**Test Plan**

**Project Title:** Learning Management System (LMS) for Happy Land School  
**Date:** Sept. 20, 2024

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the testing approach, strategy, and execution plan for the Learning Management System (LMS) implementation at Happy Land School. The goal is to ensure that the LMS meets the functional requirements and is free of major defects before going live.

**1.2 Project Overview**

The LMS project will streamline online learning, course management, grade tracking, and communication between students, teachers, and parents. This test plan will cover all core functionalities and ensure that the system is working as intended.

**2. Scope**

**2.1 In-Scope**

* Course Management functionality (assignment submission, grading)
* User Management (teacher, student, admin roles)
* Communication tools (messaging between users)
* Gradebook and report generation
* System performance under peak usage

**2.2 Out-of-Scope**

* Mobile application-specific testing (the current scope covers the desktop version)
* External system integrations beyond existing school software

**3. Testing Strategy**

**3.1 Test Objectives**

The main objective is to validate that the LMS functions according to the defined requirements. Tasks will include testing workflows for course management, user management, and the messaging system.

**3.2 Test Assumptions**

* The system will be tested in a controlled environment.
* Testing will require sample data that simulates actual student and teacher interactions.
* All features will have been developed and unit tested before functional testing begins.

**3.3 Data Approach**

Test data will be created in the test environment to simulate real users and scenarios for functional, user acceptance, and regression testing.

**3.4 Levels of Testing**

**Unit Testing**

* ***Description****: Test individual components of the system to ensure each works as intended.*
* ***Responsible Parties****: Development team*

Participants:

|  |  |  |
| --- | --- | --- |
| **Tester’s Name** | **Department/ Area** | **Role** |
| [TBA] | IT Department (if applicable) | Test Manager |
| [TBA] | Development Team | Test Lead |
| [TBA] | QA Team | Test Analyst |

**Functional Testing**

* ***Description****: Verify that the LMS meets the functional specifications, including course management, user roles, and messaging features.*
* ***Responsible Parties****: QA Team*

Participants:

|  |  |  |
| --- | --- | --- |
| **Tester’s Name** | **Department/ Area** | **Role** |
| [TBA] | IT Department (if applicable) | Test Manager |
| [TBA] | Development Team | Test Lead |
| [TBA] | QA Team | Test Analyst |

**User Acceptance Testing**

* ***Description****: Validate that the system meets user requirements and can be used by teachers, students, and administrators.*
* ***Responsible Parties****: User Groups (Teachers, Students, Admins)*

Participants:

|  |  |  |
| --- | --- | --- |
| **Tester’s Name** | **Department/ Area** | **Role** |
| [TBA] | School Administration | Test Manager |
| [TBA] | Teachers/Staff | Test Lead/ Test Analyst |

**Regression Testing**

* ***Description****: Ensure that new changes or fixes do not negatively affect existing functionality.*
* ***Responsible Parties****: QA Team*

Participants:

|  |  |  |
| --- | --- | --- |
| **Tester’s Name** | **Department/ Area** | **Role** |
| [TBA] | IT Department (if applicable) | Test Manager |
| [TBA] | QA Team | Test Lead |
| [TBA] | QA Team | Test Analyst |

**Execution Strategy**

**Entry Criteria**

* *Test environment is set up and accessible.*
* *All test data is available and prepared.*
* *Code has been successfully merged into the test environment.*
* *Development team has completed unit testing.*
* *Test scripts are completed, reviewed, and approved.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Criteria** | **Test Team** | **Technical Team** | **Notes** |
| *Test environment(s) is available* | Yes | Yes |  |
| *Test data is available* | Yes | Yes |  |
| *Code has been merged successfully* | Yes | Yes |  |
| *Development has completed unit testing* | Yes | Yes |  |
| *Test scripts are completed, reviewed and approved by the Project Team* | Yes | Yes |  |

**Exit criteria**

* *100% of test scripts executed.*
* *90% pass rate for test scripts.*
* *No open critical or high-severity defects.*
* *All defects documented in the tracker.*
* *Test environment cleanup completed.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Exit Criteria** | **Test Team** | **Technical Team** | **Notes** |
| *100% Test Scripts executed* | Yes | Yes |  |
| *90% pass rate of Test Scripts* | Yes | Yes |  |
| *No open Critical and High severity defects* | Yes | Yes |  |
| *Defects logged and tracked* | Yes | Yes |  |

**Validation and Defect Management**

* ***Test cases and scenarios will be validated against expected results.***
* ***All defects will be logged in a defect tracker and categorized by severity.***

Defects found during the Testing should be categorized as below:

|  |  |
| --- | --- |
| **Severity** | **Impact** |
| *1 (Critical)* | * *Functionality is blocked and no testing can proceed* * *Application/program/feature is unusable in the current state* |
| *2 (High)* | * *Functionality is not usable and there is no workaround but testing can proceed* |
| *3 (Medium)* | * *Functionality issues but there is workaround for achieving the desired functionality* |
| *4 (Low)* | * *Unclear error message or cosmetic error which has minimum impact on product use.* |

**Environment Requirements**

**Test Environments**

* *Specify the test environment(s) requirements*
* *Specify the security requirements.*

**Significantly Impacted Division/College/Department**

|  |  |  |
| --- | --- | --- |
| **Business Area** | **Business Manager** | **Tester(s)** |
| **School IT (if applicable)** | [TBA] | [TBA] |
| **Administration** | [TBA] | [TBA] |

**Dependencies**

* *Dependencies include the availability of test data, completion of the development phase, and availability of testing resources.*