**HKMU Student Academic Record Management System**

**Testing Plan Report**

**Prepared by:**

1. **Chu Sik Hin (13372042)**
2. **Chiang Chung Ting (13000180)**
3. **Wong Pak Cheong (13079556)**
4. **Chan Kin Tsun (13395240)**
5. **Sin Wai Nok (13214598)**

**Table of Contents**

1. **Introduction**
   1. **Scope**
      1. **In Scope**
      2. **Out of Scope**
   2. **Quality Objective**
   3. **Roles and Responsibilities**
2. **Test Methodology**
   1. **Test Levels**
   2. **Suspension Criteria and Resumption Requirements**
   3. **Test Completeness**
3. **Validation Testing**
4. **Defect Testing**
5. **Test Deliverables**
6. **Resource & Environment Needs**
   1. **Testing Tools**
   2. **Test Environment**

**1 Introduction**

The Test Plan is designed to prescribe the scope of all testing activities of the project Student Academic Record Management System.

The plan identifies the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing and the resources to complete testing with the plan.

#### **1.1 Scope**

#### **1.1.1 In Scope**

All the feature of Student Academic Record Management System which were defined in software requirement specs need to be tested

|  |  |  |
| --- | --- | --- |
| **Module Name** | **Applicable Roles** | **Description** |
| Profile | Teacher  Student | Teacher: The teacher can view and modify their profile.  Student: Students can view and modify their profile. |
| Academic Record | Student | Student: View a student's academic performance and calculate a student's cGPA |
| Course Schedule | Student | Student: View schedule |
| Study Materials | Teacher  Student | Teacher: The teacher can add and delete the class notes in the system.  Student: The student can view the class notes in the system. |
| Submit Assignment | Student | Student: The student can submit the assignment in the system. |
| Couse Enrollment | Student | Student: The student can use the system to sign up for specific courses or extracurricular activities. |
| Discussion Area | Student | Student: The student can access online discussion forums to exchange ideas. |
| Contact | Student | Student: The student can send a message to find a teacher or admin. |
| Apply Scholarship | Student | Student: The student can use the system to apply for scholarships. |
| Grading System | Teacher | Teacher: The teachers can access a system to rate student's scores. |
| Student Inbox | Teacher | Teacher: The teacher can use the system to reply to student messages. |
| Course Manage | Teacher | Teacher: The teachers can use the system to manage their own courses. |
| Grading Assignment | Teacher | Teacher: The Teacher can use the system to grade the student's assignment. |
| Online Class | Teacher | Teacher: Teachers can start live online teaching through the system. |
| Edit Profile | Admin | Admin: A admin can edit, add, and delete system accounts. |
| Curriculum Planning | Admin | Admin: A admin can edit, add, and delete course names, course numbers and course credits. |
| Liaison | Admin | Admin: A admin can use the system to make calls to other school departments. |
| Generate Report | Admin | Admin: A admin should be able to track student performance and generate grade analysis and reports. |

#### **1.1.2 Out of Scope**

These features are not tested because they are not included in the software requirement specs

* User Interfaces
* Hardware Interfaces
* Software Interfaces
* Database logical
* Communications Interfaces
* Website Security and Performance

#### **1.2 Quality Objective**

The test objectives are to verify the Functionality of Management System, the project should focus on testing system such as Account Management, Grade Management, and Reporting…etc. to guarantee all these operations can work normally in bona fide business environment.

#### **1.3 Roles and Responsibilities**

The project should use team member as the tester

|  |  |  |
| --- | --- | --- |
| **No.** | **Member** | **Tasks** |
| **1.** | Test Admin | Builds up and ensures test environment and assets are managed and maintained  Support Tester to use the test environment for test execution |
| **2.** | Test Teacher | Test Teachers use the teacher page for test execution |
| **3.** | Test Student | Test Students use the student page for test execution |

### **2 Test Methodology**

#### **2.1 Test Levels**

* Integration Testing: Conducted on any bugs or issues arising from coding errors between modules.
* System Testing: Conducted on a complete system to evaluate the system’s compliance with its specified requirements.

#### **2.2 Suspension Criteria and Resumption Requirements**

If the team members report that 40% of test cases failed, suspend testing until the development team fixes all the failed cases.

#### **2.3 Test Completeness**

* Specifies the criteria that denote a successful completion of a test phase
* The run rate is mandatory to be 100% unless an apparent reason is given.
* Pass rate is 80%, achieving the pass rate is mandatory

**3 Validation Testing**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID /** **Description** | **Input /** **Expected Output** | **Tester Name/** **Date Executed** | **Actual Result** |
| Check the username on the login screen to ensure incorrect logins are not allowed | Correct password used:  OK:   * correct username   ERROR:   * no text * text > max characters | * Joey Sin * 20/11/2023 | PASS:   * correct username   FAIL:   * text > max characters |
| Checks the password on the login screen ensures that incorrect logins are not allowed | Correct username is entered:  OK:   * correct password   ERROR:   * no text * text > max characters | * Joey Sin * 20/11/2023 | PASS:   * correct password   FAIL:   * text > max characters |
| Check the input on the profile screen to make sure error input is not allowed | Correct profile is entered:  OK:   * correct input   ERROR:   * Error text * text > max characters * text with special characters | * Joey Sin * 20/11/2023 | PASS:   * correct input   FAIL:   * text > max characters * text with special characters |
| Check the academic record | OK:   * correct output   ERROR:   * No text | * Joey Sin * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the course schedule | OK:   * correct output   ERROR:   * No text | * Joey Sin * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the study materials | OK:   * correct output   ERROR:   * No text | * Kevin Chan * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the course manage to make sure error input is not allowed | OK:   * correct input   ERROR:   * error text | * Kevin Chan * 20/11/2023 | PASS:   * correct input   FAIL:   * text > max characters * text with special characters |
| Check the study materials | OK:   * correct output   ERROR:   * No text | * Kevin * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the submit assignment | OK:   * correct submit   ERROR:   * No text | * Joey Sin * 20/11/2023 | PASS:   * correct submit   FAIL:   * No text |
| Check the discussion area to make sure error input is not allowed | OK:   * correct input   ERROR:   * error text | * Joey Sin * 20/11/2023 | PASS:   * correct input   FAIL:   * No text |
| Check the contact to make sure error input is not allowed | OK:   * correct input   ERROR:   * error text | * Joey Sin * 20/11/2023 | PASS:   * correct input   FAIL:   * No text |
| Check the apply scholarship | OK:   * correct output   ERROR:   * No text | * Kevin * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the course manage | OK:   * correct output   ERROR:   * No text | * Kevin * 20/11/2023 | PASS:   * correct output   FAIL:   * No text |
| Check the grading assignment to make sure error correct is not allowed | OK:   * correct input   ERROR:   * No text | * Kevin * 20/11/2023 | PASS:   * correct input   FAIL:   * No text |
| Check the online class to make sure error add is not allowed | OK:   * correct add   ERROR:   * No text | * Joey Sin * 20/11/2023 | PASS:   * correct add   FAIL:   * No text |

**4 Defect Testing**

|  |  |  |
| --- | --- | --- |
| **Category** | **Label** | **Value** |
| wrong password format in profile page | Password number | 123456 |
| wrong Sex format in profile page | Sex | F |
| wrong birthday format in profile page | Birthday | 1975-01-012 |
| wrong email address format in profile page | Email address | admin |
| wrong phone number format in profile page | Phone number | 666666661 |
| Wrong time format in course manage page | Time | 8:00 – 8:00 |
| wrong email address format in contact page | Email address | admin |

#### **5 Test Deliverables**

Test deliverables are provided as below

**Before testing phase**

* Test plans document
* Test cases documents
* Test Design specifications

**During the testing**

* Test Data
* Test UI

**After the testing cycles is over**

* Test results reports
* [Defect Report](https://www.guru99.com/defect-management-process.html)
* Installation and Testing Program Guide

### **6 Resource & Environment Needs**

#### **6.1 Testing Tools**

|  |  |  |
| --- | --- | --- |
| **No** | **Resources** | **Descriptions** |
| **1.** | Server | Need a Database server which install MySQL server |
| **2.** | Network | Setup a LAN Gigabit and 1 internet line with the speed at least 5 Mb/s |
| **3.** | Computer | At least 1 computer run Windows 7, Ram 2GB, CPU 3.4GHZ |

### **6.2 Test Environment**

It mentions the minimum hardware and software requirements that will be used to test the Application.

The following software is required in addition to client-specific software.

* Windows 7 and above
* MacOS 10.10 and above