Software Testing Plan

HIT Team

Version 1.0

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# Introduction

## Document purpose

This document detailed description about plan and testing implement method for Student Record Management (SRM) project. At the same time the requirement for personnel, tools and materials needed for testing is also defined here.

## Project Scope

Documents describing strategy & plan when implement testing phase in SRM project. The detailed description of test cases in each phase will be implemented in the test specification documents.

This document is used by PM, Tech leader who participated in the SRM project.

## Test Phases

### Unit Testing

* Developer will perform Unit test scripts during the development progress. Unit test case will be auto generated

### System testing

#### Functional testing

* Create 3 test case for System test is: Import student record, print, statistic
* Use cases which describes functionalities in SRS must be fully show in System test specification
* Graphic User Interface (GUI) of each screen in GUI Specification must be fully showed in System test specification.

#### Quality attribute testing

* All quality attribute of SRM will be test: usability, performance, integrity, security

|  |  |  |  |
| --- | --- | --- | --- |
| No | Quality Attribute | Exit criteria | Priority |
| 1 | Usability | Pass 80% | 1 |
| 2 | Performance | Pass 100% | 1 |
| 3 | Availabilities | Pass 100% | 3 |
| 4 | Security | Pass 100% | 2 |

## Test case priorities

|  |  |
| --- | --- |
| Priority | Describe |
| 1 | Test cases very important and can’t fail. Must fix immediately if test case fail |
| 2 | Test cases very important and can’t fail. Must fix soon if test case fail |
| 3 | Test cases not important and maybe perform or not, depend on the test plant. |
| 4 | Test cases not important and not necessary to perform, but when perform it help improve program quality |

# Schedule

Test plan for the SRM will be established and implemented for testing and System Integration testing. Training plan and make Unit testing will be specifically described in the Master Plan.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Action | | Describe | Start date | | Finish date | | Human Resource |
| Test documentation | | | | | | | |
| Test Plan | Create test plan | | | 02/06/2012 | | 10/07/2012 | Hiep Ta |
| Design Unit Test | Design Unit Test | | | 02/07/2012 | | 29/07/2012 | Huy Huynh,  Giang Nguyen |
| Design System Test | Design System Test | | | 02/07/2012 | | 29/07/2012 | Huy Huynh,  Giang Nguyen |
| Unit testing | | | | | | | |
| Unit test | Implement unit test | | | 02/07/2012 | | 22/07/2012 | Huy Huynh,  Giang Nguyen |
| Report | Report the unit test status | | | 23/07/2012 | | 25/07/2012 | Huy Huynh,  Giang Nguyen |
| System testing | | | | | | | |
| System test | Implement system test | | | 25/07/2012 | | 05/08/2012 | Huy Huynh,  Giang Nguyen |
| Report | Report the system test status | | | 02/08/2012 | | 10/08/2012 | Huy Huynh,  Giang Nguyen |

# Human resources in testing team

## Information about test team

The test team will consist of:

* Test leader: Hiep Ta
* Tester: Huy Huynh, Giang Nguyen
* Document writer: Thanh Giang, Hiep Ta

## Roles & Responsibilities

* Test leader: Ensures the overall success of the test cycles. He/she will coordinate weekly meetings and will communicate the testing status to the project team. Reports directly to the PM.
* Tester: Responsible for performing the actual system testing following test documents. Discussions with developers about bugs fix. Reports directly to the test leader
* Document writer: Responsible for developing test documents (Test plan, test cases, test report)

# Test Environment



## Hardware requirement

|  |  |  |
| --- | --- | --- |
| No. | Describe | Minimum |
| 1 | Computer | * CPU: Core 2 Duo or higher * RAM 2Gb or higher * Hard Disk space: 05 Gb free |
| 2 | Printer | * Cable * API integrate |

## Software requirement

|  |  |  |
| --- | --- | --- |
| No. | Describe | Software |
| 1 | Web Server / Application server | Visual Studio 2010  SQL server 2005 or above  MVC .NET Framework 3.0 |
| 2 | Web browser | Chrome, Firefox |

# Entrance criteria and exit criteria

## Entrance criteria

These criteria should be defined before the test began and was carried out by Test leader.

### Unit testing

* Unit Test case must be implemented fully

### System testing

* System test plan must be approved.
* System Test Cases must be ready.
* Personnel must be ready.
* Environment and tools must be available to test.

## Exit criteria

**Unit testing**

* Code reviewed (peer review, desk check)
* 100% Branch coverage
* 100% Condition coverage (which may be relaxed, depending on language)
* Any problems remaining unresolved from Unit Test been documented and explained why they are unresolved.

**System testing**

* All System Test Cases to be done.
* Some pre-defined number of defects discovered

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Function | Exit criteria | Priority | Severity | Beginning status | Ending status |
| Import Record | Pass 100% | 1 | 1 | New | Close |
| Print | Pass 100% | 2 | 3 | New | Close |
| Statistic | Pass 100% | 1 | 1 | New | Close |