

SOFTWARE ENGINEERING LAB VIII

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REG. NO – 201900307

ROLL NO – 52

SEC – B

Perform unit testing, integration testing and system testing for library management system and online banking system.

Objective

- To understand unit testing, integration testing and system testing
- To create test cases for the library management system and online banking system.

Unit Testing

A unit test is a way of testing a unit - the smallest piece of code that can be logically isolated in a system. In most programming languages, that is a function, a subroutine, a method or property.

Integration Testing

Integration testing is the process of testing the interface between two software units or module. It's focusses on determining the correctness of the interface. The purpose of the integration testing is to expose faults in the interaction between integrated units.

System Testing

System Testing is a black box testing technique performed to evaluate the complete system the system's compliance against specified requirements. In System testing, the functionalities of the system are tested from an end-to-end perspective.

Test Cases

1. Library Management System

a. Login

Serial No	Test Case	Excepted Result	Test Result
1	Enter valid username and password and click on login button	Software should display main window	Pass
2	Enter invalid username or password or both	Software should not display main window	Pass

b. User Account

Serial No	Test Case	Excepted Result	Test Result
1	On clicking ADD button	User provides all fields with proper data, if any Error occurs then it gives proper message otherwise adds record to the database.	Pass
2	On clicking DELETE button	This deletes the details of student by using registration number.	Pass
3	On clicking UPDATE button	Modified records are updated in database by clicking UPDATE button.	Pass
5	On clicking CLEAR button	Clears all fields.	Pass
6	On clicking EXIT button	Exit the current account detail form.	Pass

c. Book Entry

Serial No	Test Case	Excepted Result	Test Result
1	On clicking ADD button	User provides all fields with proper data, if any Error occurs then it gives proper message otherwise adds record to the database.	Pass
2	On clicking DELETE button	This deletes the details of book using book id.	Pass
3	On clicking UPDATE button	Modified records are Updated in database.	Pass
4	On clicking SEARCH button	Displays the details of book for entered book id, otherwise gives proper error message.	Pass

5	On clicking CLEAR button	Clears all fields.	Pass
6	On clicking EXIT button	Exit the current book details form.	Pass
7	On clicking NEXT button	Display the next form.	Pass

d. Book Issue

Serial No	Test Case	Excepted Result	Test Result
1	On clicking ADD button	User provides all fields with proper data, if the book id is already issued then it will be giving proper message/prompt.	Pass
2	On clicking DELETE Button	This deletes the details of book by using register number.	Pass
3	On clicking UPDATE Button	Modified records are updated in database by clicking UPDATE button.	Pass
4	On clicking SEARCH Button	Displays the Details of issued book, otherwise gives proper error message.	Pass
5	On clicking CLEAR Button	Clears all fields.	Pass
6	On clicking EXIT button	Exit the current book details form.	Pass
7	On clicking NEXT button	Display the next form.	Pass

2. Online Banking System

a. Login

Serial No	Test Case	Excepted Result	Test Result
1	Enter valid account number and password and click on login button	Software should display main window.	Pass
2	Enter invalid account number or password or both	Software should not display main window and prompt response message.	Pass

b. User Account

Serial No	Test Case	Excepted Result	Test Result
1	On the click of ADD button	User provides all fields with proper data, if error occurs then it gives proper message otherwise send data to admin for approval.	Pass
2	On the click of DELETE button	This sends request to the database for deletion of account.	Pass
3	On the click of UPDATE button	Modified records are updated in database by clicking UPDATE button.	Pass
5	On the click of CLEAR button	Clears all fields.	Pass
6	On the click of EXIT button	Exit the current user account detail view.	Pass

c. Funds Transfer

Serial No	Test Case	Excepted Result	Test Result
1	On the click of TRANSFER button	User provides all fields with proper data, if any error occurs then it gives proper message otherwise initiate the transaction.	Pass
2	On the click of CANCEL button	Cancels the transaction and takes the user to the pervious page.	Pass
3	On the Click of CLEAR button	Clears all fields.	Pass
4	On the Click of EXIT button	Exit the transaction page and takes the user to home page.	Pass

d. Balance Enquiry

Serial No	Test Case	Excepted Result	Test Result
1	On the click of BALANCE ENQUIRY button	Displays the current balance of the account.	Pass
2	On the click of PAST TRANSACTIONS button	Displays the past transaction in chronological order.	Pass
3	On the click of EXIT button	Exits and takes the user to the home page.	Pass

e. Statement Generation

Serial No	Test Case	Excepted Result	Test Result
1	On the click of GENERATE STATEMENT button	Statement is generated and displayed on the screen.	Pass
2	On the click of PRINT STATEMENT button	Prints the generated statement.	Pass
3	On the click of EXIT button	Exits and takes the user to the home page.	Pass