**WIL Report Management System**

Software Requirement Specification

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By

**Ms. Phinthip Samutloiwon 552115050**

**Mr. Veerapat In-ongkarn 562115055**

Department of Software Engineering

College of Arts, Media and Technology

Chiang Mai University

Project Advisor

**Dr. Prompong Sugunnasil**

**Document History**

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| --- | --- | --- | --- | --- | --- | --- | --- |
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| WIL project-based report System Proposal\_V.0.1.docx | Created document  - Add Chapter I | Introduction   - Purpose  - Scope  - User Characteristic  - Operation Environment  -Design and Implementation  Constraints  - Dependency Document  - Acronyms  - Document format  - Definition  - Add Chapter II | Overall Description  - Project Perspective  - Project Functions  - Functional Requirement - Add Chapter III | Specific Requirement  - Use Case - Add Chapter IV | Software Requirement Specification  - URS-01: Login | | Draft | 10-02-2017 | PS,VI | PS,VI | PS,VI |

Table of contents

# Chapter I | Introduction

## Purpose

The purpose of this software requirement specification document (SRS) is to detail overview for WIL report management web application. The document describes how an application will interact with other system and human. It is also contain a detail description of functional and non-functional requirement. In other words, it describe what system can do, limitations, type of users, parameters, and other requirements which support the development. The software requirement specification provides developers and users to understand each other in structure details.

## Project Scope

WIL report management system (WRMS) is a web application for managing tasks of students, WIL weekly report, and comments of mentors and supervisors. All users shall receive a real-time notification via the web application and Email. This application was designed to use in College of Art, Media, and Technology. WRMS supports desktop and mobile device on chrome, Safari, and opera.

## Acronyms and definitions Acronyms

URS User Requirement Specification  
SRS Software Requirement Specification  
WRMS WIL Report Management System  
UC Use Case  
CD Class diagram  
AD Activity diagram  
SD Sequence diagram  
UI User interface  
UML Unified Modeling Language

## Definitions

|  |  |
| --- | --- |
| Use case | In UML, a complete task of a system that provides a measurable result of value for an actor. More formally, a use case defines a set of use case instances or scenarios [1] |
| Feature | Transformation of input parameters to output parameters based on a specified algorithm. It describes the functionality of a product in the language of the product. Used for requirements analysis, design, coding, testing or maintenance. [2] |
| Requirement | (1) A condition or capability needed by a user to solve a problem or achieve an objective. (2) A condition or capability that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed document. (3) A documented representation of a condition or capability as in definition (1) or (2). [2] |
| Specification | Precise description of an activity or work product which serves as basis or input for further activities or work product. A specification can comprise requirements to a product and how they will be solved. Different parts of a specification (e.g., what is to be done, how it will be done) must not be mixed. [2] |
| UML | Unified Modeling Languages. Standardized notation for modeling design descriptions, architectures or scenarios. Not depending on a specific method. Issued and maintained by the object Management Group (OMG). [2] |
| System | A conceptual entity defined by its boundaries. Examples include companies, divisions, sets of software applications, components, machines, and devices. [1] |

# Chapter II | Overall Description

## Product perspective

WIL report management system (WRMS) consist of 5 parts which are User Management system, Tasks management system, Comments management system, Report export system, Notification system. When students generate report, the system shall change all list tasks into sentences and ordered by weekly or monthly. Mentor and Supervisor are able to see the students’ progress and also leave some comments. After leaving a comment, the system will send a real-time notification to all involved users.

## Product Functions

WRMS is a web application and mobile application which helps students to create WIL reports from lists of tasks to sentences. It also helps mentors and supervisor to see the progress of students. Furthermore, Mentors and supervisor are able to leave their comments on tasks of students.

## User Characteristic

WIL report management web application includes 4 types of users:

1. Administrator – the user who can initial all functions in the application which are login, logout, register to the system, edit profile of users, edit password of users.
2. Students – the user who is able to login, edit their own profile, logout, view and manage tasks, view task statistics, export reports, and receive notifications.
3. Mentor – the user who is able to login, edit their own profile, logout manage comments, view reports, and receive notifications.
4. Supervisor – the user who is able to login, edit their own profile, logout manage comments, view reports, and receive notifications.
5. Users – Student, Mentor, and supervisor

## Operation Environment

WIL report management system is a web application which requires internet connection. The users have to access to the website though internet browser including Internet Explorer 10 (or above), Safari version 9, and opera. The system support windows 8.1 and 10, Mac OS sierra, android 4.0, and iOS 10.

## Design and Implementation constants

2.5.1. The application requires internet connection.  
2.5.2. The prototype is available in English.  
2.5.3. Administrator shall create an account for a user.  
2.5.4. Mentor and Supervisor are not able to manage tasks of students.   
2.5.5. Overload data could affect to the performance of web application.

# Chapter III | Software Requirement Specification

## User requirements

**Feature #1: Users management**

1. Visitor can register to the system.
2. Users can edit their own profile.
3. Users can login into the system.
4. Users can logout from the system.
5. Student can add registration code of supervisor and mentor.

**Feature #2: Task management**

1. Students can view tasks overview of a project.
2. Students can view the statistics of tasks.
3. Students can add a project.
4. Students can delete a project.
5. Students can add tasks of a project.
6. Students can edit tasks of a project.
7. Students can delete tasks of a project.
8. Students can move tasks of a project.

**Feature #3: Progress tracking**

1. Student can view comments from Mentor and Supervisor.
2. Students can reply a comment of Mentor and Supervisor.
3. Student can delete their own comment.
4. Mentors and Supervisor can view tasks overview of a project.
5. Mentors and Supervisor can view the statistics of tasks.
6. Mentor can view comments in student’s report.
7. Mentor can add comments in student’s report.
8. Mentor can edit comments in student’s report.
9. Mentor can delete comments in student’s report.
10. Supervisor can view comments in student’s report.
11. Supervisor can add comments in student’s report.
12. Supervisor can edit comments in student’s report.
13. Supervisor can delete comments in student’s report.

**Feature #4: Report export**

1. Users can view weekly report.
2. Users can generate a printable weekly report file.

**Feature #5: Web and Email notification**

1. Student can receive comment notification message on Web application.
2. Mentor and supervisor can receive activities notification message on Web application.
3. Student can receive comment notification message by Email.
4. Mentor and supervisor can receive activities notification message by Email.

## System requirements

1. System shall provide UI for the visitor to select the role of user.
2. System shall provide UI for the visitor to receive name, surname, email, password, student\_id, company name.
3. S System shall provide UI to display an error message if an input email is not matched with constraint.
4. System shall provide UI
5. System shall provide UI to display that the visitor registered successful.
6. System shall provide registration code for supervisor and mentor.
7. System shall provide UI to display an error message if an input name is not matched with constraint.
8. System shall provide UI to display an error message if an input surname is not matched with constraint.
9. System shall provide UI to display an error message if an input email is not matched with constraint.
10. System shall provide UI to display an error message if an input password is not matched with constraint
11. System shall provide UI to display an error message if a company name is not matched with constraint.
12. System shall validate name, surname, email, password, student\_id, company name.
13. System shall save username, password, name, surname, email, student\_id, as a new user on the system with the default status for the visitor.
14. System shall provide UI for the student to edit name, surname, email, password, student\_id, company name, and signature.
15. System shall provide UI for the mentor to edit name, surname, email, password, company name.
16. System shall provide UI for the supervisor to edit name, surname, email, password, and signature.
17. System shall provide UI to display an error message if the student edit their own information which the “name” is not matched with constraint.
18. System shall provide UI to display an error message if the student edit their own information which the “surname” is not matched with constraint.
19. System shall provide UI to display an error message if the student edit their own information which the “email” is not matched with constraint.
20. System shall provide UI to display an error message if the student edit their own information which the “password” is not matched with constraint.
21. System shall provide UI to display an error message if the student edit their own information which the “student\_id” is not matched with constraint.
22. System shall provide UI to display an error message if the student edit their own information which the “company name” is not matched with constraint.
23. System shall provide UI to display an error message if the mentor edit their own information which the “name” is not matched with constraint.
24. System shall provide UI to display an error message if the mentor edit their own information which the “surname” is not matched with constraint.
25. System shall provide UI to display an error message if the mentor edit their own information which the “email” is not matched with constraint.
26. System shall provide UI to display an error message if the mentor edit their own information which the “password” is not matched with constraint.
27. System shall provide UI to display an error message if the mentor edit their own information which the “company name” is not matched with constraint.
28. System shall provide UI to display an error message if the supervisor edit their own information which the “name” is not matched with constraint.
29. System shall provide UI to display an error message if the supervisor edit their own information which the “surname” is not matched with constraint.
30. System shall provide UI to display an error message if the supervisor edit their own information which the “email” is not matched with constraint.
31. System shall provide UI to display an error message if the supervisor edit their own information which the “password” is not matched with constraint.
32. System shall provide “add signature” button to add their signature.
33. System shall save data to database.
34. System shall provide UI for the student to login.
35. System shall provide UI for the mentor to login.
36. System shall provide UI for the supervisor to login.
37. System shall receive email and password.
38. System shall verify email and password.
39. System shall provide UI to display the student login successful.
40. System shall provide UI to display the mentor login successful.
41. System shall provide UI to display the supervisor login successful.
42. System shall provide UI to display an error message that email or password are wrong.
43. System shall navigates the student to access the student dashboard.
44. System shall navigates the mentor to access the mentor dashboard.
45. System shall navigate the supervisor to access the supervisor dashboard.
46. System shall provide UI for the administrator to logout.
47. System shall provide UI for the student to logout.
48. System shall provide UI for the mentor to logout.
49. System shall provide UI for the supervisor to logout.
50. System shall provide UI to display that the administrator logout successful.
51. System shall provide UI to display that the student logout successful.
52. System shall provide UI to display that the mentor logout successful.
53. System shall provide UI to display that the supervisor logout successful.
54. System shall provide UI to receive a code.
55. System shall provide an add button for adding a code.
56. System shall connect to database.
57. System shall provide UI to display student dashboard.
58. System shall provide UI to display projects detail page.
59. System shall provide UI to display lists and cards of tasks.
60. System shall provide UI to display the statistics of tasks.
61. System shall provide UI which receive project name, project description, and due date.
62. System shall provide delete button interface for deleting a project.
63. System shall delete a project in database.
64. System shall provide UI which receive tasks name, task description, and task due date.
65. System shall provide a button to delete a task.
66. System shall provide a delete conformation message.
67. System shall provide a move button to move a task.
68. System shall provide a conformation message “Do you want to move this task?”.
69. System shall display a successful message “Move a task success”
70. System shall provide an error message if the move destination is not match with constraints “You cannot move this task to xxxxx”.
71. System shall provide UI to display a comment of mentor and supervisor in each task.
72. System shall provide a reply button for replying comments of mentor and supervisor.
73. System shall provide a submit button for saving data.
74. System shall display a successful message “comment is added.”
75. System shall provide a delete comment button.
76. System shall display a confirmation message “Do you want to delete this comment?”
77. System shall provide a cancel button.
78. System shall cancel to delete a comment.
79. System shall display a successful message “Comment is deleted.”.
80. System shall provide UI to display tasks of students who add registration code of mentor and supervisor.
81. System shall provide UI to display list of students.
82. System shall provide UI to display specific student’s dash board.
83. System shall provide UI to display statistics of student’s tasks.
84. System shall provide “show report” button to display a student’s weekly report.
85. System shall provide UI to display a student’s weekly report.
86. System shall provide UI which receive comment of mentor in weekly form.
87. System shall display a confirmation message “Do you want to save this comment?”.
88. System shall display a successful message “Add comment success”.
89. System shall provide UI to edit a comment of mentor in daily form.
90. System shall provide UI to edit a comment of mentor in weekly form.
91. System shall display a confirmation message “Do you want to edit this comment?”.
92. System shall display a successful message “Edit comment success”.
93. System shall provide UI to display a list of mentor’s comments.
94. System shall provide delete button for deleting a comment.
95. System shall display a cancel button.
96. System shall display a confirmation message “Do you want to delete this comment?”.
97. System shall display a successful message “comment is deleted”
98. System shall provide UI to display comment options.
99. System shall display comments of supervisor in daily or weekly form.
100. System shall provide UI of adding comment options.
101. System shall provide UI to add a comment of supervisor in daily form.
102. System shall provide UI to add a comment of supervisor in weekly form.
103. System shall provide a save and cancel button.
104. System shall cancel a comment.
105. System shall display a confirmation message “Do you want to add this comment?”.
106. System shall display a successful message “add comment success”.
107. System shall provide UI of editing comment options.
108. System shall provide UI to edit a comment of supervisor in daily form.
109. System shall provide UI to edit a comment of supervisor in weekly form.
110. System shall display a confirmation message “Do you want to edit this comment?”.
111. System shall display a successful message “Edit comment success”.
112. System shall provide UI to display a list of supervisor’s comments.
113. System shall arrange all tasks based on time-stamp.
114. System shall separate tasks in weekly.
115. System shall merge keywords in a task with a sentence template.
116. System shall provide UI to display student’s weekly report content, comments, Mentor’s signature, student’s signature.
117. System shall convert html weekly report to pdf report.
118. System shall display printable weekly report.
119. System shall provide a download button to download a pdf report.
120. System shall detect comments of mentor and supervisor.
121. System shall arrange comments based on time-stamp.
122. System shall provide UI on the right to display comment activities of mentor and supervisor from the earliest to the latest comment.
123. System shall detect task activities of students who under their guidance.
124. System shall arrange task activities based on time-stamp.
125. System shall provide UI on the right to display task activities of mentor and supervisor from the earliest to the latest activity.
126. System shall detect comments of mentor and supervisor.
127. System shall provide email template of comment notification.
128. System shall merge the content of comment to an email template.
129. System shall send a notification via email based on time-stamp of comment.
130. System shall provide email template of task activities notification.
131. System shall merge the content of task to an email template.
132. System shall send a notification via email based on time-stamp of task.

## User requirement specification with system requirement specification

# Chapter IV | Requirement Specification

## Use case diagram

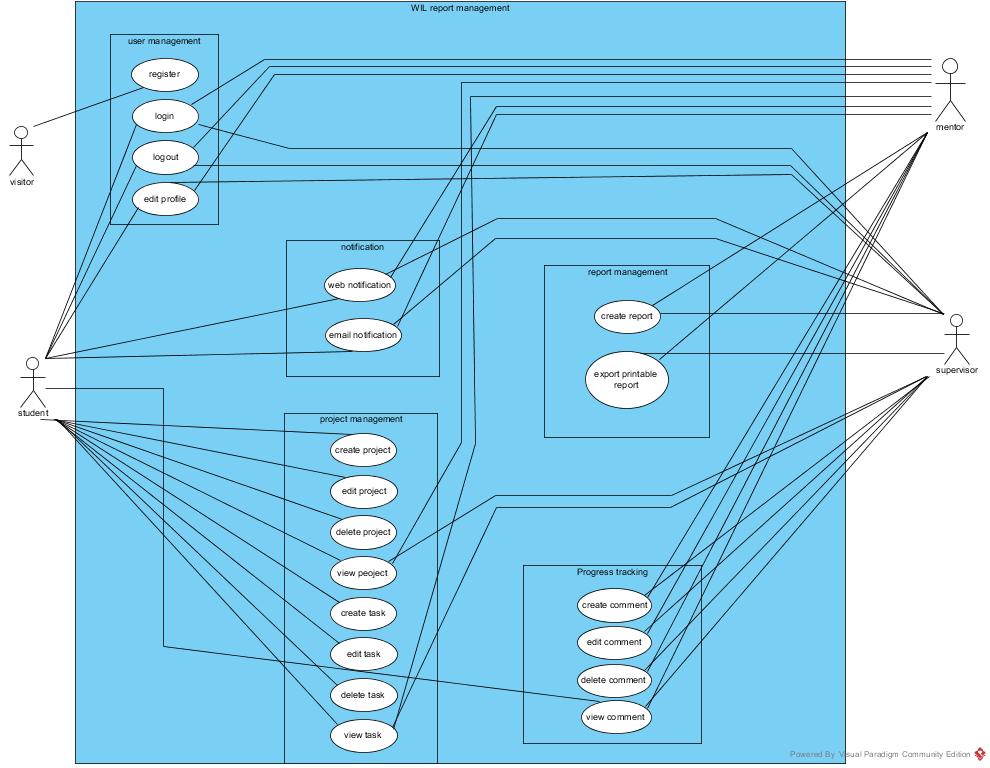


Figure 1 Use case diagram

## Use case description

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-01 | | |
| **Use Case Name:** | Visitor can register to the system. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** | Visitor | | |
| **Description:** | Visitor can register to the WIL report management system. | | |
| **Trigger:** | Visitor enter to WIL report management web application. | | |
| **Preconditions:** | - | | |
| **Post conditions:** | Visitor can create a user account. | | |
| **Normal Flow:** | 1. System shall provide UI for the visitor to select the role of user. 2. Visitor select a user role. | | |
| **Alternative Flows:** | a.) If visitor select “student” role:   1. System shall provide UI for the visitor to receive name, surname, email, password, student\_id, company name. 2. Visitor input name, surname, email, password, student\_id, company name. 3. Visitor click submit button. 4. System shall display a confirmation message “Do you want to save your profile information?” 5. Visitor click ok button. 6. System shall validate name, surname, email, password, student\_id, company name. 7. System shall provide UI to display that the visitor registered successful. 8. System shall save username, password, name, surname, email, student\_id, as a new user on the system with the default status for the visitor. 9. System shall save data into the database.   b.) If visitor select “Mentor” or “Supervisor” role:   1. System shall provide UI for the visitor to receive name, surname, email, password, company name. 2. Visitor input name, surname, email, password, company name. 3. Visitor click submit button. 4. System shall display a confirmation message “Do you want to save your profile information?” 5. Visitor click ok button. 6. System shall validate name, surname, email, password, company name. 7. System shall provide registration code for supervisor and mentor. 8. System shall provide UI to display that the visitor registered successful. 9. System shall save data into the database. | | |
| **Exceptions:** | From a.5) and b.5) If visitor input incorrect format of name, surname, email, password, company name or empty forms.   1. System shall provide UI to display an error message if an input email is not matched with constraint. 2. System shall provide UI to display an error message if an input name is not matched with constraint. 3. System shall provide UI to display an error message if an input surname is not matched with constraint. 4. System shall provide UI to display an error message if an input email is not matched with constraint. 5. System shall provide UI to display an error message if an input password is not matched with constraint 6. System shall provide UI to display an error message if a company name is not matched with constraint.   From a.4) and b.4) If visitor click cancel button:   1. System shall go back to previous UI. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-02 | | |
| **Use Case Name:** | Users can edit their own profile. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** | Student, Mentor, Supervisor | | |
| **Description:** | Users can edit their own profile. | | |
| **Trigger:** | Users click on edit profile button. | | |
| **Preconditions:** | UC-01, UC-03 System connects to database. | | |
| **Post conditions:** | Profile of users are updated. | | |
| **Normal Flow:** | 1. System shall check user\_id. 2. System shall provide UI for the student to edit information. | | |
| **Alternative Flows:** | From 2)  a.) If user is student:   1. System shall provide UI to receive name, surname, email, password, student\_id, company name, and signature. 2. Student input name, surname, email, password, student\_id, company name, Mentor and Supervisor code, and signature. 3. Student click submit button. 4. System shall display a confirmation message “Do you want to edit your profile information?” 5. Student click ok button. 6. System shall validate name, surname, email, password, student\_id, company name. 7. System shall display successful message. 8. System shall save username, password, name, surname, email, student\_id, as a new user on the system with the default status for the visitor. 9. System shall save data into the database.   b.) If user is “Mentor” or “Supervisor” role:   1. System shall provide UI to receive name, surname, email, password, company name, and signature. 2. Mentor or Supervisor input name, surname, email, password, company name, and signature. 3. Mentor or Supervisor click submit button. 4. System shall display a confirmation message “Do you want to save your profile information?” 5. Mentor or Supervisor click ok button. 6. System shall validate name, surname, email, password, company name. 7. System shall provide registration code for supervisor and mentor. 8. System shall display successful message. 9. System shall save data into the database. | | |
| **Exceptions:** | From a.5) If student input incorrect format of name, surname, email, password, student\_id, company name or empty forms:   1. System shall provide UI to display an error message if the student edit their own information which the “name” is not matched with constraint. 2. System shall provide UI to display an error message if the student edit their own information which the “surname” is not matched with constraint. 3. System shall provide UI to display an error message if the student edit their own information which the “email” is not matched with constraint. 4. System shall provide UI to display an error message if the student edit their own information which the “password” is not matched with constraint. 5. System shall provide UI to display an error message if the student edit their own information which the “student\_id” is not matched with constraint. 6. System shall provide UI to display an error message if the student edit their own information which the “company name” is not matched with constraint. 7. System shall provide UI to display an error message if the student edit their own information which the “Mentor and supervisor code” does not exist in database.   From b.5) If Mentor or supervisor input incorrect format of name, surname, email, password, company name or empty forms:   1. System shall provide UI to display an error message if the mentor or supervisor edit their own information which the “name” is not matched with constraint. 2. System shall provide UI to display an error message if the mentor or supervisor edit their own information which the “surname” is not matched with constraint. 3. System shall provide UI to display an error message if the mentor or supervisor edit their own information which the “email” is not matched with constraint. 4. System shall provide UI to display an error message if the mentor or supervisor edit their own information which the “password” is not matched with constraint. 5. System shall provide UI to display an error message if the mentor or supervisor edit their own information which the “company name” is not matched with constraint.   From a.4) and b.4) If visitor click cancel button:   1. System shall go back to previous UI. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-03 | | |
| **Use Case Name:** | Users can login into the system. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** | Student, Mentor, Supervisor | | |
| **Description:** | Users can login into the WIL report management system. | | |
| **Trigger:** | Users go to WIL report management web application.  User click on login button. | | |
| **Preconditions:** | Users has an account. | | |
| **Post conditions:** | Users are directed to their role dash board.  User’s account session start. | | |
| **Normal Flow:** | 1. System shall provide UI to login 2. Users input email and password. 3. System shall receive email and password. 4. User click ok button. 5. System shall verify email and password. 6. System shall provide UI to display the login successful. | | |
| **Alternative Flows:** | From 6.)  a.) If user is student:   1. System shall navigates the student to access the student dashboard.   b.) If user is Mentor:   1. System shall navigates the mentor to access the mentor dashboard.   c.) If user is supervisor:   1. System shall navigate the supervisor to access the supervisor dashboard | | |
| **Exceptions:** | From4.) If users click cancel button:   1. System shall go back to previous page.   From 5.) If email and password are invalid:   1. System shall display an error message that email or password are wrong. 2. User click ok button. 3. System shall go back to previous page. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-04 | | |
| **Use Case Name:** | Users can logout from the system. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** | Student, Mentor, Supervisor | | |
| **Description:** | Users can logout from the WIL report management system. | | |
| **Trigger:** | Users click on logout button. | | |
| **Preconditions:** | UC-03 | | |
| **Post conditions:** | User’s account session is expired. | | |
| **Normal Flow:** | 1. System shall provide UI to logout. 2. User click logout button. 3. System shall display a conformation message. 4. User click ok button. 5. System shall logout from the system. 6. System shall display that the logout successful message. 7. System shall redirect to login page. | | |
| **Alternative Flows:** | - | | |
| **Exceptions:** | From 4.) If user click cancel button:   1. System go back to previous UI. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-05 | | |
| **Use Case Name:** | Student can add registration code. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** | Student | | |
| **Description:** | Student can add registration code in edit profile page. | | |
| **Trigger:** | User select Mentor and Supervisor code input field. | | |
| **Preconditions:** | UC-01, UC-02, UC-03 Student has to know their mentor and supervisor code. | | |
| **Post conditions:** | Account of student connect to mentor and supervisor account. | | |
| **Normal Flow:** | 1. System shall provide UI to receive a code. 2. User click submit button. 3. System shall valid (a) code(s). 4. System display successful message. | | |
| **Alternative Flows:** | From 1.) If student would like to add more codes:   1. User click “+” button. 2. System shall provide an add button for adding another code.   From 4.) If student slick cancel button:   1. System go back to previous UI. | | |
| **Exceptions:** | From 5) If (a) code(s) is/are invalid:   1. System shall display an error message 2. System go back to previous UI. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-06 | | |
| **Use Case Name:** | Students can view tasks overview of a project. | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-07 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case ID:** | UC-08 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-09 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-10 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-11 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-12 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-13 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-14 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-15 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-17 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-17 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-18 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-19 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-20 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-21 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-22 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-23 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-24 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-25 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-26 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-27 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-28 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-29 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-30 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-31 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |

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| --- | --- | --- | --- |
| **Use Case ID:** | UC-32 | | |
| **Use Case Name:** |  | | |
| **Created By:** | Phinthip | **Last Updated By:** | Phinthip |
| **Date Created:** | 26/02/2017 | **Last Revision Date:** |  |
| **Actors:** |  | | |
| **Description:** |  | | |
| **Trigger:** |  | | |
| **Preconditions:** |  | | |
| **Post conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |