# **Requirement Analysis Document**

Project: Parabank QA Capstone Project

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Date: 29/09/2025

## **1. Introduction**

This document defines and analyzes the requirements for the Parabank QA Capstone Project. The project simulates real-world QA activities, covering requirement gathering, test planning, test case design, test execution, defect reporting, and closure.  
  
The goal is to ensure that the Parabank application (a demo online banking system) is tested thoroughly for functionality, reliability, usability, and security.

## **2. Project Scope**

The scope of this project includes:

- Requirement analysis of core banking features.  
- Writing test cases to cover functional and non-functional requirements.  
- Executing test cases manually and reporting results.  
- Tracking requirements to ensure full coverage using a Traceability Matrix.  
- Logging and tracking defects.  
- Producing a final test summary report for sign-off.

Out of scope:

- Performance testing.  
- Automation scripting.  
- API-level testing.

## **3. Functional Requirements**

### **3.1 User Registration**

* FR1: The system shall allow a new user to register with mandatory details (first name, last name, address, city, state, zip code, phone, SSN, username, password, confirm password).
* FR2: The system shall validate that all required fields are completed.
* FR3: The system shall display an error if the username is already taken.
* FR4: Upon successful registration, the system shall create a new user account and redirect the user to the account overview page.

### **3.2 User Login**

* FR5: The system shall allow a registered user to log in using valid username and password.
* FR6: The system shall display an error message for invalid credentials.
* FR7: The system shall allow a user to log out successfully.

### **3.3 Account Services**

* FR8: The system shall allow a logged-in user to view account balances.
* FR9: The system shall allow funds transfer between accounts.
* FR10: The system shall display a transaction confirmation message.
* FR11: The system shall maintain a transaction history for each account.

### **3.4 Customer Services**

* FR12: The system shall allow customers to request services (e.g., open new account, request loan, contact support).
* FR13: The system shall display request confirmation messages.

## **4. Non-Functional Requirements**

* NFR1: The system should respond to user actions within 3 seconds under normal conditions.
* NFR2: The system should support multiple concurrent users without session conflicts.
* NFR3: Passwords must be masked during input.
* NFR4: The system should provide error messages in clear, understandable language.
* NFR5: The system should be accessible via major browsers (Chrome, Firefox, Edge).

## **5. Assumptions and Dependencies**

* Users must have internet access to use the application.
* The Parabank demo environment must be available and stable.
* Test data will be created during registration.
* No integration with real banking or payment gateways is involved.

## **6. Acceptance Criteria**

* All functional requirements (FR1–FR13) must be testable with defined test cases.
* 100% requirement coverage must be demonstrated in the Traceability Matrix.

## **7. Deliverables Linked to This Document**

* Test Plan – strategy and approach.
* Test Cases – detailed steps for execution.
* Defect Report – documented bugs.
* Traceability Matrix – mapping requirements to test cases.
* Test Summary Report – results and closure.