Library Management System

Test Cases

IS5113: Software Quality Assurance

Group 21

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1. Unit Testing for Members

I. User Registration and Profile Navigation for Members

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UT-01	Test member registration and validation	None	1. Navigate to registration page 2. Enter valid data (name, email, username, password) 3. Submit the form	Member registered successfully with confirmation	Member registered successfully	Pass
UT-02	Test registration with invalid email format	None	1. Navigate to registration page 2. Enter invalid email format 3. Submit the form	Error message displayed for invalid email	Error message displayed correctly	Pass

II. Borrowing Books as a Member

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UT-03	Test borrowing a book	Member is logged in	1. Navigate to profile page 2. Click "Borrow Book" 3. Select and confirm	Book borrowed successfully and appears in profile	Book successfully borrowed	Pass

III. Editing Profile for Members

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UT-04	Test editing member profile information	Member is logged in	1. Navigate to the profile page 2. Click on "Edit Profile" 3. Update the user details (e.g., name, email) 4. Save the changes	Profile is successfully updated	Member profile updated successfully	Pass

IV. Deleting Profile for Members

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UT-05	Test deleting member profile	Member is logged in	1. Navigate to the profile page. 2. Click on "Delete Profile". 3. Confirm profile deletion.	Member profile is successfully deleted	Profile successfully deleted and user logged out	Pass

V. Logging Out as a Member

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UT-06	Test logging out as a member	Member is logged in	1. Click on "Logout" from the profile page.	Member is logged out and redirected to login page	Member successfully logged out	Failed

2. Unit Testing for Admins

I.   User Registration and Profile Navigation for Admins

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-01	Test admin registration and navigation to profile	None	1. Navigate to the registration page. 2. Register as an admin. 3. After successful registration, system navigates to profile.	Admin is registered and navigated to the profile page	Admin successfully registered and redirected to profile	Pass
UA-02	Test invalid admin registration	None	1. Navigate to the registration page 2. Enter invalid email format 3. Submit the form	Error message displayed for invalid email	Error message displayed correctly	Pass
UA-03	Test admin navigation after login	Admin is registered	1. Log in as an admin 2. Verify successful login 3. Navigate to the profile page	Admin is navigated to the profile page	Admin successfully navigated to profile page	Pass

II.   Adding Books as an Admin

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-04	Test adding a new book	Admin is logged in	1. Navigate to Add Book page 2. Enter valid book details (title, author, ISBN) 3. Submit the form	Book added successfully and displayed in book list	Book added successfully	Pass

III.   Viewing, Editing, and Deleting Books as an Admin

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-05	Test editing book details	Admin is logged in	1. Navigate to Edit Book page 2. Update book details 3. Submit the changes	Book details updated successfully	Book updated successfully	Pass

IV.   Editing Profile for Admins

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-06	Test editing admin profile information	Admin is logged in	1. Navigate to the profile page. 2. Click on "Edit Profile". 3. Update the admin details (e.g., name, email). 4. Save the changes.	Profile is successfully updated	Admin profile updated successfully	Pass

V.   Deleting Profile for Admins

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-07	Test deleting admin profile	Admin is logged in	1. Navigate to the profile page. 2. Click on "Delete Profile". 3. Confirm profile deletion.	Admin profile is successfully deleted	Profile successfully deleted and admin logged out	Pass

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UA-08	Test logging out as an admin	Admin is logged in	1. Click on "Logout" from the profile page.	Admin is logged out and redirected to login page	Admin successfully logged out	Pass

3. Acceptance testing

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
UAT-01	Acceptance test for admin registration and profile navigation	None	1. Navigate to the registration page 2. Register as an admin with valid details 3. Verify navigation to admin profile page after successful registration	Admin is successfully registered and navigated to the profile page	Admin registered and redirected to profile page	Pass
UAT-02	Acceptance test for member registration	None	1. Navigate to the member registration page 2. Enter valid member details 3. Submit the form 4. Verify successful registration and profile access	Member is registered and profile is accessible	Member successfully registered and can access profile	Failed

| UAT-03 | Acceptance test for adding a new book by admin | Admin is logged in | 1. Navigate to the "Add Book" page
2. Enter valid book details (title, author, ISBN)
3. Submit the form
4. Verify book is added to the system | Book is successfully added and displayed in the book list | Book successfully added and displayed in the system | Pass |
| UAT-04 | Acceptance test for borrowing a book as a member | Member is logged in | 1. Navigate to the member profile page
2. Click on "Borrow Book"
3. Select a book and confirm the borrow
4. Verify book is added to the borrowed list | Book is successfully borrowed and displayed in the borrowed section | Book borrowed successfully and listed in profile | Pass |

4. System testing

Test Case ID	Description	Pre-conditions	Test Steps	Expected Result	Actual Result	Status
ST-01	Verify successful member registration with valid inputs.	None	1. Open the registration page. 2. Enter valid details (Name, Email, Password, Address). 3. Submit the form.	Member is registered successfully, and a confirmation message is shown	Member is registered successfully, and a confirmation message is shown	Pass

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ST-02	Verify error handling for missing mandatory fields.	None	1.Open the registration page. 2.Leave one or more mandatory fields (Email) empty. 3. Submit the form.	Error message indicating the mandatory field must be filled.	Error message indicating the mandatory field must be filled.	Pass
TC-03	Verify the ability to edit member profile details.	None	1.Log in as a registered member. 2.Navigate to the profile section. 3.Update the email address and save changes.	The profile is updated successfully, and the new details are displayed.	The profile is updated successfully, and the new details are displayed.	Pass
ST-04	Verify the ability to delete a member profile.	None	1. Log in as a registered member. 2.Navigate to the profile section. 3.Delete the profile.	Profile is deleted, and the member can no longer log in.	Profile is not deleted.	Failed
ST-05	Verify successful addition of a new book with valid details.	None	1.Log in as an admin. 2.Go to the "Add New Book" section. 3.Enter valid details (Title, 4. 4.Author, ISBN, Category). Submit the form.	Book is added successfully, and a confirmation message is shown.	Book is added successfully, and a confirmation message is shown.	Pass