Testing Document and Specification
Test Plan

Fantastic 4
CS 451, SS 2024

Singleton, Brayden   Tysdal, Hunter   Leeson, Aidan

Nguyen, Joseph

Introduction

This document outlines the test plan for the Commerce Bank website. As outlined in the project Requirements Document, this system needs to provide a medium for users of Commerce Bank to be able to successfully plan and budget. This system will provide the ability to successfully log-in after registration along with view and enter transactions to be able to view their budgeting. They will also be provided a settings and loan calculator.

Terminology

Throughout this document the terms user, student, provider, system, site and username/password will be used frequently therefore, formal definitions will be given.

System- the database that supports the backend of the website

User- people affiliated with Commerce Bank who will exclusively use only the front-end of the website

Website- the front-end website (main page)

Username/Password- unique identifiers that authenticate and validates a user

Items Tested

Items that will be tested during the testing phase as laid out by the Macro Project Plan will be but are not limited to:

- Ability for an individual to register and login successfully via a username and password
  Test Case: 4.1.4.1, 4.1.4.2

- Ability for a user to add transactions and view transactions via confirming email address
  Test Case: 4.2.1 4.2.2

- Ability for a user to successfully calculate a total amount from a loan calculator
  Test Case: 4.3.1

- Ability for users to update information in the settings page
  Test Case: 4.4.1

- Ability for users to successfully logout of the website
  Test Case: 4.5.1

Items Not Tested

There are features that will not be included in the current testing procedure. This does not mean that these features will not be implemented, but that they have not been implemented and are not available for testing. Those features include but are not limited to:

- Displaying graphs based on budgeting transactions

- Querying the Database

Approach

The overall method to this testing procedure is manual system testing. With the design of our website being fairly linear, we can do multiple test cases at the same time. These test cases include the registration and successful login of a user. And another test case than can be done at the same time is viewing newly added transactions. This allows for more proficient use of time and allows us to make sure that those two separate test cases correlate and interact correctly with each other.
The feature that allows for a loan to be calculated correctly should be simple since it is all math based. The display of the grand total of how much a loan will cost should properly display and if it doesn't then the math is incorrect.

Manual system testing will continue throughout the second and third iteration of the project. For each iteration, both old and newly implemented features will be tested. Adding new features or functionality can sometimes interfere with the functionality of old features and to ensure product/project success, all features implemented should function as intended throughout the life of the software.

Item Pass/Fail Criteria

The minimum requirements for this software system were laid out in the Requirements Document defining what the requirements of the software considered project success.

Implemented features that meet the requirements as determined by the customer, meaning the feature does what the user wants it to do with very little difficulty, passes the testing procedure. Difficulty, as used here, is determined by user comprehension and user ability to use the feature with little to no training.

Features that contain major defects will fail the testing procedure and will be documented via an incident report and turned over to the developer for investigation and revision.

Test Deliverables

In addition to the Test Plan, other test deliverables include the Test Specification which outlines the specific test cases and expected results of each test, and Test reports which is comprised of Incidents, Defects and Changes.

Testing Tasks

The following list the testing deliverables and the activities required to produce the deliverable.

Deliverables	Activities
Test Plan	- Analyze Requirements for System Features - Determine Testable/Non-Testable Features - Develop Approach/Method for testing - Determine Task and Estimate Efforts - Develop Schedule for Testing
Test Specifications	- Analyze Requirements - Define Test Cases for Testable Features as Outlined by the Test Plan
Test reports	- Implement Test Cases as Outlined by the Test Specifications - Document Incidents and Defects - Determine Severity of Incidents and Defects - Determine Changes that Need to be Made to System - Document and Submit Change Request to Developer