Test Plan – Parabank Online Banking System

**Project: Parabank QA Capstone Project**

**Author: Fanen Iorver**

**Date: 29/09/2025**

# 1. Introduction

This Test Plan defines the testing strategy, scope, and approach for the Parabank Online Banking System, focusing on three core modules:

* User Registration & Login
* Fund Transfer
* Account Services (Overview & Activity)

The goal is to verify that all functional requirements (R1–R12) and non-functional requirements (NFR1–NFR5) are met, defects are identified, and the system behaves as expected across supported environments.

# 2. Scope of Testing

**In Scope:**

* Functional testing of modules: User Registration, Login, Fund Transfer, Account Services.
* Validation of R1–R12 and key non-functional requirements (NFR1–NFR5) from the PRD.
* Manual testing including positive, negative, boundary, and edge cases.
* Browser compatibility testing on Chrome, Firefox, Edge, and Safari.

**Out of Scope:**

* Performance, load, and stress testing beyond basic response checks.
* Integration with external payment systems.
* Mobile app testing.
* Non-English localization.

# 3. Objectives

* Ensure that all functional requirements (R1–R12) and key NFRs are validated.
* Detect and document defects with defined severity and priority.
* Deliver a complete set of test artifacts: Test Cases, Defect Reports, RTM, and Test Summary Report.
* Provide sign-off criteria for project closure.

# 4. Test Approach

**Testing Type:** Manual functional testing

**Techniques:**

* Positive Testing: Verify expected valid behavior.
* Negative Testing: Validate system error handling.
* Boundary Value Analysis: e.g., transfer amount = 0, maximum allowed values.
* Exploratory Testing: Identify unexpected behaviors and usability issues.
* Usability & Accessibility Checks: Verify compliance with R12 and NFR5.

# 5. Test Deliverables

* Test Plan: This document.
* Test Cases: ≥30 test cases mapped to R1–R12.
* Test Execution Results: Pass/Fail with screenshots for failed tests.
* Defect Reports: 3–5 documented issues with steps, actual vs. expected results, severity, and priority.
* Requirement Traceability Matrix (RTM): Mapping R1–R12 to test cases to ensure 100% coverage.
* Test Summary Report: Results, statistics, defect summary, and sign-off.

# 6. Test Environment

* Application Under Test (AUT): Parabank Demo (<https://parabank.parasoft.com/parabank/index.htm>)
* Browsers: Chrome, Firefox, Edge, Safari
* Test Data:
* Valid and invalid user registration details
* Accounts with sufficient and insufficient funds
* Transaction data for account activity testing

# 7. Roles & Responsibilities

* Test Lead: Coordinate testing activities, review deliverables, manage defects.
* Test Engineers: Design and execute test cases, log defects, maintain RTM.
* Documentation Lead: Maintain test artifacts and prepare Test Summary Report.
* All Team Members: Peer review, execution, and knowledge sharing.

# 8. Entry & Exit Criteria

**Entry Criteria:**

* PRD (R1–R12) finalized and available.
* Test cases designed and reviewed.
* Test environment ready (Parabank demo site accessible).

**Exit Criteria:**

* 100% test case execution completed.
* All critical/high severity defects resolved or deferred with approval.
* RTM demonstrates 100% requirement coverage.
* Test Summary Report prepared and signed off.

# 9. Risks & Mitigation

# Test environment downtime → Delays execution → Schedule buffer time, retry later.

# Data inconsistency in demo app → False failures → Use controlled test data, rerun tests.

# Browser incompatibility issues → Functionality differences → Test on all supported browsers.

# Limited time before deadline → Missed execution → Prioritize high-risk test cases.

# 10. Schedule & Timeline

* Requirement Analysis: Week 1
* Test Case Design & Review: Week 1
* Test Execution: Week 1– 2
* Defect Reporting & Retest: Week 2
* RTM & Summary Report: Week 2–3
* Final Submission: Week 3

# 11. Tools

* Documentation: MS Excel, Google Docs
* Defect Tracking: JIRA / Excel
* Communication: WhatsApp/Slack, Email

# 12. Approval

Sign-Off Required By:

QA Team Lead

Instructor / Project Supervisor