

International School

**Capstone Project 1**

*CMU-SE 450*

**Test Plan Document**

*Version: 1.2*

*Date: 8/11/2021*

**School Connect Application**

**Submitted by:**

Nguyen Thanh Phu

Nguyen Trung Hieu

Dang Nguyen Bao Hoai

**Approved by**

Nguyen Minh Nhat

**Test Plan Document Panel Representative:**

Name Signature Date

**Capstone Project 1- Mentor:**

Name Signature Date

**Project Information**

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| --- | --- | --- | --- | --- |
| **Project acronym** | SConA | | | |
| **Project Title** | School Connect Application | | | |
| **Start Date** | 22-Aug-2021 | **End Date** | | 18-Dec-2021 |
| **Lead Institution** | International School, Duy Tan University | | | |
| **Project Mentor & contact details** | Name: Nguyen Minh Nhat  Email: nhatnm2010@gmail.com  Tel: +84 905 125 143 | | | |
| **Scrum Master & contact details** | Name: Nguyen Thanh Phu  Email: [thangphu104@gmai.com](mailto:thangphu104@gmai.com)  Tel: +84 772 492 301 | | | |
| **Team members** | **Name** | **Email** | **Tel** | |
| Nguyen Trung Hieu | hnguyentrung20@gmail.com | +84 975 299 149 | |
| Dang Nguyen Bao Hoai | dangbhoai@gmail.com | +84 773 305 395 | |

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| --- | --- | --- | --- |
| **DOCUMENT INFORMATION** | | | |
| **Document Title** | Test Plan Document | | |
| **Author(s)** | Team C1SE.44 | | |
| **Role** | C1SE.44- Test Plan Document -SConAdocx-v1.2 | | |
| **Date** | 08-Nov-2021 | **Filename** | C1SE.44- Test Plan Document -SConAdocx-v1.2 |
| **URL** |  | | |
| **Access** | Project and CMU Program | | |

**DOCUMENT APPROVALS**

The following signatures are required for approval of this document.

|  |  |  |
| --- | --- | --- |
| Nguyen Minh Nhat  *Mentor* | Signature | Date |
| Nguyen Thanh Phu  *Scrum Master, DevTeam* | Signature | Date |
| Nguyen Trung Hieu  *Product owner, DevTeam* | Signature | Date |
| Dang Nguyen Bao Hoai  *Product owner, DevTeam* | Signature | Date |

REVISION HISTORY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Comments** | **Author** | **Approval** |
| 1.0 | 07/09/2021 | Create Test Plan Document | Dang Nguyen Bao Hoai |  |
| 1.1 | 07/10/2021 | Update Test Plan Sprint 2 Document | Dang Nguyen Bao Hoai |  |
| 1.2 | 08/11/2021 | Update Test Plan Sprint 3 Document | Dang Nguyen Bao Hoai |  |
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# **Introduction**

A test plan is a detailed software verification document that provides specifics on how the validate will test all aspects of software design. Test plans are test specifications used as guides for writing test case suites for design validation in both the software engineering fields. This test plan document contains a description of product functionality, a description of test cases to be written for each function, and a description of the testing platform to be used.

## **Purpose**

The purpose of the Test Plan is to define, schedule and monitor the test execution. It supports the following objectives:

* Provide a high-level list of the major target test functions
* List the Requirements for Test
* Describe the testing strategies to be employed on each target test functions
* Identify the required resources and schedule the Test execution

## **Scope**

This Test Plan is for release test plan for SconA system.

The Test Plan defines the unit, integration and system testing approach. The test scope includes the following:

* Testing of all functions
* Application performance
* Use cases requirements listed in the Product Backlog and User Stories document

## **Out of scope**

The following is considered out of scope for SconA Test Plan and testing scope: Performance testing for SConA system

## **Reference**

**Table 1: Document references**

|  |  |
| --- | --- |
| **No** | **Document references** |
| 01 | Proposal document |
| 02 | Product Backlog document |
| 03 | Project Plan Document |

## **Risk list**

**Table 2: Risks list**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk** | **Mitigation Strategy** | **Responsibility** | **Contingency (Risk is realized)** |  |
| External Risks | Get fewer projects but will definitely succeed or have a high success rate | Not under control of the Project Team or Project Steering Group | Do your part, recognize and eliminate risks as soon as possible |  |
| Project Management | Agree on all the standards before starting the project | Leader | It is mandatory to revise the whole project to the original standard if it is not correct |  |
| Tester | Sick , busy or crash cannot do it | Team tester | self-supplementing undo their assigned work, the way other members are supposed to support |  |
| Technology | Technology analysis before starting each project | Tester | Exchange learning in groups |  |
| Tester Skill | Train, or recruit experienced people | Tester, Team leader | Train technology professionals or invite professors to help with the project |  |
| Estimate Plan | Calculate carefully and accurately when taking requests and analyzing, apply good models and methods for estimation | Request Collectors, Request Analyst | Enlist the product delivery time or overtime for timely delivery |  |
| Automation Tool Risks | Choose the right tools and quality, check the tools before starting the project | Tester, Team leader | Exchange in groups, Change new tools and remove inconsistent tools |  |
| Out of system scope | Analyze and find solutions to test all testable areas | Tester |  |  |

# **Target Test Areas**

* Black box Testing

# **Test Specification**

## **Features**

**Website**

* FE01 – Authentication user’s account
* Login with username and password
* FE02 – Create post for user(student, teacher, censor)
* Import image
* Fill in the title, content in the post
* FE03 – Add information account user
* Add information account user
* FE04 – View information account user
* View information account user
* FE05 – View post information
* View post information
* FE06 – View and create/modify forum information
* View forum information
* Create forum information
* Modify forum information
* FE07 – Censorship post and member in forum
* Censorship post in forum
* Censorship member in forum
* FE08 – Comment
* Comment the post
* FE09 – View report post and member in forum
* View report post in forum
* FE10 – Sent message
* Sent message
* FE11 – Delete post, member, comment, chat box
* Delete the post
* Delete member in the forum
* Delete the comment
* Delete chat box
* FE12 – Notify new message and new post
* Notification the new post
* Notification the new message
* FE13 – Send report message and comment(user)
* Send report message
* Send report comment
* FE14 – Receive report message and comment(admin)
* Receive report message
* Receive report comment
  1. **Test deliverables**
* Test Plan Document
* Test Case Document
* Test Summary Report

## **Requirements for test**

**Test items**

The following list describes the features that will be tested:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID Function** | **Function** | **A part of** | **Priority** | **Type test case** | **Constraints** |
| FE01 – 01 | Login with useranme and password | Authentication | Medium | User interface  Function test  Security test | The user can log in with their username and password to use other features |
| FE02 – 01 | Import image | Create post for user | Very hight | User interface  Function test  Load Test  Usability Test | The users can import an image to the post |
| FE02 – 02 | Fill in the title, content in the post | Very hight | User interface  Function test  Usability Test  Load Test | The users can fill in the title, content in the post |
| FE03 – 01 | Add information account user | Add information account user | Hight | User interface  Function test  Usability Test  Load Test | The admins can create accounts for users on their admin page |
| FE04 – 01 | View information account user | View information account user | Medium | User interface  Function test  Usability Test  Load Test | The admins can view accounts for users on their admin page |
| FE05 – 01 | View post information | View post information | Medium | User interface  Function test  Usability Test  Load Test | The users can see post information their own or everyone on the user page |
| FE06 – 01 | View forum information | View and create/modify forum information | Medium | User interface  Function test  Usability Test  Load Test | The admins can view forums information on their admin page |
| FE06 – 02 | Create forum information | Very hight | User interface  Function test  Usability Test  Load Test | The admins can create forum on their admin page |
| FE06 – 03 | Modify forum information | Hight | User interface  Function test  Usability Test  Load Test | The admins can modify accounts on their admin page |
| FE07 – 01 | Censorship post in forum | Censorship post and member in forum | Hight | User interface  Function test  Usability Test  Load Test | Censor can control new posts to avoid malicious, inappropriate posts before posting |
| FE07 – 02 | Censorship member in forum | Hight | User interface  Function test  Usability Test  Load Test | Censor can control forum members, avoid fake accounts |
| FE08 – 01 | Comment | Comment | Medium | User interface  Function test  Usability Test  Load Test | The users can comment, give my opinion on the posts I like and care about |
| FE09 – 01 | View report post and member in forum | View report post and member in forum | Hight | User interface  Function test  Usability Test  Load Test | The admins can have an overview of the number of reported posts and members on the forum |
| FE10 – 01 | Sent message | Sent message | Very hight | User interface  Function test  Usability Test  Load Test | The users can respond and receive information privately |
| FE11 – 01 | Delete the post | Delete post, member, comment, chat box | Hight | Function test  Usability Test  Load Test | The users can delete their posts when they feel inappropriate |
| FE11 – 02 | Delete member in the forum | Hight | Function test  Usability Test  Load Test | The censor wants can control the forum, remove members who violate the forum's rules |
| FE11 – 03 | Delete the comment | Hight | Function test  Usability Test  Load Test | The users can delete their comments when they feel inappropriate |
| FE11 – 04 | Delete chat box | Hight | Function test  Usability Test  Load Test | The users can delete their chat box when they feel inappropriate |
| FE12 – 01 | Notification the new post | Notification the new post and new message | Hight | User interface  Function test  Usability Test  Load Test | The users can see what forum posts I am following and the censor can control new posts to avoid malicious, inappropriate posts before posting |
| FE12 – 02 | Notification the new message | Medium | User interface  Function test  Usability Test  Load Test | The users can see who sent messages and reply |
| FE13 – 01 | Send report message | Send report message and comment(user) | Medium | User interface  Function test  Usability Test  Load Test | The users can send report the admin or censor can delete the comments toxic |
| FE13 – 02 | Send report comment | Medium | User interface  Function test  Usability Test  Load Test | The users can send report the admin or censor can delete the messages toxic |
| FE14 – 01 | Receive report message | Receive report message and comment(admin) | Medium | User interface  Function test  Usability Test  Load Test | The admin can control and block malicious messages |
| FE14 – 02 | Receive report comment | Medium | User interface  Function test  Usability Test  Load Test | The admin can control and block malicious comments |

**Test strategy**

* Describe the overall approach to testing. For each major group of features or feature combinations, specify the approach which will ensure that these feature groups are adequately tested. Specify the major activities, techniques, and tools which are used to test the designated groups of features
* The approach should be described with sufficient details to permit identification of the major testing tasks and estimation of the time required to do each one.

**Hardware environment**

* Windows 7, 8, 10
* Android 10

## **Test schedule**

**Human resources**

|  |  |
| --- | --- |
| **Name** | **Role** |
| Dang Nguyen Bao Hoai, Nguyen Trung Hieu | Tester |

**Test Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint 1 | Code page login for users, admin | Dang Nguyen Bao Hoai, Nguyen Trung Hieu | 06/09/2021-03/10/2021 |
| Code front-end homepage for users, admin |
| Code front-end create post |
| Code front-end add account information user |
| Frontend restful API for login |
| Backend restful API for login |
| Frontend restful API for create post |
| Backend restful API for create post |
| Frontend restful API for add information account |
| Backend restful API for add information account |
| Sprint 2 | Code front-end page view account information | Dang Nguyen Bao Hoai, Nguyen Trung Hieu | 04/10/2021-31/10/2021 |
| Code front-end page view post information |
| Code front-end page view and create/modify forum information |
| Code front-end page censorship post and member |
| Code front-end see report post and member in forum |
| Code front-end comment |
| Fix bug in sprint 1 |
| Code back-end page view account information |
| Code back-end page view post information |
| Code back-end page view and create/modify forum information |
| Code back-end page censorship post and member |
| Code back-end see report post and member in forum |
| Code back-end comment |
| Sprint 3 | Code Front-end for sent message | Dang Nguyen Bao Hoai, Nguyen Trung Hieu | 1/11/2021-21/11/2021 |
| Code front-end for notify new message and new post |
| Code front-end for forum function bar and comment |
| Code front-end send report message and comment (user) |
| Code Front-end receive report message and comment (admin) |
| [API] HTTP ok status |
| Code API for sent message |
| Code API notify new post and new message |
| Code API delete post and member |
| Code API delete comment |
| Code API delete chat box |
| Code API notification |
| Code API report message and comment |

# **Test Cycle and Exit Criteria**

## **Entry criteria**

* All test hardware platforms must have been successfully installed, configured, and functioning properly.
* All the necessary documentation, design, and requirements information should be available that will allow testers to operate the system and judge the correct behavior.
* Proper test case is available.
* The test environment such as, lab, hardware, software, and system administration support should be ready.

## **Exit criteria**

* All test cases have been run.
* A certain level of requirements coverage has been achieved.
* No high priority or severe bugs are left outstanding.
* All high-risk areas have been fully tested, with only minor residual risks left outstanding.
* The schedule has been achieved.
* Not over the allowed project budget