TEST PLAN FOR

<< LSET Online Banking Mobile App >>

ChangeLog

Version	Change Date	By	Description
version number	Date of Change	Name of person who made changes	Description of the changes made
1.0	11/03/2023		

Introduction

This document presents a detailed test plan for the online banking application developed by LSET. The app is designed to offer users a secure and convenient way to access their financial accounts. With this app, users can perform various transactions such as fund transfers, bill payments, and account management.

1.1 Scope

By defining the scopes of testing activities in our test plan, we aim to ensure thorough coverage of all critical functionalities and aspects of the online banking application, thereby delivering a high-quality and reliable product to our customers.

1.1.1 In Scope

The Scope of testing encompasses all functional and non-functional aspects of the online banking app, including:

- User authentication and authorisation
- Account management functionalities (e.g. balance inquiry, transaction history)
- Fund transfer mechanisms (e.g. intra-bank transfers, inter-bank transfers)
- Bill payment services
- Security features (e.g. encryption, secure login)
- Compatibility across multiple devices and platforms
- Performance under various load conditions
- Compliance with regulatory standards and banking regulations
- Update/change personal details.

1.1.2 Out of Scope

Out of scope list will be;

1. Third-party Services Integration Testing:

   Testing of third-party services such as payment gateways, external APIs, or financial institutions' systems, unless explicitly specified in the project scope.
2. Hardware Testing:
   Testing of physical devices such as card readers, ATMs, or point-of-sale (POS) terminals that are not directly part of the online banking application.
3. Network Infrastructure Testing:
   Testing of network infrastructure components, including routers, switches, firewalls, or load balancers, unless they directly impact the performance or security of the online banking application.

4. Legacy System Integration Testing:
   Testing of legacy systems or outdated technologies that are being replaced or phased out as part of the online banking application's modernization efforts.
5. User Training and Documentation:
   Development of user training materials or documentation for the online banking application, as this falls under the domain of user support and training rather than testing activities.
6. Legal or Contractual Compliance Testing:

   Ensuring compliance with legal or contractual obligations related to customer agreements, privacy policies, or terms of service, as this is typically managed by legal and compliance teams rather than testing.
7. Business Continuity and Disaster Recovery Testing:
   Testing of business continuity and disaster recovery plans or procedures for the online banking application, as this is often a separate area of focus outside of regular testing activities.
8. Performance Testing of External Systems:
   Performance testing of external systems or services that are not under the control of the project team, such as internet service providers or cloud hosting providers.
9. User Acceptance Testing Execution:
   Execution of user acceptance testing (UAT) activities by end-users or business stakeholders, as this is typically performed independently of the project team and is outside the scope of the test plan.
10. Functional Testing of Non-Core Features:
    Functional testing of non-core features or enhancements that are not directly related to the primary objectives of the online banking application, unless explicitly included in the project scope.

1.2 Quality Objective

The primary objective of this test plan is to ensure the reliability, functionality, security, and usability of the online banking app. By conducting thorough testing across different stages of development, we aim to identify and rectify any defects or issues that may impact the app's performance and user experience.

1.3 Roles and Responsibilities

Test Manager:

- Oversees the overall testing process for the online banking application.
- Develops the test plan, test strategy, and test schedules.
- Allocates resources, assigns tasks, and monitors progress.
- Coordinates with stakeholders and communicates testing status and results.

Test Lead:

- Assists the test manager in planning and executing testing activities.
- Manages the testing team and ensures adherence to the test plan and schedule.
- Reviews test cases, test scripts, and test reports.
- Provides guidance and support to team members.

Test (QA) Analysts/Testers:

- Develop test cases, test scenarios, and test scripts based on requirements.
- Execute test cases, record test results, and report defects.
- Conduct functional, regression, and performance testing.
- Collaborate with developers to troubleshoot and resolve issues.

Business Analysts:

- Gather and analyse the business requirements for the online banking application.
- Review test cases and validate that they align with business requirements.
- Provide input on usability and user acceptance testing.

Developers:

- Collaborate with testers to understand testing requirements and scenarios.
- Address defects reported by testers and participated in defect resolution.
- Ensure that software changes are deployed correctly for testing.

System Administrators:

- Provide test environments and ensure their availability and stability.
- Configure hardware, software, and network settings for testing purposes.
- Monitor system performance and troubleshoot environment-related issues.

Security Analysts:

- Conduct security testing to identify vulnerabilities and ensure compliance with security standards.
- Collaborate with testers to validate the effectiveness of security measures.
- Provide recommendations for improving the security posture of the application.

Compliance Officers:

- Ensure that the online banking application complies with regulatory requirements and industry standards.
- Review testing results to verify compliance with relevant regulations (e.g., PCI-DSS, GDPR).
- Guide on addressing compliance-related issues identified during testing.

Project Managers:

- Provide oversight and support for testing activities within the project.

- Monitor progress against the test plan and adjust resources as needed.
- Address any project-level issues or risks that may impact testing.

Stakeholders:

- Provide input on testing requirements, priorities, and acceptance criteria.
- Review and approve the test plan, test cases, and test reports.
- Participate in user acceptance testing and provide feedback on the application's functionality and usability.

By clearly defining roles and responsibilities, each team member knows their contribution to the testing process, promoting accountability, collaboration, and efficiency in achieving the testing objectives for LSET Online Banking Application.

Test Methodology

1.4 Overview

The test methodology selected for the project will be Agile. Agile testing methodology refers to the approach and set of practices employed for testing software within an Agile development environment which can continuously improve performance and project predictability

Test Levels

It is strictly prohibited that the product owner change the requirements in the middle of the sprint; however, the team can evolve the sprint backlog as they uncover new details about a user story. During a iteration, here is the sequence of tests:

- Unit testing, typically done by the developer, but sometimes tester also helps
- Feature acceptance testing, which may be broken into couple of activities:
    - Feature verification testing, which is often automated
    - Feature validation testing, which involves everyone and mostly done manually

The system level test may get started as soon as user stories are done. Other tests like performance, reliability, usability tests may also run in parallel to the system tests. Acceptance testing may also include alpha and beta tests based on the type of the product being developed, either in iteration or at the end of the release. Certain regulatory testing also may be executed to satisfy the audit compliance rules.

Bug Triage

The frequency of the Software Bug Triage meeting is on each sprint. The goal of the triage is to

- To define the type of resolution for each bug
- To prioritize bugs and determine a schedule for all “To Be Fixed Bugs’.

Suspension Criteria and Resumption Requirements

Suspension criteria define the criteria to be used to suspend all or part of the testing procedure. LSET Online Banking Mobile App suspension criteria are

- lack the availability of external dependent components during execution;
- a defect is detected which may restrict the testing process to proceed further

The testing activities are resumed when the dependent components are made available, or the defect is successfully resolved.

Test Completeness

Upon complettion of the testing effort, a Test summary Report will be completed and distributed for formal signoff by Project Stakeholders. A formal rewiev meeting will be initiated to walkthrough test results on date 25 –May-2024. The outcome of the meeting will depend upon number of open severity 1 and severuty2 defects raised during the testing.

Entry Criteria

The following entry criteria must be met prior to the commencement of Project Testing:

- LSET Online Banking App buils is complete and deployed to the test environment
- The TEST environment required for testing LSET Online Banking App functionality has been set up
- System access for all testers has been established.
- Appropriate test data is available in the TEST environment

Exit/Acceptance Criteria

Testing will not be deemed complete unless all of the following exit criteria are met for each test level:

- All test scripts planned for testing executed
- All retest of defects comleted
- No Severity 1 and Severity 2 defects are open
- All Severiniry 3 defects agreed by business stakeholders
- All business workarounds for the severinity 4 defects accepted

Test Deliverables

Planning

- Test Plan: Defines overall testing approach, scope, resources, and schedule. * Consider mentioning Agile practices if applicable (e.g., iterative testing throughout sprints).
- Test Strategy: Details specific testing methodologies (e.g., black-box testing). | This document might not be explicitly mentioned in the prompt, but outlining the chosen methodologies is crucial for planning.

Requirements Analysis

- Requirement Traceability Matrix (RTM): Maps requirements to corresponding test cases.
- Test Cases: Detailed documents outlining functionalities, steps, expected results, and pass/fail criteria. Test cases should cover all of the requirements from RTM document. Tests will be a mix of automated and manual testing.

Development

- Test Scripts: Automated test cases execution.
- Testing Metrics: The quantitative measures used to estimate the progress, quality, productivity and health of the software testing process. The goal of software testing metrics is to improve the efficiency and effectiveness in the software testing process and to help make better decisions for further testing process by providing reliable data about the testing process.

Test Execution

- Bug Reports: Documented issues with steps to reproduce, severity, and expected behavior.

Additional Considerations

- Agile Methodology: Continuous updates in Jira and GitHub to update team/customer on how things are going.
- Customer Sign Off: This document formally seeks approval from the customer, signifying their acceptance of the testing results.

  It typically includes:
  - A summary of the completed testing scope.
  - A breakdown of test results (passed/failed cases, identified defects).
  - Space for the customer's signature to acknowledge their sign-off.

Resource & Environment Needs

Testing Tools

Make a list of Tools like

- Requirements Tracking Tool
- Bug Tracking Tool
- Automation Tools

Required to test the project

Test Environment

It mentions the minimum **hardware** requirements that will be used to test the Application.

Following **software's** are required in addition to client-specific software.

- Windows 8 and above
- Office 2013 and above
- MS Exchange, etc.

Terms/Acronyms

Make a mention of any terms or acronyms used in the project

TERM/ACRONYM	DEFINITION
API	Application Program Interface
AUT	Application Under Test
RTM	Requirement Traceability Matrix
SRS	Software Requirements Specifications
PO	Project Owner
BA	Business Analyst
BDD	Behavior Driven Development - A development methodology focusing on user stories and expected behavior
Bug	An error or defect in the software
Defect	A deviation from the expected behavior or functionality.
Pass/Fail Criteria	Conditions that define a successful or failed test.
Regression Testing	Re-running previously executed tests to ensure functionality hasn't regressed due to changes.
Test Case	A set of steps designed to test a specific functionality or feature.

TERM/ACRONYM	DEFINITION
Test Coverage	The percentage of functionalities or requirements covered by test cases.
Test Data	Data used for testing the application.
Test Environment	The hardware, software, and network configuration used for testing.
Test Strategy	The overall approach to testing the application.
Test Suite	A collection of related test cases.
Black-Box Testing	Testing the application without knowledge of its internal workings.
White-Box Testing	Testing the application with knowledge of its internal workings.
Performance Testing	Evaluating the application's response time and resource usage under load.