QA Team “Apple”

Telerik Academy 2014

**Evaluation & Teamwork   
Modules   
Test Plan**

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**Table of contents:**

[1. INTRODUCTION](#h.v3jxom3cxf3l)

1.1. [Project Background](#h.d0qrpbiqemsr)

1.2. [Objectives](#h.4bl2w0p2953o)

1.3. [Testing Strategy](#h.y3410zoztnxj)

1.4. [Scope](#h.ghgqm8abum8r)

1.5. [Reference Material](#h.gy6mzljgn5g6)

[2. TEST ITEMS](#h.84tibbj5q7yc)

2.1. [Program Modules](#h.ivgwulmzsas3)

[3. TEATURES TO BE TESTED](#h.pnz2pi6hp70h)

[4. FEATURES NOT TO BE TESTED](#h.vvzslpvlmz3m)

5. A[PPROACH](#h.99nxl6gvkt70)

5.1. [Integration Testing](#h.sluvbfeiq9q4)

5.4. [User Interface Testing](#h.kxc0ose8u7s8)

5.7. [System Testing](#h.x06lg6e2zlga)

5.8.1. [Performance Testing](#h.ytqcrb3th79n)

5.8.2. [Load Testing](#h.i7h16jw98v0m)

5.8. [Regression Testing](#h.w7f3f9m1m7c3)

5.9. [Acceptance Testing](#h.a0zzba6dkfsc)

6. [PASS / FAIL CRITERIA](#h.19tzve57o5o9)

6.1. [Suspension Criteria](#h.44y6lii7km75)

6.2. [Resumption Criteria](#h.9c3w3b587nah)

6.3. [Approval Criteria](#h.q1bn5dowxtpk)

7. [TESTING PROCESS](#h.pmg6otbbi9rh)

7.1. [Test Deliverables](#h.3je7s7w5j25a)

7.2. [Testing Tasks](#h.so5tg2icj9n9)

7.3. [Responsibilities](#h.3mvs6eo2guvm)

7.4. [Schedule](#h.9in70wct5ygf)

8. [ENVIRONMENTAL REQUIREMENTS](#h.w8lxzyrlx7bg)

8.1. [Hardware](#h.o7ivm9ffzbje)

8.2. [Software](#h.a0uhzr3s55sq)

8.3. [Security](#h.fea2hja26vvm)

8.4. [Tools](#h.5zwpuyn7e457)

8.5. [Risks and Assumptions](#h.2e00dmng88a8)

9. [Change Management Procedures](#h.2fn2auvyaa4r)

10. [Plan Approvals](#h.cmaykdt6xiyf)

11. [Version History](#h.gxerydu3ktkc)

# **INTRODUCTION**

This document describes the procedure and expectations for testing module “Evaluation” in the student system being developed by Telerik Academy institution.

## Project Background

The existing system allows the students and administrators to evaluate homeworks, exams, teammates, etc. in courses they participate. This project is intended to provide testing for the modules “Evaluation” and “Teamwork” in the student system [test.telerikacademy.com](http://test.telerikacademy.com).

## Objectives

The objective of this test plan is to ensure a high level of confidence in the correctness and usefulness of the project deliverables.

## Testing Strategy

The strategy for testing the “Evaluation” and “Teamwork” module of the Telerik Academy Student System is a combination of automated and manual tests. The components of the system that don't involve user interaction will be tested automatically. The components involving user interaction will be tested manually by the developers/ testers.

We will use Microsoft Test Manager to design the test cases using the

## Scope

Testing will be performed at several points in the life cycle as the Telerik Student System is constructed. Testing is a very 'dependent' activity. As a result, test planning is a continuing activity performed throughout the system development life cycle. Test plans must be developed for each module of system testing.

## Reference Material

* Evaluation module requirements (EMR): <https://docs.google.com/document/d/19bZ8dV3cdyiHQioqacxgeQHqeTTlHC-5o_NBYD7Cxj4/edit?usp=sharing>

# **TEST ITEMS**

* User Interface - Manual execution of a set of test cases shall be performed on all aspects of the user interface to assure correct product operation. Test cases will cover all requirements in the EMR.
* Batch Job - The new batch job will be executed on the same data set as the old batch job and the output shall be directly compared for accuracy.

# **FEATURES TO BE TESTED**

The following is a list of the areas to be focused on during testing of the application.

* Homework Upload / Re-upload
* Homework Comments and Grading
* Homework Evaluation
* Exam Sign-up
* Exam Results / Exam Peer Review
* Teamwork Sign-up
* Teammate Grading

# **FEATURES NOT TO BE TESTED**

The following features will not be tested directly prior to delivery of the final product. The development team does not have the resources (hardware, software, and personnel) to verify these limits. The shareholders accepted this limitation and plan on verifying this functionality after delivery.

* Scalability limits
* Modules that the tested modules are dependent on

# **APPROACH**

The testing will be done manually until the site is sufficiently stable to begin developing automatic tests. The testing will cover the requirements and efficiently reduce the risk.

## Functional Testing

The objective of this test is to ensure that each element of the application meets the functional requirements of the business as outlined in the Requirements Documentation

This stage will also include **Validation Testing** - which is intensive testing of the designed front-end fields - valid, invalid and limit data input.

## User Interface Testing

The goal of UI testing is to ensure that the UI provides the user with the appropriate access and navigation through the functions of the target-of-test. In addition, UI testing ensures that the objects within the UI function as expected and conform to corporate or industry standards.

## Integration Testing

Integration tests will exercise the interaction of the Evaluation module with other modules that it depends on. The goal is to ensure that they work nicely together.

## Acceptance Testing

This test, which is planned and executed by testers, ensures that the system operates in the manner expected.Testers will provide feedback regarding changes, which must be implemented to the functionality and the UI. Feedback will be provided in the form of verbal communication at meetings and via email reports as necessary. All major changes will be documented in revised versions of the test plan.

## System Testing

The goals of system testing are to detect faults that can only be exposed by testing the entire integrated system or some major part of it.

## Performance Testing

Performance testing will be conducted manually. It will be done using black-box testing method. Testers will interact with the user interface to the system and determine whether or not the system responds in a reasonable time. Reasonable is defined as the amount of time a data entry person would expect the system to respond in. The tests will be performed on the most common used browsers (IE, Chrome, Firefox, Safari, Opera).

## Load Testing

Load testing will test the behavior of the system when an increasing number of users work with it at the same time.

5.5.3. Stress Testing

Stress testing will test system behavior when overloaded. This test is particularly important for exam uploading.

## Regression Testing

When a change is made to the system, all test cases for all components relating (directly or indirectly) to the modified component will be re-executed. The design is to execute all tests necessary to ensure no regression occurs but not to needlessly expend resources on unrelated tests.

# **PASS / FAIL CRITERIA**

The entrance criteria's for each phase of testing must be met before the next phase can commence. Now the criteria’s for pass and fail are given below.

## Suspension Criteria

Test case execution will be suspended if a critical failure that impedes the ability or value in performing the associated test(s) is discovered.

## Resumption Criteria

Test case execution will be resumed when a developer thinks the problem causing suspension has been fixed. All test cases that exercise the modified portions of the project will be re-executed.

## Approval Criteria

The results of each test case will be considered “approved” if the results meet the expected results description in the test case.

# **TESTING PROCESS**

## Test Deliverables

A test report will be included in the project deliverables. This report will contain the set of test cases, a history of all formal test executions and a summary of the final state of the test suite.

## Testing Tasks

* Develop Test Cases
* Develop scripts for the automated tasks
* Prepare a database solely for automated testing to set up and tear down
* Execute tests
* Report defects
* Complete test report
* Manage change

## Responsibilities

All developers are responsible for the completion of all component and integration testing tasks.

Asya Georgieva is responsible for approving the Test Plan and the Test Cases. Asya is also responsible for critiquing the demonstrations and final acceptance of all work products.

## Schedule

|  |  |  |
| --- | --- | --- |
| **Task** | **Deliverable** | **Week Performed**  **Must be concrete date** |
| Develop test cases | Test Cases document | 1 |
| Develop scripts for automated testing | Test scripts | 2 |
| Prepare testing database |  | 4 |
| Execute tests | Daily Test Reports | 5 |
| Report defects | Weekly Bug Reports | 5 |
| Complete test report | Test Case Report | 8 |

# **ENVIRONMENTAL REQUIREMENTS**

## Hardware

* 1 Microsoft Windows PC computer with a broadband connection
* 1 Microsoft Windows PC with a broadband connection to the PC above - to ensure server reliability

## Software

* 1 installation of Windows XP or above
* 1 installation of Windows Server
* 1 browser support - Chrome, Firefox, Safari, Opera, IE
* 1 Microsoft Office (Word, Excel) for reports and defect tracking

## Security

The test environment has a specific security requirement - administrator access has to be provided.

## Tools

* Selenium Web Driver - for testing
* Microsoft Test Manager 2013 - for test case management system

## Risks and Assumptions

The main risk would be the dependency on the other modules in the system. The module that we are testing is dependent on the functions and data from other modules, which are assigned to other teams. Communication between teams will be important to keep the workflow going.

Another risk would be that the system is internet-based and if the server is down we will not be able to perform the testing of the module which is assigned to Team “Apple”.

# **Change Management Procedures**

The procedure for changing the test plan is as follows:

Propose the change to the software development team. This can be done at a team meeting or via email. The team will discuss the proposal and either reject it, accept it, or accept it with modifications.

If the team accepts the proposal, then it and any agreed upon modifications will be implemented.

# **Plan Approvals**

|  |  |  |
| --- | --- | --- |
| Name | Signature | Date |
| Kiril Todorov |  |  |
| Vanina Nenova |  |  |
| Svetlin Nyagolov |  |  |
| Valeria Dimitrova |  |  |
| Stanislav Iliev |  |  |
| Mladen Mladenov |  |  |

# 

# **Version History**

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| --- | --- | --- | --- |
| Version # | Reason for Change | Revised By | Date |
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