Software Testing Specification

for

MamoBooks

Version <1.0>

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MamoCoin

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Revision History

Name	Date	Reason For Changes	Version
Brian Deguzis	2/27/2018	Document Created	0.1
Brian Deguzis	3/1//2018	Introduction, Features to be Tested Sections Added	0.2
Brian Deguzis	4/16/2018	Approach, Item Pass/Fail Criteria Sections Added	0.3
Brian Deguzis	4/17/2018	Features Not to be Tested, Test Deliverables, Test Tasks, Responsibilities, Staffing and Training Needs, Schedule, and Approval Sections Added	0.4
Brian Deguzis	4/22/2018	Suspension Criteria and Resumption Requirements Section Added	0.5
Brian Deguzis	4/22/2018	Document Finalized	1.0

Introduction

The purpose of this document is to provide a written description of the testing plan for the MamoBooks accounting software. The details in this document are geared towards the software development team in order to properly guide and enforce IEEE testing procedures.

Test Items

The structure of the testing procedures will be divided into modules and user groups. Each module will be tested separately and with the system as a whole after the completion of each sprint. Testing of the modules will be broken into the following sections:

- Chart of Accounts
    - General User
    - Manager
- Journalizing
    - General User
    - Manager
- Posting
    - Manager
- Logs
    - General User
    - Manager
    - Administrator
- Financial Statements
    - General User
    - Manager
- Dashboard
    - General User
    - Manager
    - Administrator

Features To Be Tested

The following is a listing of the features to be tested during along with the estimated associated risk.

Feature Name	Risk
Viewing the Chart of Accounts	Low
Creating an account	High
Adding an account to the Chart of Accounts	Med
Viewing the General Journal	Low
Journalizing	High
Viewing journalized transactions	Low
Posting transactions to accounts	Med
Viewing account ledgers	Low
Creating trial balances	Med
Viewing trial balances	Low
Creating income statements	Med
Viewing income statements	Low
Creating balance sheets	Med
Viewing balance sheets	Low
Creating cash flow statements	Med
Viewing cash flow statements	Low
Creating ratio analysis	Med
Viewing ratio analysis	Low

Features Not To Be Tested

The following describes all features in the MamoBooks accounting system that will not be tested during the course of development.
- Unit testing for any component that is not being developed by the MamoCoin team
- Integration testing for any group of modules consisting solely of external components. Note that this does include modules from environments in which they do not normally operate. (Ex: two external modules from different sources).

The rationale for these plans is that we assume that all external components have been commercially tested for the environments in which they normally operate.

Approach

The following will describe the overall test strategy for the MamoBooks accounting system. No special tools or training will be required to follow this plan. The configuration management of the testing procedures will be broken up into the user groups: Administrator, Manager, and General User. On the hardware side, the server and all communication with it will be tested. On the software side, all modules making up the MamoBooks website will be tested (more details on these modules can be found in Section III of this document). After each module is implemented, there will be full regression and integration testing to insure all modules interact properly, and that the software functions properly as a whole. Regression testing will be done based on severity of defects detected, but all modules will also be covered during the tests regardless. Items in the software which cannot be tested or do not make sense will be noted in this test document, and critical items that match this description will be given special attention after testing. Since this system will be developed in sprints, where each sprint will correspond to the development of a singular module, both unit testing and integration testing should be used to insure that not only each module works, but also that they work together as a system. Unit testing and integration testing for the current and all previous modules will be completed by the due date of that module.

Item Pass/Fail Criteria

The following will describe the conditions for when each module will be successfully tested.

Severity Level	Condition
Low	75% of all defects found in this level have been resolved.

	All test cases completed.
Med	85% of all defects found in this level have been resolved.
	All test cases completed.
High	100% of all defects found in this level have been resolved.
	All test cases completed.

Suspension Criteria and Resumption Requirements

The following describes the criteria for which testing may be paused and resumed.

Suspension Criteria	Resumption Criteria
The server for hosting the MamoBooks website becomes unavailable.	The server for hosting the MamoBooks website becomes available again.
A defect is introduced that prohibits further testing.	The defect is resolved.
The current module's deadline is passed without finishing testing, and testing on the next module must begin.	Once required testing of the current module is complete, unfinished testing of the previous modules can resume.
A holiday causes both development and testing of the software to halt for the duration of the break.	The holiday is over.
The test plan is modified and the tests are deemed unnecessary or less important than other tests.	The test cases are evaluated as necessary.

Test Deliverables

The following will be included as test deliverables:

- The Software Testing Specification
- The Test Logs
- The Test Summary Report

Test Tasks

The following tables detail the task breakdown for each test deliverable and their respective estimated completion dates.

Software Testing Specification

Task	Estimated Completion Date
Introduction	3/1/2018
Test Items	3/8/2018
Features to be Tested	3/8/2018
Features Not to be Tested	3/8/2018
Approach	4/1/2018
Item Pass/Fail Criteria	4/1/2018
Suspension Criteria and Resumption Requirements	4/1/2018
Test Deliverables	3/8/2018
Test Tasks	4/15/2018
Responsibilities	4/15/2018
Staffing and Training Needs	4/15/2018
Schedule	3/8/2018
Risks and Contingencies	4/15/2018
Approvals	3/8/2018

The Test Logs

Task	Estimated Completion Date

Chart of Accounts Module Test Logs	2/8/2018
Journalizing Module Test Logs	2/22/2018
Posting Module Test Logs	3/8/2018
Financial Statements Module Test Logs	3/22/2018
Dashboard Module Test Logs	4/5/2018

The Test Summary Report

Task	Estimated Completion Date
Chart of Accounts Module Test Logs	2/8/2018
Journalizing Module Test Logs	2/22/2018
Posting Module Test Logs	3/8/2018
Financial Statements Module Test Logs	3/22/2018
Dashboard Module Test Logs	4/5/2018

Responsibilities

The following describes the responsibilities for each of testers of the MamoBooks development team.

Tester	Responsibility
Brian Deguzis	Creating the Software Testing Specification and Testing Plan. Managing and guiding all testers and collecting/organizing their test deliverables.
Benny Villegas	Unit Testing for the following modules: - Chart of Accounts - Journalizing - Posting - Financial Statements - Dashboard

Eddie Matos	Integration testing for all modules in the system after each sprint.

Staffing and Training Needs

All testers of MamoBooks will be members of the development team and are expected to fully understand the functionality of the software, and as such will not require any additional training.

Schedule

Refer to section 5.3 of the Software Project Management Plan document.

Risks and Contingencies

Risk	Probability	Impact	Mitigant
Lack of access to server that hosts MamoBooks	Med	High	Since we are not in direct control of our server, we will make sure we have sufficient development time to insure that any outages will not set us back in an significant way.
Lack of communication from testers to developers	Low	Med	Weekly meetings and constant contact through our Discord server means all team members are easily reachable, and that everyone should be informed at any given time.
Addition of new requirements mid development	High	Med	Requirements will be prioritized in the requirements specification document. Any additional requirements that the client adds during development will be discussed during our weekly performance meetings, where the corresponding priority will be decided on.

Lack of domain knowledge	Med	High	Weekly team meetings with the client will be held in order to learn more about the domain and modules we will be developing.
Insufficient time to test any given module	High	Med	The testing/development schedule will be divided such that each module receives its own block of time in which it is the focus of the development team.

Approvals

After each sprint in the development of MamoBooks, approval of testing procedures will be handled as follows:
- Initial
    - After the testing of each module is initially complete, the testing results will be presented to the Test Leader for approval before the next stage of approval.
- Final
    - After being approved by the test leader, a test summary will be prepared and presented to the key stakeholders for the system.