Library Management System
Test Plan

Version 1.0

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1. Introduction

The library management system is a web application which is the foundation of a library system designed for libraries and bookstores. The application is implemented in a modern way using a Single Page Application (SPA) architecture, which means that no reload of the page is needed. The application would provide basic set of features to add, update, delete, and search for books. This document is a test plan that test the system and its functions and detect if any faults or errors exist.

2. Objectives

This test plan for the library management system support the following objectives:

- Define the activities required to prepare for and conduct System and User Acceptance testing.
- Test to all responsible parties of the System.
- Test the features of the application and if it meets the client requirements.

3. Scope

The library management system should allow the user to access the book database that are saved in a XML file and show them as a list. It also provides functions for:

- Add a book.
- Update the Title / Author/ Publish Date / Genre / Price / Description of a book.
- Delete a book.
- View a list of the books in the database.
- View book details.
- Search for a book.

4. Environment Requirement

Hardware: Dual-Core or above machines needed.

Software: Microsoft Windows XP installed or above operating system needed.

5. Test Strategy

The test strategy consists of a series of different tests that will fully test the library management system. The primary purpose of these tests is to uncover the systems limitations and measure its full capabilities. White Box Testing is the technique that is used in this test. In white-box testing an internal perspective of the system, as well as programming skills, are used to design test cases. The tester chooses inputs to exercise paths through the code and determine the appropriate outputs. A list of the various planned tests and a brief explanation follows below.

5.1 Static Test

Static testing is a software testing method that involves examination of the program's code and its associated documentation but does not require the program be executed.

5.2 Dynamic Test

Dynamic testing is a software testing method that involves testing methods and the interaction with the program while it runs.

5.2.1 Unit Testing

Test smallest testable parts of the system, are individually and independently scrutinized for proper operation to detect the defects in the methods and the classes.

5.2.1.1 Methods to be Tested

- Add Book
- Update book details
- Delete book
- View book details
- View a list of the books in the database

- Search for a book

5.2.2 System and Integration Testing

Integration testing is the phase in which individual modules of the system are combined and tested as a group.

System integration testing (SIT) is a high-level software testing process in which testers verify that all related systems maintain data integrity and can operate in coordination with other systems in the same environment.

6. Test Schedule

Unit Testing	03/03/17
System and Integration Testing	03/03/17

7. Dependencies

7.1 Personnel Dependencies

The test team requires experience testers to develop, perform and validate tests.

7.2 Software Dependencies

The source code must be unit tested and provided within the scheduled time outlined in the Project Schedule.

7.3 Hardware Dependencies

Internet browser to access the localhost page, PC (with specified hardware / software). Any downtime will affect the test schedule.

7.4 Database

Database (The XML file) should also be made available to the testers for use during testing.

8. Test Documentation

The following documentation will be available at the end of the test phase:

- Test Plan
- Test Cases

9. Work Breakdown Structure