**Lou Geh Library System – Test Plan**

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1. **Introduction**

The test plan is designed to define the scope, approach, resources, and schedule for all testing activities of the Lou Geh Library System.

The plan identifies the items to be tested, features to be tested, the types of testing to be performed, the teams involved in testing, and the resources and schedule required to complete the testing.

* 1. **Scope** 
     1. **In Scope**

The following are the features and functions of the Lou Geh Library System that should be tested.

|  |  |  |
| --- | --- | --- |
| **Module Name** | **Applicable Roles** | **Description** |
| Book Entry | Admin | **Admin**: An admin can add new books into the system |
| Book Update | Admin | **Admin**: An admin can update book details and information |
| Remove Book | Admin | **Admin**: An admin can remove books from the system |
| Borrow Records | Admin  User | **Admin**: can view all borrowed book records  **User**: A user can only view his records history |
| Borrow Records Update | Admin | **Admin**: An admin can update borrowed book records |
| Remove Borrow Records | Admin | **Admin:** An admin can remove records |
| New Book Copy | Admin | **Admin:** An admin can add copies of book into the system |
| Remove Book Copy | Admin | **Admin:** An admin can remove book copies from the system |
| Publisher Entry | Admin | **Admin:** An admin can add new publishers |
| Publisher Update | Admin | **Admin:** An admin can update publishers’ information |
| Remove Publisher | Admin | **Admin:** An admin can remove publishers on the system |
| Category Entry | Admin | **Admin:** An admin can add new book categories |
| Category Update | Admin | **Admin:** An admin can update a book category |
| Remove Category | Admin | **Admin:** An admin can remove a book category |
| New Account Registration | Admin | Currently System Provides 2 types of accounts.   * Reader * Admin   A reader can only access their own borrowed records.  **Admin:** An Admin can add new account and designate the account types. |
| Update User | Admin | **Admin:** An admin can update user details |
| Remove User | Admin | **Admin:** An admin can remove users from the system |

* + 1. **Out of Scope**

The following are the features and aspects that are not being tested because the test plan focuses on the software functionalities of the system.

* 1. **Quality Objective**

The test objectives are to verify the functionality of the Lou Geh Library System. The project should focus on testing core operations such as book entry, borrow records, new account registrations, etc., to ensure that these operations work normally when deployed in a real-world environment.

* 1. **Roles and Responsibilities**

To minimize project costs, the use of in-house team members as testers is recommended.

|  |  |  |
| --- | --- | --- |
| **No.** | **Member** | **Task** |
| **1.** | Applications Lead | Manage the whole project  Define project directions  Acquire appropriate resources |
| **2.** | Tester Administrator | Manages and Instructs tester on test approach |
| **3.** | Tester | Executes test, Log results, Reports the bugs and issues |
| **4.** | Test Developer | Fixes flagged issues in order of priority |
| **5.** | QA Members | Take charge in quality assurance  Check to confirm whether testing process meets the specified requirements |

1. **Test Methodology**
   1. **Overview**
   2. **Test Levels**

In the Lou Geh Library System, two types of testing should be conducted.

* **Integration** Testing: Individual software modules are tested as a group to ensure smooth and normal operations between modules.
* **System** Testing: This should be conducted to ensure overall operability of the system across various devices and different web browsers applications.
  1. **Bug Flagging and Fix**
  2. **Suspension Criteria & Resumption Requirements**
* If the tester members report that more than 45% of test cases have failed, testing should be suspended until the development team addresses and fixes all the failed cases.
  1. **Suspension Criteria & Resumption Requirements**
* **Operability** and **run rate** are mandatory to be at **100%** unless there are major bug and issues before deployment.
* **Passing rate** is **80%,** achieving pass rate is mandatory to further continue development.
  1. **Project task and estimation schedule**

|  |  |  |
| --- | --- | --- |
| **Task** | **Members** | **Estimate Effort** |
| **Create test specification** | Applications Lead | 180 man-hours |
| **Perform Test Execution** | Tester/ Test Administrator | 80 man-hours |
| **Test Report** | Tester | 15 man-hours |
| **Test Delivery** |  | 25 man-hours |
| **Total** |  | 300 man-hours |

1. **Test Deliverables**

**Before Testing**

* Test plans Document
* Test cases Documents
* Test design Specifications

**During Testing**

* Test Tools
* Test Data
* Test Trace-Ability Matrix
* Error logs and Execution Logs

**After the testing cycles is over**

* Test Results/Reports
* Defect Report
* Installation/Test Procedure Guidelines
* Release Notes

1. **Resource & Environment**
   1. **Testing Tools**

|  |  |  |
| --- | --- | --- |
| **No.** | **Resources** | **Descriptions** |
| **1.** | Server | Needs a Database server to store system data  Web server |
| **2.** | Test tool | Develop a test to auto generate and record test results |
| **3.** | Network | Setup a wireless network with speed at least 5 Mb/s |
| **4.** | Computer | At least 3 computer that runs Windows 10 or Latest, 4GB Ram, at least i3 or equivalent. |