

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering B. Tech (CSE) – 5th Semester – Aug-Dec 2024

UE22CS341A - Software Engineering Test Plan Documentation

EXAM CENTRE MANAGEMENT SYSTEM

Team #: 25

| PES2UG22CS003 | AAKANKSH SEELIN |
|---------------|---------------------|
| PES2UG22CS032 | ADITI ROOPESH MIRJI |

| Test Case ID | Name of Module | Test Case Description | Pre-conditions | Test Steps | Test Data | Expecte d Results | Actual Results | Test Result |
|--------------------|----------------------------|--|---|---|--|------------------------------|--|----------------|
| UT-01 | Member valid login | Login through member credentials | Login possible only if registered account. Access to browser. | Click on member login. Enter username and password, click on submit | Username: john_doe Pwd: member123 | Login to member portal | Login to member portal | Pass |
| UT-02 | Member invalid login | Login through invalid member credentials | Login possible only if registered account. Access to browser. | Click on member login. Enter username and password, click on submit | Username: abc_x Pwd: member124 | Display error message | Display error message, "Invalid login" | Pass |
| UT-03 | Admin valid login | Login through admin credentials | Login possible only if registered account. Access to browser. | Click on admin login. Enter username and password , click on submit | Username: admin Pwd: admin123 | Login to admin portal | Login to admin portal | Pass |

| UT-04 | Admin invalid login | Login through invalid admin credentials | Login possible only if registered account. Access to browser. | Click on admin login. Enter username and password , click on submit | Username: admin3 Pwd: admin1234 | Display error message | Display error message, "Invalid login" | Pass |
|-------|---|--|---|---|---|---|---|------|
| UT-05 | Add Book | Admin can successfully add a new book | Login through valid admin credentials | Add book with valid ISBN, title, author, and category. Successfully stored in the database. | ISBN: 123456789012 3 Title: organic chemistry Author: xyz Category: Chemistry | Book added and stored in the database | Book added and stored in the database | Pass |
| UT-06 | Add Book with incorrect ISBN format | Book cannot be added due to incorrect format. | Login through valid admin credentials | Add book with invalid ISBN, not stored in the database. | ISBN: 123456789012 Title: organic chemistry Author: xyz Category: Chemistry | Error message: "Incorre ct ISBN format | Error message: "Incorrect ISBN format | Pass |
| UT-07 | Borrow Book | Member can successfully borrow a book | Login through valid member credentials | Click on borrow book and select desired book | 'learn chemistry fundamentals' | Book borrowe d successf ully | Book borrowed successful ly | Pass |
| UT-08 | Borrow book that does not exist | Member cannot borrow a book that does not exist in the database. | Login through valid member credentials | Click on borrow book and select desired book | 'Learn Rust programming' | Display error message as book does not exist in inventor y | Display error message as book does not exist in inventory | Pass |
| UT-09 | Return book | Member can return borrowed book | Login through valid member credentials | Click on return book and return borrowed book | 'Learn chemistry fundamentals' | Book returne d successf ully | Book returned successful ly | Pass |

| UT-10 | Return book not borrowed | Member cannot return book not borrowed | Login through valid member credentials | Click on return book and return borrowed book | 'Engineering Mechanics' | Display , No book to return' | Display ' No book to return' | Pass |
|-------|---|--|--|--|---|---|--|------|
| UT-11 | Delete book | Verify that an admin can successfully delete a book | Login through valid admin credentials book | Select the desired book and click on delete book | ' Mechanical Engineering principles' | Book deleted successf ully | Book deleted successful ly | Pass |
| UT-12 | Deleting a book that has been borrowed | Verify that an admin cannot delete a book that has been borrowed currently | Login through valid admin credentials and click on delete book | Select the desired book and click on the delete book option. | ' Learn Chemistry Fundamentals' | Display error message "borrow ed book cannot be deleted" | Display error message "borrowe d book cannot be deleted" | Pass |
| UT-13 | Edit book details | Verify that an admin can edit details of a book stored in the inventory. | Admin must be logged in with valid credentials. | Navigate to the "Edit Book" section. Select the book to be edited and modify its details. Save the changes | ISBN: 123456789012 3 New Title: Advanced Chemistry | The book details are updated successfully and reflect the changes. | The book details are updated successful ly and reflect the changes. | Pass |
| UT-14 | Attempt to edit non existing book | Verify that editing a book that does not exist in the database shows an error. | Admin must be logged in with valid credentials. | Navigate to the "Edit Book" section. Enter a non- existent ISBN. | ISBN: 100400800901 1 | Display error message: "Book not found." | "Book not found." | Pass |

| UT-15 | Add Member | Verify that an admin can add a new member to the system successfully. | Admin must be logged in with valid credentials. | Navigate to the "Add Member" section. Enter the new member's details and submit the form | Username: aathil_nishad □ Password: pass123 □ Email: aathilnishad@g mail.com | Membe r added and stored in the database , visible in the member list | Member added and stored in the database, visible in the member list | Pass |
|-------|---|--|--|--|--|---|---|------|
| UT-16 | Add Member with Existing Username | Verify that adding a member with an existing username shows an error. | Admin must be logged in, and the username must already exist in the database. | Navigate to the "Add Member" section. Enter an existing username and submit the form | Username: David_miller | Display error message: "Userna me already exists." | "Usernam e already exists." | Pass |
| UT-17 | Update Member Informati on | Verify that an admin can update a member's details successfully. | Admin must be logged in with valid credentials, and the member should exist in the database. | Navigate to the "Edit Member" section. Select a member and update the details. | Username: john_doe New Email: john_doe_upd ated@example. com | Membe r details are updated in the database | Member details are updated in the database. | Pass |
| IT-01 | View Books | Verify that the system fetches and displays the list of all books | Login either through member or admin credentials | Select the view books option. | Book stored in the database with all their details. | List of all books with all details. | List of all books with all details. | Pass |

| IT-02 | Search Books | Verify that the system allows users to search for books by title, author, or category | Login either through member or admin credentials. | Select the view books option and click on search | 'Software Engineering' | Display the book 'Softwar e Enginee ring' | Display the book 'Software Engineeri ng' | Pass |
|-------|--|---|---|--|--|---|---|------|
| IT-03 | Search books using author name | Verify that the system allows users to search for books by title, author, or category | Login either through member or admin credentials. | Select the view books option and click on search | Author: 'Ian Stewart' | Display book 'Elemen ts of number theory' | Display book 'Elements of number theory' | Pass |
| IT-04 | Search book that does not exist | Verify that the system allows users to search for books by title, author, or category | Login either through member or admin credentials. | Select the view books option and click on search | "Elements of electrical engineering" | Display error message as book does not exist in inventor y | Display error message as book does not exist in inventory | Pass |
| IT-05 | View Members | Verify that the admin can view the list of all registered members, including their details | Login through valid admin credentials | Select the view members option after logging in. | List of all members registered and stored in the database. | Display the list of all registere d member s with all their details. | Display the list of all registered members with all their details. | Pass |

| IT-06 | Search member | Verify that the admin can view all the details of a registered member | Login through valid admin credentials | Select the view member option, search for a particular member. | "john_doe" | Name, usernam e, email , status of john_do e | Name, username , email , status of john_doe | Pass |
|-------|---------------------------------------|--|---|---|----------------|---|--|------|
| IT-07 | Search member not registered | Verify that the admin can not view the details of a member not registered. | Login through valid admin credentials. | Select the view member option, search for a particular member. | Harry_wilson | Error, member does not exist | Error, member does not exist | Pass |
| IT-08 | View member transaction s | Verify that the admin can view the transaction history for a selected member | Login through valid admin credentials. | Select the view member transactions and choose a registered member | david_miller | The list of all books borrowe d/retur ned | The list of all books borrowed /returned | Pass |
| IT-09 | View Overdue Books | Verify that the admin can view a list of books that are overdue. | Admin must be logged in with valid credentials. | Navigate to the "Overdue Books" section. View the list of overdue books | None required. | Display a list of books that are overdue , with member details and due dates. | Book: 'Learn Chemistry Fundamen tals' Name: John_doe Date: 7/11/24 | Pass |

| IT-10 | Check Duplicate Book Entry Prevention | Verify that the system prevents the addition of duplicate books. | Admin must be logged in with valid credentials. | Navigate to the "Add Book" section. Enter the details of an existing book (same ISBN) | SBN: 123456789012 3 | Display error message: "Book with this ISBN already exists." | Display error message: "Book with this ISBN already exists." | Pass |
|-------|--|--|---|---|--|--|---|------|
| ST-01 | My transaction s | Verify that a member can view their transaction history. | Login through valid member credentials. | Select my transactions option | John_doe | The list of all transacti ons associate d with the member | The list of all transactions associated with the member | Pass |
| ST-02 | Borrow and return book | Verify that the system updates the book availability status correctly when a member borrows and returns a book | Login through valid member credentials to first borrow a book, Login through valid admin credentials to check status | Select a book to borrow/return Click on a particular book to check status. | John_doe Borrow: 'Learn chemistry fundamentals' | Display 'learn chemist ry fundam entals status as "borrow ed by john_do e" | Display 'learn chemistry fundame ntals status as "borrowe d by john_doe " | Pass |

| ST-03 | Fine Calculatio n | Verify that the system calculates the due date and fine correctly when a member borrows and returns a book | Login through valid admin credentials. | Select view member transactions and select a member. | David_miller Borrwed book: 'Engineering Mechanics" Borrow date: 24/10/24 Expected Return date: 7/11/24 Return date: 9/11/24 | Fine of 50Rs per day since expecte d date of return. Total fine: 100 Rs | Fine of 50Rs per day since expected date of return. Total fine: 100 Rs | Pass |
|-------|----------------------------|---|---|---|---|--|---|------|
| ST-04 | Delete book | Verify that the system prevents any pending transactions (borrows or returns) for a deleted book | Login through valid admin credentials. | Navigate to Delete Book section Search for the book to be deleted Select the book Click Delete button Check transaction records Check book status | ISBN: "97801323508 84" Title: "Clean Code" Status: "Borrowed" | Warnin g message displaye d: "Canno t delete book - Active borrowe rs exist" | Warning message displayed: "Cannot delete book - Active borrower s exist" | Pass |
| ST-05 | Register Member | Verify that the newly registered member can successfully login and access the member portal | Login through newly created member credentials | Navigate to the member login section and login through newly created member credentials. | Username: David_miller Password: member123 | Successf ul login into the member portal | Successful login into the member portal | Pass |
| ST-06 | Member portal access | Verify that an admin can not access any | Login through admin credentials into the member | Navigate to the member login section and login through admin | Username: admin Password: | Display message: "Cannot login to | Display message: "Cannot login to | Pass |

| | | member's portal | portal | credentials. | admin123 | member portal" | member portal" | |
|-------|---------------------------------|---|-------------------------------|--|-----------------------|---|------------------------------------|------|
| ST-07 | Password Reset for Member | Verify that a member can reset their password successfully. | Member must be registered. | Navigate to the "Forgot Password" section. Enter the member's username and receive a reset link. Follow the link and set a new password. | Username: john_doe | Passwor d reset successfu l and member can log in with the new password . | and member can log in with the new | Pass |