Library Management System

Test Execution Report

IS5113: Software Quality Assurance

Group 21

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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

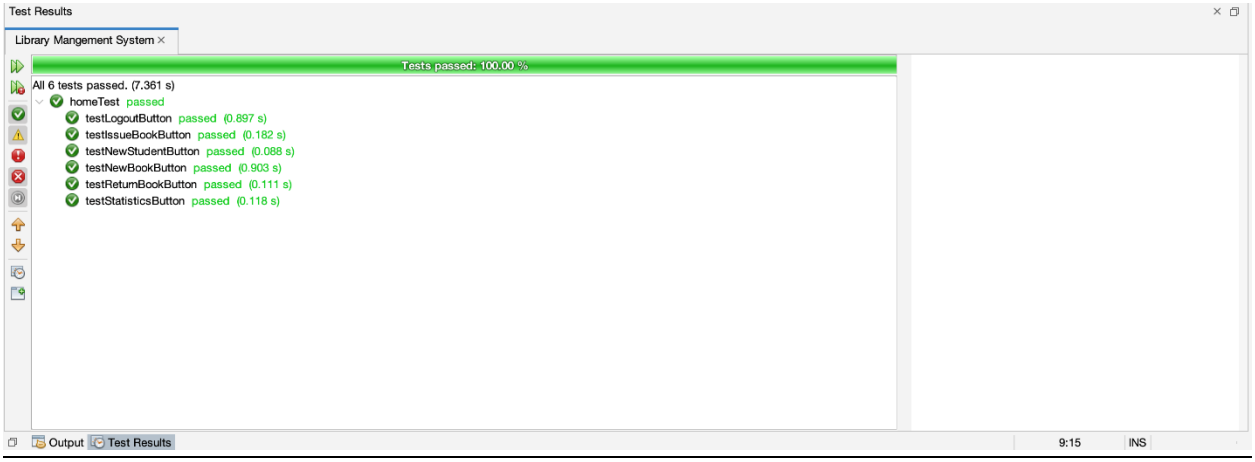
Test Case ID	Description	Expected Result	Actual Result	Pass/Fail	Comments
UT-01	Test member registration and validation	Member registered successfully with confirmation	Member registered successfully	Pass	
UT-02	Test registration with invalid email format	Error message displayed for invalid email	Error 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

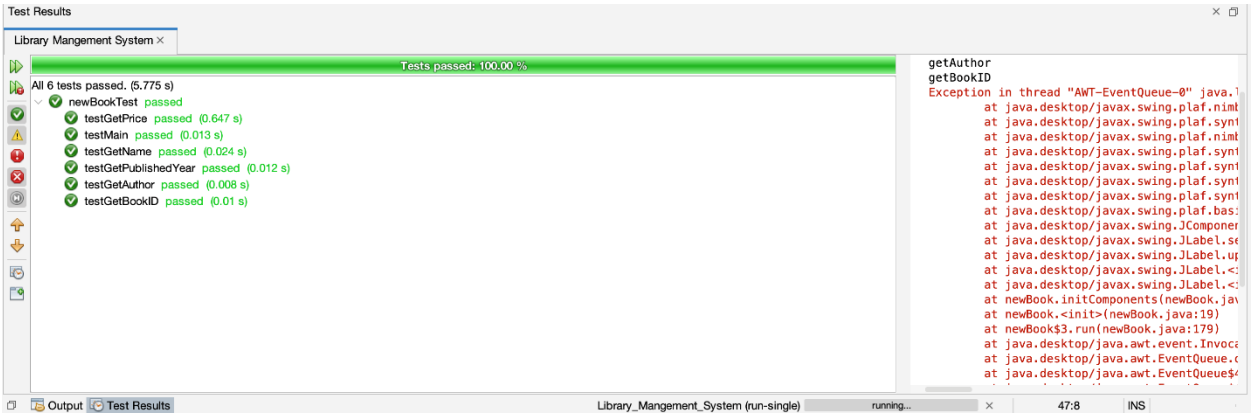
Test Case ID	Description	Expected Result	Actual Result	Pass/Fail	Comments
UA-01	Test admin registration and profile navigation	Admin is registered and navigated to the profile page	Admin successfully registered	Pass	
UA-02	Test invalid admin registration	Error message displayed for invalid email	Error 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	

UA-06	Test editing admin profile information	Profile is successfully updated	Admin profile updated successfully	Pass	
UA-07	Test deleting admin profile	Admin profile is successfully deleted	Profile successfully deleted	Pass	
UA-08	Test logging out as an admin	Admin is logged out and redirected to login page	Admin successfully logged out	Pass	

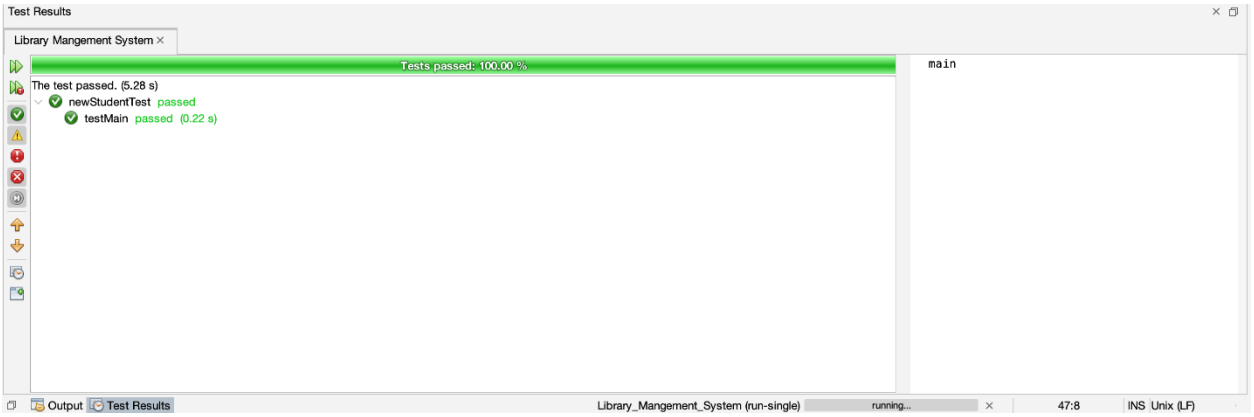
Here are the screenshots for Passed tests in Unit Testing



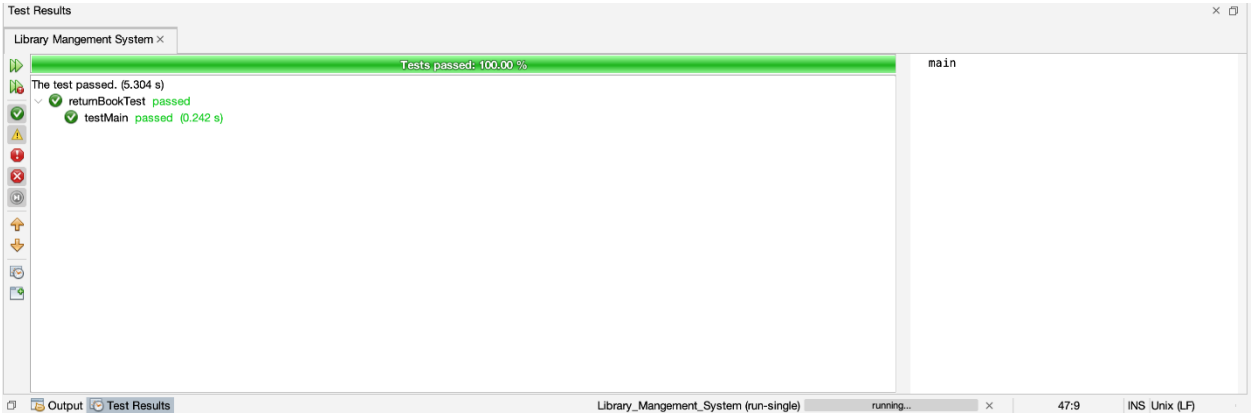
Home Test



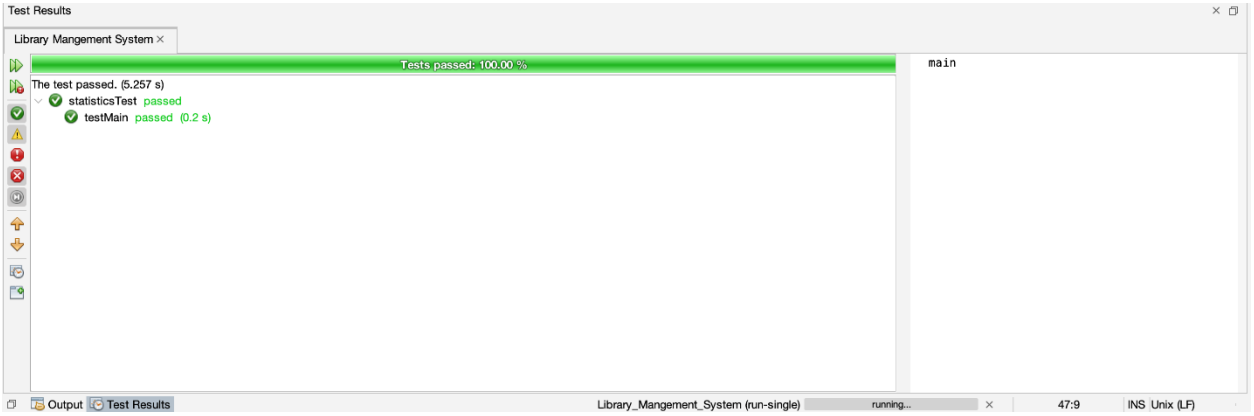
New Book Test



New Student Test

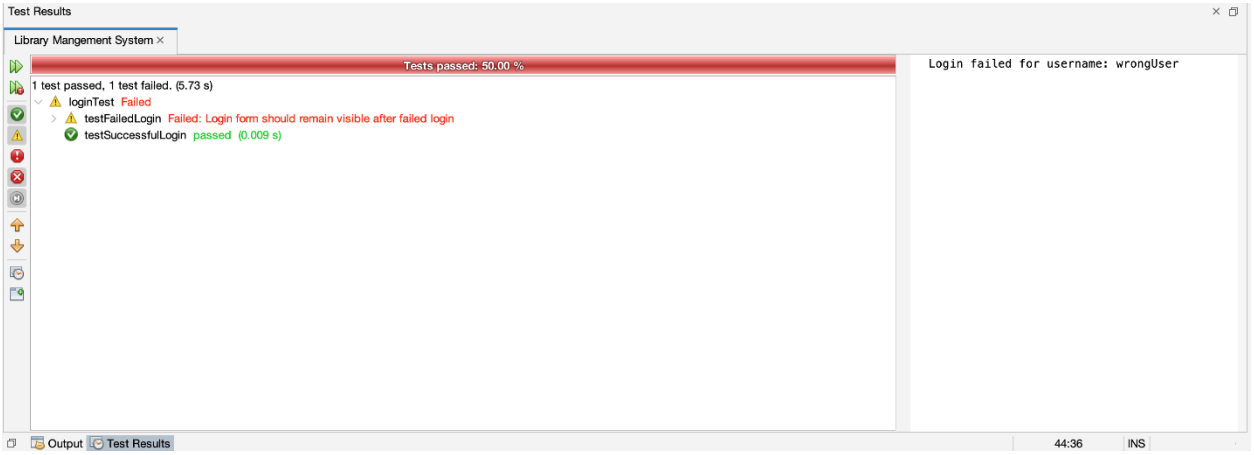


Return Book test



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/anudz27/Library_m_system/tree/main/Library%20Mangement%20System/test

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.