Simultaneous Exchange

Master Test Plan

Instruction

This document is used to define the details of the master test plan. Once the test plan is outlined, the document must be reviewed and approved by the lead technical representative on the project as well as the lead business representative on the project. If anything related to the test plan changes during the execution and testing phase of the project, this document should be updated and re-approved by both parties.

Test Scope

This test plan will test all the requirements for the release of v1.0 of the scenario-based learning tool "Simultaneous Exchange". This plan will cover unit, integration, validation and regression testing all of which will be performed by the development team for this project.

Security testing will be performed by an external vendor, Safe Systems, to ensure an independent evaluation of security requirements. We expect that this will be a simple procedure since the system is not intended to interact with any sensitive user data, necessitate internet connection nor require access to local permanent storage beyond initial installation.

Beyond security testing, we will not be conducting further system testing (stress, performance and recovery) since these are not explicitly required on the Software Requirements Specification document. Only one user is expected to use a local copy of the offline system at a time; the input is limited by the scope of each module, and the system has minimal graphical and computational demands regardless of operating system. Furthermore, performance and recovery attributes are implicitly tested during the other forms of testing.

Test Features

BR #	***Feature***	***Responsible party or groups***
1	Start Scenario	Developers
2	Progress Time	Developers
3	Request Financial Instrument Information	Developers
4	Split Timeline	Developers
5	Merge Timelines	Developers
6	Take Loan	Developers
7	Pay Off Loan	Developers
8	Buy Stocks	Developers
9	Sell Stocks	Developers

Test Inputs/Outputs

Inputs	***Outputs***
System Requirement Specifications	Test Results
Use Case Diagram	Error logs
Use Case Scenarios	

Test Strategy

Test Type	**Description**	**Comment**
Unit Test	This type tests all individual units including functions, local data structures and all independent paths	
Integration Test	This type tests units and components as combined entities	
Validation Test	This type tests all functionalities of a system from the end-user perspective to make sure all requirements specified in the SRS are satisfied	
Regression Test	This type tests the entire system to ensure that any untouched functionality did not get adversely impacted by the project-related work.	*These tests will be included in the other test types after corrections have been made to the code*

Test Environment

1. Tools	**Description**	**Version**
1.1 WinRunner	Automated script generation tool for GUI interactions. Note: Windows only, will use 1.3 Manual Input for Mac GUI testing.	9.2
1.2 Unix Shell Scripts	Scripting language.	In-house
1.3 Manual input	Manual entry of data onto screen or GUI.	N/A
1.4 Python Libraries		
1.4.1 pytest	Python testing tool to automate functional testing.	7.1.2
1.4.2 invoke	Manage shell-oriented subprocesses. This non-essential, supporting library will be used to automatically run shell commands for testing.	1.7.0
2. Systems		

2.1 Custom Ordi laptop	Windows10	
2.2 2019 13inch Macbook Pro	MacOS Monterey v12.2	
2.3 2018 15inch Macbook Pro	MacOS Monterey v12.0.1	
3. Database		
N/A	System does not require testing database	

Test Roles and Responsibilities

Resource	***Role***	***Responsibility***
Peter Mahhov	Project Manager, Tester	● Provides technical direction. ● Acquires testing resources. ● Assigns tasks to testing resources ● Executes test cases, logs defects, and documents test results.
Lachlan Pham	Test Designer, Test Manager	● Documents test plan. ● Identifies, documents and prioritizes test cases. ● Evaluates effectiveness of test effort. ● Ensures the test environment and assets are installed, managed and maintained. ● Communicates test results to management.
Mathilde Simoni	Test Designer, Tester	● Documents test plan. ● Identifies, documents and prioritizes test cases. ● Evaluates effectiveness of test effort. ● Executes test cases, logs defects, and documents test results.

Test Milestones

Task	***Milestone Date***
Setup Test Environment	08/04/22
Complete Unit Testing	29/04/22
Complete Integration Testing	06/05/22
Complete Validation Testing	06/05/22
Complete Regression Testing	06/05/22

Document Approval

The signatures below acknowledge that the test plan outlined above is complete and accurate. Upon receiving written approval, the project team will proceed to the testing phase.

Approved by: Printed name	Approved by: Title	Approved By: Signature/Date
Peter Mahhov	Project manager, Developer	P.M, 04/05/22
Lachlan Pham	Developer	L.P, 04/05/22
Mathilde Simoni	Developer	M.S, 04/05/22

Document Tracking

Date	Action Taken	By Whom
04/05/22	Creation of the Test Plan	Lachlan Pham, Mathilde Simoni