Developing a Test Plan for Student and Faculty Management System for AIUB

1. TEST PLAN IDENTIFIER:

AIUB-SFMV1.0

2. REFERENCES:

 None Identified.

3. INTRODUCTION:

This is the MTP for Student and faculty management System for AIUB. This test plan will address only those items and elements that are related to the students and faculties' information, both directly and indirectly affected elements will be addressed. The primary focus of this plan is to ensure that **System** will keep all the records of the students and faculties.

3.1 System will keep all the records of the students such as their

1. First Name

2. Last Name

3. Student ID

4. Gender

5. Address

6. Department

7. Phone number

8. Email

3.2 System also store the information of the faculties such as their

1. First Name

2. Last Name

3. Faculty ID

4. Gender

5. Address

6. Department

7. Phone number

8. Email

 9. Research Interests

 10. Degrees obtained and the corresponding University details.

4. TEST ITEMS:

1. Student must have valid id.

2. Student shall be able to add courses.

3. Student can see their previous curriculum record.

4. Student can register for the next semester

5. Student can choose courses.

6. Advisor or Faculty can permit a student to add or remove a course.

5. SOFTWARE RISK ISSUES:

Several parts of the project are not within the control but have direct impacts on the process and must be checked as well.

 A. Interruption of third party software.

 B. Errors while doing login.

 C. Backup and Recovery of the EDI transmission files, local databases and restart of the translation process, must be carefully checked.

 D. The ability to restart the application in the middle of the process is a critical factor to application reliability. This is especially true in the case of the transmission files as once the data is pulled from the mailbox it is no longer available there and must be protected locally.

 E. Database security and access must be defined and verified.

 F. Enough electricity 24/7.

6. FEATURES TO BE TESTED:

Student:

1. Password that is provided should be matched

2. Validate the student's information

2.1 Check Student Id and Password

2.2 Student cannot try wrong password more than three times, if he try more than three times his or her account will be forfeited.

3. A user can change password

4. Student shall select the Academic year and the Semester to register

5. Student shall be able to add courses to registration

6. Student shall be able to display the previous semester courses, results and Faculty

7. Student can remove a course after he/she has added this to system

8. Student can view all the courses and course schedule he/she has added for the upcoming semester

Admin:

1. Can login to the system

2. Add, Update or Remove course or courses.

3. Can open a new section or close a section

4. Can make a course list, edit a course list, and adjust number of credits per course list

7. FEATURES NOT TO BE TESTED:

1. Networks
2. Hardware
3. Student's Information (Name, Address, Contact number etc.)

8. APPROACH:

The testing for a robust web-based system for student and faculty management will consist of Unit, System/Integration (combined) and Acceptance test levels.

1. There will be at least one full time independent test person for system/integration testing.
2. [However, with the budget constraints and timeline established number of testers involved in different kinds of testing may vary.]
3. Unit Testing will be done by the developer and will be approved by the development team leader.
4. Test case list, sample output, data printouts, and defect information) must be provided by the programmer to the team leader before unit testing will be accepted and passed on to the test person.
5. All unit test information will also be provided to the test person.
6. System/Integration Testing will be performed by the test manager and development team leader with assistance from the individual developers as required.

7. No specific test tools are available for this project.
8. The system will enter in the System/Integration test after all critical defects have been corrected.
9. Acceptance Testing will be performed by the actual end users with the assistance of the test manager and development team leader.
10. The acceptance test will be done for a period of 20 days after completion of the System/Integration test process.

Test Tools

1. Microsoft Excel will be used to write test cases.

2. JIRA Testing & QA Tool will be used to manage test cases and reporting.

Meetings

The test team will meet once everyone week to evaluate progress to date and to identify errors trends and problems as early as possible. The test team leader will meet with development and the project manager once everyone week as well. Additional meetings can be called as required for emergency situations.

9.Item Pass/Fail criteria

If the software is accepted by the users and they are satisfied with the performance then he software will pass otherwise it will fail and have to check the software again.

10. Suspension criteria & resumption Requirements:

In general, testing will only stop if application becomes unavailable. If testing is suspended due to the application becoming unavailable, testing will be resumed onve access to the application is restablished.

11. Test Deliverables:

Test Deliverables are the artefacts which are given to the stakeholders of software project during the software development lifecycle. There are different test deliverables at every phase of the software development lifecycle.

1.Test Plan

2. Test Environment

3. Test Cases

4. Test Data Sets

5. Test Strategy

6. Test Defect Reports

7. Test Results

8. Test Evaluation Report

9. Execution log files

10. Summary

12. Remaining test tasks :

1. Acceptance test plan.

2.Verify execution log file.

3. Define turn over procedure.

4. Verify summary reports.

5. Verify defect logs.

13. Environmental needs:

1. Hardware is needed to execute our system properly.

2. Database is needed to execute this system.

14. Staff and Training Needs

14.1. Staff Needs

During the 1st quarter of the project the project/test manager can play the role of a full time test engineer with a part time test engineer to assist with the review and initial planning of the project. After the initial build has been done, the validation and verification testing needs 2 full time tester and one of them needs to be the person connected with project from the inception as assisting tester.

14.2 Training Needs

The Test manager and Project Manager needs to collaborate with a administration personnel and train on the inner working of a course allocation flow and learn about available courses and prerequisite course needs. [Later more staff and training facilities will be added based on the earlier portion of this test plan document]

15. Responsibilities:

The project manager and test manager will participate in all test plans and documentation.

Responsibilities	Test Manager	Project Manager	Development Team	Test Team	Client
Acceptance Testing, Documentation and Execution		●	●	●	
System Testing , Documentation and Execution				●	
Integration Testing , Documentation and Execution				●	
Unit Testing, Documentation and Execution				●	
System Layout Review		●	●	●	
User Interface Review		●	●	●	●
Test Procedures and rules		●			
Data validation		●			●

16. Schedule:

This portioned will be created after the completion of other portions of the document in form of a Work back ground Structure and with a Gantt chart.

17. Planning Risks and Contingencies:

The requirement may be changes or updated. The Student user cannot edit Name and Id, but there is no provision on Gender, Email, Department or Address. To maintain correct data accusation and for administration to send messages and emails to students those needs to be only editable by some administration so that the update is recorded each time. Which requires a 3rd user type as data entry personnel. Which will result the delivery dates to be postponed. To avoid that the developer team can make the arrangements ahead. [Later more possible risks and contingency plans will be added based on the earlier portion of this test plan document]

18. Approvals:

Approval	Personnel
Documentation and Execution	Test manager then project manager
System Structure	Development Team Leader and Project Manager
Acceptance testing	Project Manager and Test Manager
Unit testing	Test Manager
Test Procedures and rules	Project manager and Test Manager
Validation of data	Administration Personnel
Final Project completion	Project Manager then Test Manager then administration personnel
User Interface Review	Test Manager then Development Team then client

19. Glossary:

Definition of some terms that are used in this test plan to avoid confusion:

AIUB	American International University - Bangladesh
OSRS	Online Student Registration System
MTP	Master Test Plan
SDLC	software development life cycle
PM	Project Manager
TM	Test Manager
IT	Information Technology
QA	Quality Assurance