a material that has been removed by an administrator | System should display a message stating that the material is no longer available | Successful |
| 4 | View the user’s download history | System should display a list of all materials downloaded by the user | Successful |

**User Profile Management**

The user profile management section validates the system's ability to allow users to update their personal information, view their uploaded materials and download history, and manage their account settings. These test cases ensure the platform provides users with the necessary tools to control and maintain their profile data.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Update user profile information (e.g., name, email, password) | System should update the user’s profile and display a success message | Successful |
| 2 | Attempt to update the profile with invalid data (e.g., non-unique email) | System should display an error message indicating the issue | Successful |
| 3 | View the user’s uploaded materials and download history | System should display the relevant information in the user’s profile | Successful |
| 4 | Deactivate or delete the user account | System should remove the user’s access and data from the platform | Successful |

**Community Features**

This section tests the platform's community-based features, such as material rating, feedback, bookmarking, and discussion forums. The test cases cover the functionality, user interactions, and data integrity of these collaborative elements within the CampusCollab system.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Rate a material and provide feedback | System should update the material’s rating and display the feedback | Successful |
| 2 | View the ratings and feedback for a material | System should display the aggregated ratings and user comments | Successful |
| 3 | Bookmark or “like” a material | System should update the user’s profile with the bookmarked/liked materials | Successful |
| 4 | Participate in the discussion forum | System should allow the user to post, reply, and view forum discussions | Successful |

**Accessibility and Responsiveness**

The accessibility and responsiveness section ensures the platform meets web accessibility standards and provides a consistent user experience across various devices and input methods. These test cases cover responsive layout, keyboard navigation, screen reader compatibility, and color contrast compliance.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Access the platform using various devices and screen sizes | System should maintain a consistent and responsive layout across devices | Successful |
| 2 | Navigate the platform using only the keyboard | System should allow full functionality without the need for a mouse | Successful |
| 3 | Use the platform with a screen reader | System should provide proper ARIA labels and descriptions for screen reader compatibility | Successful |
| 4 | Ensure the platform meets WCAG guidelines for color contrast and accessibility | System should pass accessibility testing and provide a high-contrast mode | Successful |

**Administrative Features**

The administrative features section focuses on testing the system's management capabilities for platform administrators. It includes test cases for logging in as an admin, moderating user-uploaded content, generating reports, managing user accounts, and integrating the platform with external systems.

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| SL. No. | Test Case | Expected Result | Test Result |
| 1 | Log in as an administrator and access the admin dashboard | System should display the admin dashboard with all administrative tools | Successful |
| 2 | Moderate user-uploaded materials (e.g., remove inappropriate content) | System should allow administrators to review and remove materials as needed | Successful |
| 3 | Generate reports on platform usage, user activity, and content trends | System should provide downloadable reports in various formats (e.g., PDF, CSV) | Successful |
| 4 | Manage user accounts (e.g., create, update, deactivate) | System should allow administrators to perform user management tasks | Successful |
| 5 | Integrate the platform with external systems (e.g., university databases) | System should support integration with educational platforms and APIs | Successful |