SLIIT UNI
THE KNOWLEDGE UNIVERSITY

Faculty of Computing

Year 2 Semester 1 (2025)

SE2030 - Software Engineering   Lab Sheet 06

Lab Sheet 06: Software Testing

Lab Duration: 2 Hours
Objective: : In this lab, you will learn how to design test cases from a given scenario.

Practice Activity

Write test cases (at least eight) based on the given scenarios. Ensure that the test cases follow the following test case format.

Test Case ID	Test Title	Description	Preconditions	Test Steps	Test Data	Expected Output	Acutal Output	Status

(a) **Scenario: Online Banking Fund Transfer**

A bank provides an online banking system where customers can transfer money between their own accounts and to third-party accounts. The fund transfer feature includes the following conditions:

- The user must be logged in to access the fund transfer feature.
- The user must select the source account and destination account.
- The user must enter the transfer amount.
- The system validates that the user has sufficient balance.
- If the transfer is successful, a confirmation message is displayed.
- The user receives a transaction confirmation email/SMS.
- If the user enters an invalid amount (negative value, zero, or exceeding balance), the system should show an appropriate error message.
- Transfers above a certain limit (LKR 400,000) require additional OTP verification.
- Transfers to new third-party accounts require prior approval (adding a beneficiary).
- The system should log all transactions into the bank's audit trail

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Group Project Task and Submission

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1. Form your pre-assigned 6-member groups.

2. Use the same project topic assigned to you in the previous lab.

3. Design test cases for your project, covering all major functions and users.

4. Each member must prepare at least 10 test cases for their assigned function using the test case format covered in the lab session.

5. Compile a Group Report including:

   (a) Group ID, Topic Name, and Group Members

   (b) Individual Test Cases (mention member name and registration number)

   (c) Submit your report via GitHub before the deadline.
   File Name Format: BatchNumber_GroupID_Testcases.pdf

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Submission Checklist

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- Group Details

- Test case document (one per member)

- Clear and structured report format

- File uploaded to GitHub with correct naming format

(b) Scenario: Airline Ticket Booking System (Self-Study Question)

An international airline offers an online ticket booking system that allows customers to search for flights, book tickets, make payments, and receive electronic tickets via email. The system includes various features and constraints:

- Users can search for available flights by entering departure and destination cities, travel date, and number of passengers.

- The system displays available flights with details such as airline, departure time, duration, price, and seat availability.

- Users can choose flight classes (Economy, Business, First Class) based on availability and price.

- Users must log in or register before proceeding with booking.

- Users must enter passenger details (name, passport number, date of birth, nationality, etc.).

- The system verifies that the entered passport number matches the correct format for the selected country.

- The user selects a payment method (Credit/Debit Card, PayPal, or Travel Points).

- If payment is successful, the user receives an e-ticket via email with a unique PNR (Passenger Name Record).

- If payment fails, the system allows the user to retry payment or cancel the booking.

- Users can cancel or reschedule flights under specific conditions (within 24 hours for a full refund).