

Library Management System

Test Execution Report

IS5113: Software Quality Assurance

Group 21

| Index Number | Name |
|--------------|----------------|
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Test Execution Report

Project Name: Library Management System | **Created By:** Group 21

Date of Creation: 15/09/2024

Test Execution Summary

1. Unit Testing

| | |
|-----------------------|---------------------------|
| Test Suite Name | Library Management System |
| Test Execution Date | 25/09/2024 |
| Test Executed By | DSC Wijesinghe |
| Environment | |
| Database | MySQL |
| Application Server | Apache PHP |
| Test Tool | JUnit |
| Network Configuration | Local Network |
| Total Test Cases | 14 |
| Passed | 13 |
| Failed | 1 |
| Skipped | 0 |

2. Acceptance Testing

| | |
|-----------------------|---------------------------|
| Test Suite Name | Library Management System |
| Test Execution Date | 25/09/2024 |
| Test Executed By | DSC Wijesinghe |
| Environment | |
| Database | MySQL |
| Application Server | Apache PHP |
| Test Tool | Selenium |
| Network Configuration | Local Network |
| Total Test Cases | 4 |
| Passed | 3 |
| Failed | 1 |
| Skipped | 0 |

3. System Testing

| | |
|-----------------------|---------------------------|
| Test Suite Name | Library Management System |
| Test Execution Date | 25/09/2024 |
| Test Executed By | DSC Wijesinghe |
| Environment | |
| Database | MySQL |
| Application Server | Apache PHP |
| Test Tool | Selenium |
| Network Configuration | Local Network |
| Total Test Cases | 5 |
| Passed | 4 |
| Failed | 1 |
| Skipped | 0 |

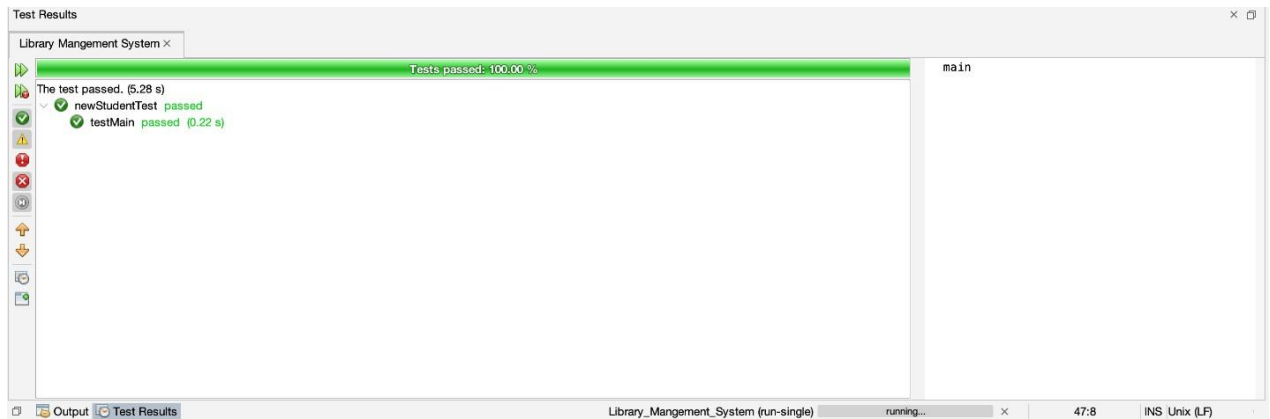
Detailed Test Case Execution Results

1. Unit Testing for Members

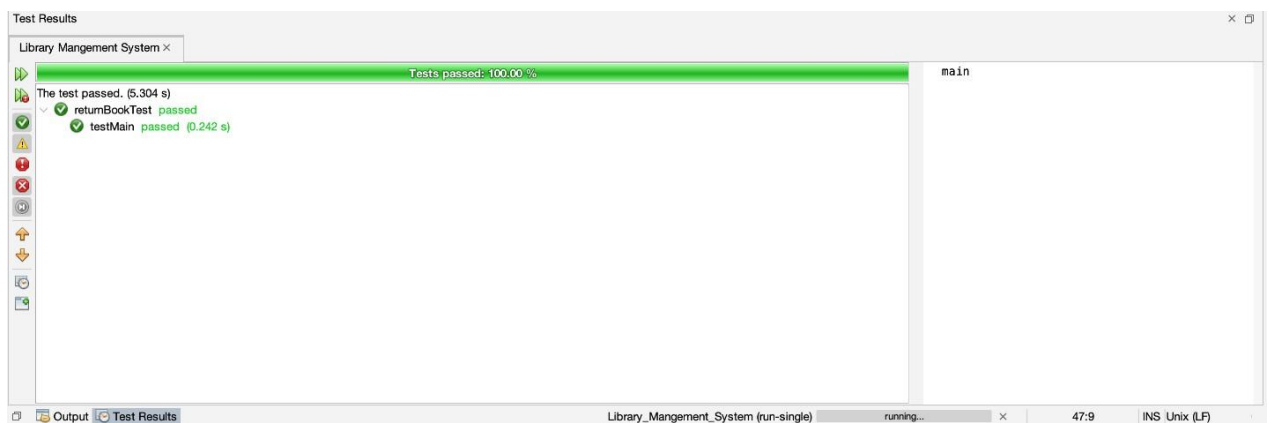
| Test Case ID | Description | Expected Result | Actual Result | Pass/Fail | Comments |
|--------------|---|---|-------------------------------------|-----------|----------------------------|
| UT-01 | Test member registration and validation | Member registered successfully with confirmation | Member registered successfully | Pass | |
| UT-02 | Test registration with invalid email format | Error message displayed for invalid email | Error message displayed correctly | Pass | |
| UT-03 | Test borrowing a book | Book borrowed successfully and appears in profile | Book successfully borrowed | Pass | |
| UT-04 | Test editing member profile information | Profile is successfully updated | Member profile updated successfully | Pass | |
| UT-05 | Test deleting member profile | Member profile is successfully deleted | Profile successfully deleted | Pass | |
| UT-06 | Test logging out as a member | Member is logged out and redirected to login page | Member successfully logged out | Fail | Issue with logout handling |

2. Unit Testing for Admins

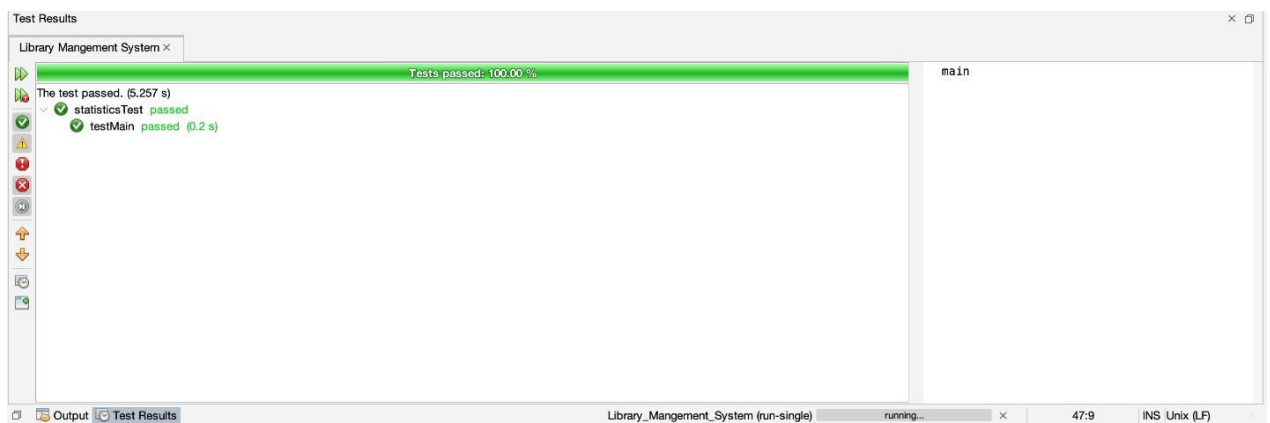
| Test Case ID | Description | Expected Result | Actual Result | Pass/Fail | Comments |
|--------------|--|---|-----------------------------------|-----------|----------|
| UA-01 | Test admin registration and profile navigation | Admin is registered and navigated to the profile page | Admin successfully registered | Pass | |
| UA-02 | Test invalid admin registration | Error message displayed for invalid email | Error message displayed correctly | Pass | |
| UA-03 | Test admin navigation after login | Admin is navigated to the profile page | Admin successfully navigated | Pass | |
| UA-04 | Test adding a new book | Book added successfully and displayed in book list | Book added successfully | Pass | |
| UA-05 | Test editing book details | Book details updated successfully | Book updated successfully | Pass | |



New Student Test

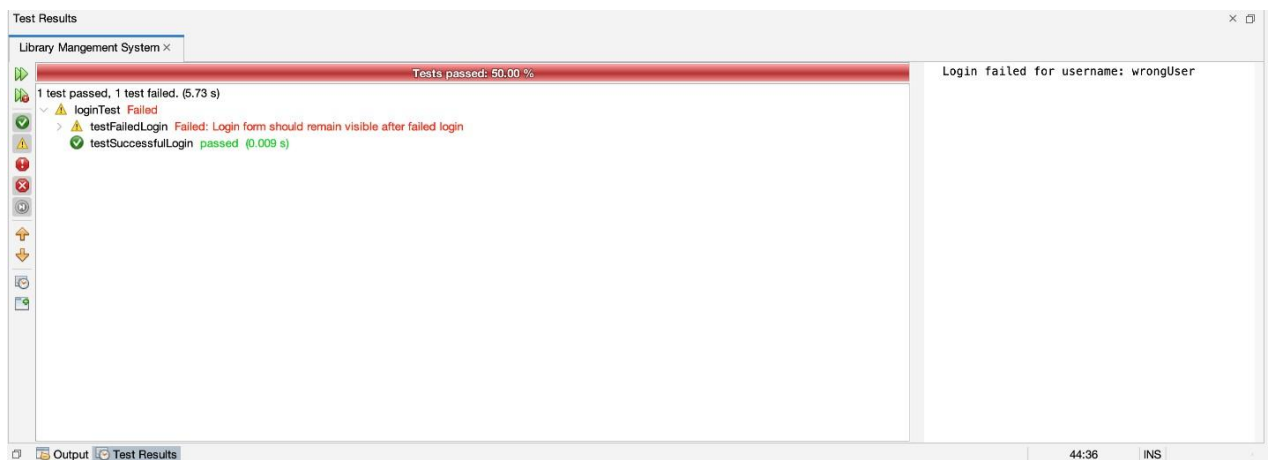


Return Book test



Statistic Test

Here are the screenshots for Failed tests in Unit Testing



Login Test

3. Acceptance Testing

| Test Case ID | Description | Expected Result | Actual Result | Pass/Fail | Comments |
|---------------------|---|--|--|------------------|--------------------------|
| UAT-01 | Acceptance test for admin registration and profile navigation | Admin is successfully registered and navigated to profile page | Admin successfully registered and redirected | Pass | |
| UAT-02 | Acceptance test for member registration | Member is registered and profile is accessible | Member successfully registered | Fail | Issue with member access |
| UAT-03 | Acceptance test for adding a new book by admin | Book is successfully added and displayed in the book list | Book successfully added | Pass | |
| UAT-04 | Acceptance test for borrowing a book as a member | Book is successfully borrowed and displayed in profile | Book borrowed successfully | Pass | |

4. System Testing

| Test Case ID | Description | Expected Result | Actual Result | Pass/Fail | Comments |
|---------------------|---|--|-----------------------------------|------------------|-----------------------------|
| ST-01 | Verify successful member registration with valid inputs | Member is registered successfully, and a confirmation message is shown | Member registered successfully | Pass | |
| ST-02 | Verify error handling for missing mandatory fields | Error message indicating the mandatory field must be filled | Error message displayed correctly | Pass | |
| ST-03 | Verify the ability to edit member profile details | | Profile updated successfully | Pass | |
| ST-04 | Verify the ability to delete a member profile | Profile is deleted, and the member can no longer log in | Profile not deleted | Fail | Issue with profile deletion |
| ST-05 | Verify successful addition of a new book with valid details | Book is added successfully, and a confirmation message is shown | Book added successfully | Pass | |

Bugs/Issues

| Bug ID | Test Case ID | Issue Description | Severity | Status | Remarks |
|--------|--------------|--|----------|--------|---------------------|
| BUG-01 | UT-06 | Logout process not handled properly | Medium | Open | Under investigation |
| BUG-03 | UAT-02 | Member registration access issue after successful registration | High | Open | Under investigation |
| BUG-04 | ST-04 | Member profile not deleted after issuing delete command | High | Open | Under investigation |

Attachments

- **Automation test scripts**
 - <https://github.com/Hominiee/Library-Management-System-Testing>

Conclusion

There are several important issues affecting the main functions of the application. Fixing these high-priority bugs should be our top focus to restore the critical features. After these issues are resolved, thorough testing will be done to check security, performance, and overall functionality. This will ensure the application runs smoothly and meets the required quality standards. Regular testing and monitoring will help keep the system stable going forward.