

SOFTWARE REQUIREMENT SPECIFICATION (SRS) DOCUMENT


PRESENTED BY:	PRESENTED TO:	DATE:
TechFour Solutions	2M WORLD SDN BHD	10 JANUARY 2024

TEAM MEMBERS

Chief Executive Officer	Chief Business Analyst	Chief Developer	Software Quality Assurance
			
MUHAMMAD ARIFF BIN AZMI	MASYITAH BINTI GHOZALI	NUR ALYA SYAKIRAH BINTI NASARUDIN	TANG XIAU QINNG
CB22086	CB22115	CB22141	CB22009

Submitted to the Software Requirement Workshop (BCS2233)
Bachelor of Computer Science (Software Engineering) with Honours
Faculty of Computing, Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA)

DOCUMENT APPROVAL

	Name	Date
<p>Authenticated by:</p>  <hr/> Project Leader	MUHAMMAD ARIFF BIN AZMI	10/01/2024
<p>Approved by:</p> <hr/> Project Manager	TS. AZMA BINTI ABDULLAH	
<p>Approved by:</p> <hr/> Client	DR. FARIDAH HANIM SHAKIRIN	

Software : Microsoft Word, Draw.io, Figma

Archiving Place : <http://surl.li/omnyn>

Copies Available : 4

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LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION	PAGE
SRS	Software Requirement Specification	1
SSP	StudentSphere System	2
TFS	TechFour Solution	2
V	Version	2
UC	Use Case	2
RQ	Requirement within Use Case	2
CRMP	Coach Rocket Master Ph.D.	1

1. INTRODUCTION

1.1 PURPOSE

This document is the Software Requirements Specification (SRS) for the StudentSphere System. This document aims to outline substantially the functional requirements, quality requirements, and constraints that will be implemented into the system to be referred to during the whole development process. It aims to be the binding contract between StudentSphere System and 2M World Sdn. Bhd. that explicitly outlines that the requirements stated in this document align with the stakeholders' expectations of the system without conflict.

The expected reader for this SRS document is developers, design engineer, tester, analyst and design, and stakeholders of this 2M World Sdn. Bhd. They can refer to this document if any issues occur within the system. This will help the development team and stakeholders to identify any issues that may arise during the development process and to make informed decisions and better plan for the project. By compiling the necessary criteria and using the appropriate methodological approaches for designing this system, the goal of this document is to establish the needs of the StudentSphere System.

The scope of this SRS document focuses on managing research- related information for its registered users, referred to as "Platinum" members. StudentSphere System prioritises user experience in this application. This document contains all the information of the system that we want to develop. This includes registration, profile management, research information, CRMP and mentor access, package selection which are elite, premium and professor platinum, and report generation. All the information must be in this system in order to make sure that we as developers deliver the system successfully.

1.2 SYSTEM IDENTIFICATION

SYSTEM TITLE	StudentSphere System	
SYSTEM ABBREVIATION	SSP	
SYSTEM IDENTIFICATION NUMBER	TFS-2023-SSP-001	
	Definitions of terminology used:	
	TFS	TechFour Solution (company name)
	2023	Implemented year
	SSP	StudentSphere (System name)
	001	Identification number
SYSTEM VERSION NUMBER	StudentSphere v1.0	
	Definitions of terminology used:	
	v1	Version Number
	0	Release Number
DOCUMENT IDENTIFICATION ID	SRS-SSP-2023	
	Definitions of terminology used:	
	SRS	Software Requirement Specification
	SSP	StudentSphere (System name)
	2023	Year the document created
USE CASE ID	UC-SSP-2023-100	
	Definitions of terminology used:	
	UC	Use Case
	SSP	StudentSphere (System name)
	2023	Year of Documentation
	100	Use Case Number

SOFTWARE REQUIREMENT SPECIFICATION (SRS) FACULTY OF COMPUTING

REQUIREMENT ID	RQ-SSP-2023-101	
	RQ	Requirement within Use Case
	SSP	StudentSphere (System name)
	2023	Year of Documentation
	1	Use Case Number
	01	Requirement Number

1.3 SYSTEM OVERVIEW

MODULE 1

The first module of the StudentSphere System focuses on registration, handling user profiles and research information. This system is designed for postgraduate students, which is called Platinum to help them complete their thesis during their studies. The users can choose the package based on their educational status which are Elite, Premium or Professor Platinum. The administrator will register all the user's information in the system such as name, IC number, address, phone number, email, university name, the progress of the thesis and other personal credentials. The Platinum also can choose their own password for their account in this system. This system also enables the Platinum to edit, update and manage their profiles. For instance, the Platinum can update their current draft performance for their thesis. This can help the CRMP and mentor to track the Platinum's performance. The platinum also can update research information such as title of the research, publication date, author name and other research information.

MODULE 2

The efficient management of expert domain information is a crucial aspect of the research management system developed for 2M World Sdn. Bhd. particularly within its second module. This module prioritises the input and maintenance of data related to expert researchers and their publications by the distinguished platinum users, classified as Premier, Elite and Professor Platinum. They use both mobile and web platforms to input details about expert researchers and their publications, creating a comprehensive database. The Platinum user can add up to 21 experts and these users can continually update expertise information, ensuring the system's relevancy. This module's structured framework catalogues and cross-references expert domain data, forming a robust repository that enhances system effectiveness. It facilitates connections between researchers, publications, and research domains, shedding light on collaborative networks within the Platinum user community which other Platinum can search and view the expert information that has been uploaded by other Platinum users in case they want to use the expert as references. Ultimately, this approach helps 2M World Sdn. Bhd. understand and leverage the diverse expertise within their Platinum users, fostering collaboration and knowledge exchange in research studies.

MODULE 3

The third module of the system is dedicated to managing publication data for Platinum users. The main goal is to simplify Platinum's publication processes, allowing users to easily view, upload, add, remove, and update their publications. When logged in, Platinum can access all the relevant information for each publication in the module. They can add various materials like books, articles, research papers, and journals, providing essential details such as title, field type, date, year, and the expert's name in their field of study. Platinum subscribers have the option to make updates and changes to ensure information is current. The module also includes a search and sorting function, allowing users to find specific publications based on categories like title, field of study, and institution name. This comprehensive platform provides Platinum with a seamless user experience to access and manage all their publications in one place.

MODULE 4

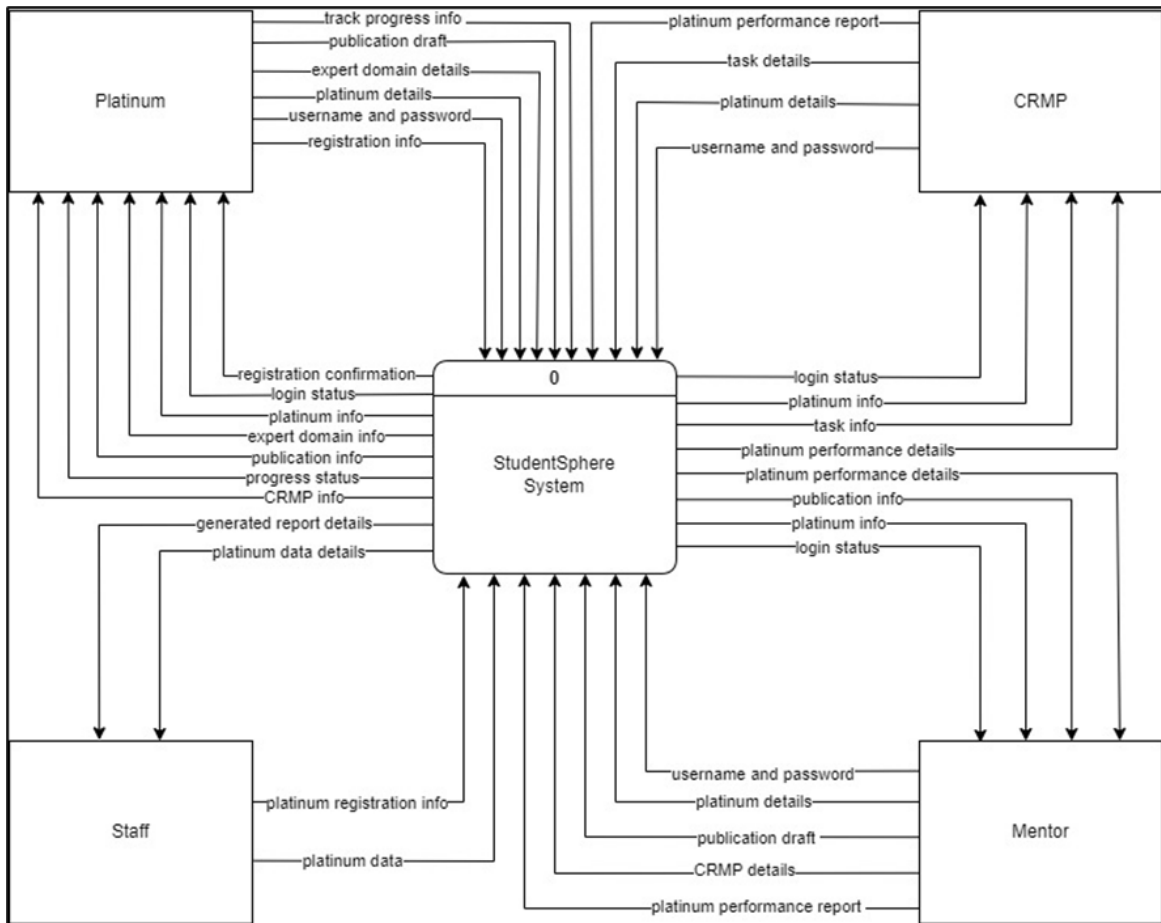
The Generate Report module serves as a critical function for 2M World Sdn. Bhd. by providing valuable insights of reports. The module aids in tracking the overall research landscape by generating reports on student engagement in specific domains and successful paper publications. Exclusive access to this module is granted to Mentors and CRMP with different accessibility coverage. Mentors can generate reports on any available system information compromise from the Module 1 until Module 3 which include Platinum's package, field domain, university, draft count and status. Whereas CRMP reports accessibility are limited, focusing on only Platinum under their care. These reports also serve as decision-making tools, allowing 2M World Sdn. Bhd. to make informed choices about resource allocation, research focus areas, and strategic planning. The function of generating reports is integral to enhancing the efficiency and effectiveness of academic operations, ensuring that 2M World Sdn. Bhd. is well-informed and equipped to support the success of its students and researchers.

1.4 REFERENCES

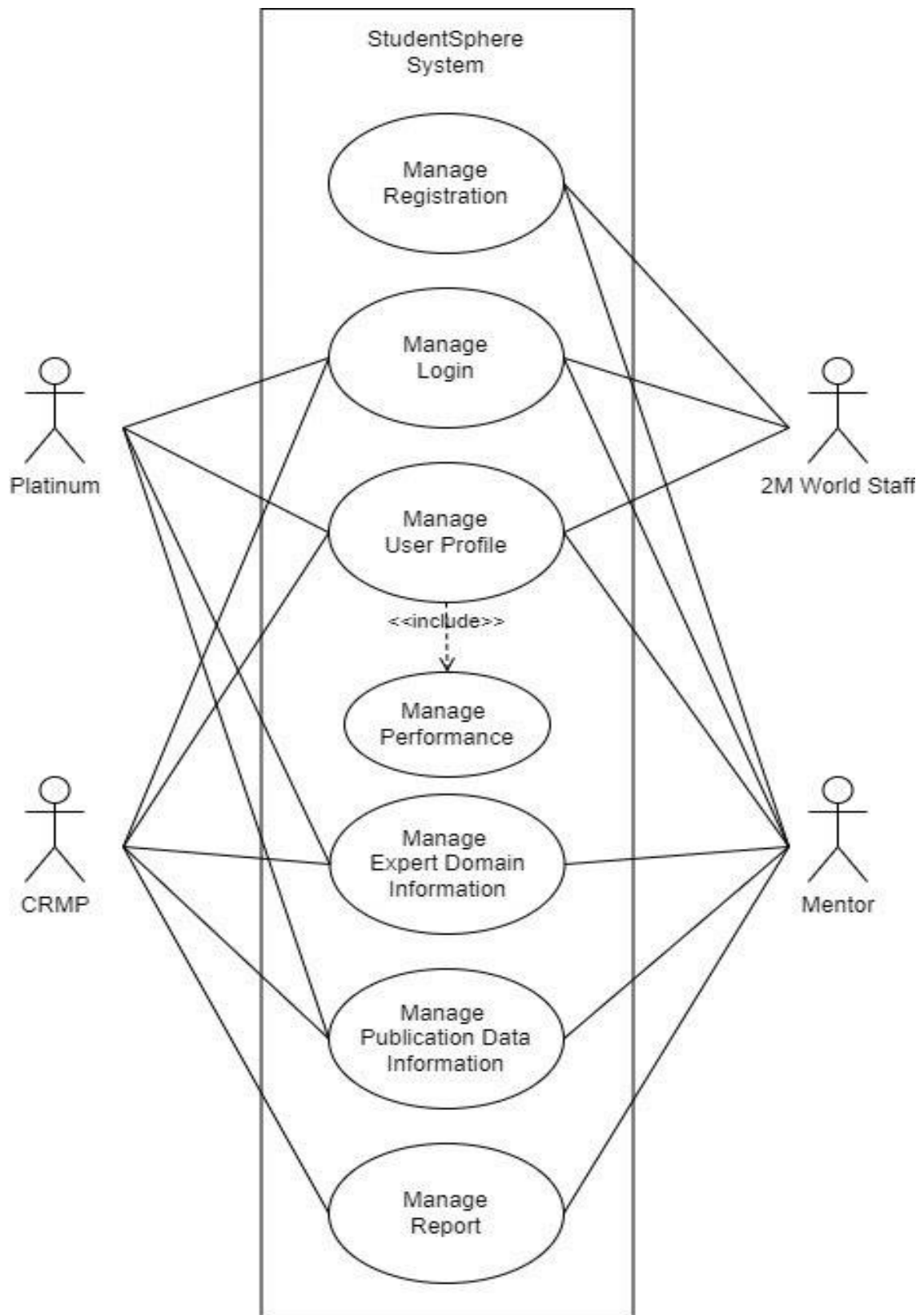
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2. PRODUCT DESCRIPTION

2.1 PRODUCT PERSPECTIVE



2.2 PRODUCT FUNCTION



2.3 USER CHARACTERISTICS

USER OF SYSTEM	EDUCATIONAL LEVEL	EXPERIENCE	TECHNICAL EXPERTISE
Platinum (Registered user)	Should have a masters' or doctoral degree in various of field	Should be pursuing in academic research, coursework, and potential project and teaching assistance	Should master basic computer skills varies depending on the students' field
Staff (2M World Staff)	Should have a bachelor's degree in Administrator field	Should have experience working in an administrative role within an academic or research environment	Should master basic understanding of administrative systems and computer skills
CRMP (Coach Rocket Master Ph.D.)	Should have a masters' or doctoral degree in various of field	Should have experience in publishing research papers in various type of field	Should basic understanding in the terminology, methodology, and various research domains and the technical aspects of publication
Mentor (CEO of 2M World Sdn.Bhd)	Should have a doctoral degree in varies of field	Should have experience in publishing research papers in various types of fields and have experience working as research assistants or postdoctoral researchers.	Should master and proficient in the terminology, methodology, and various research domains and the technical aspects of publication

3. SPECIFIC REQUIREMENTS (SOFTWARE PRODUCT FEATURES)

3.1 Manage Expert Domain

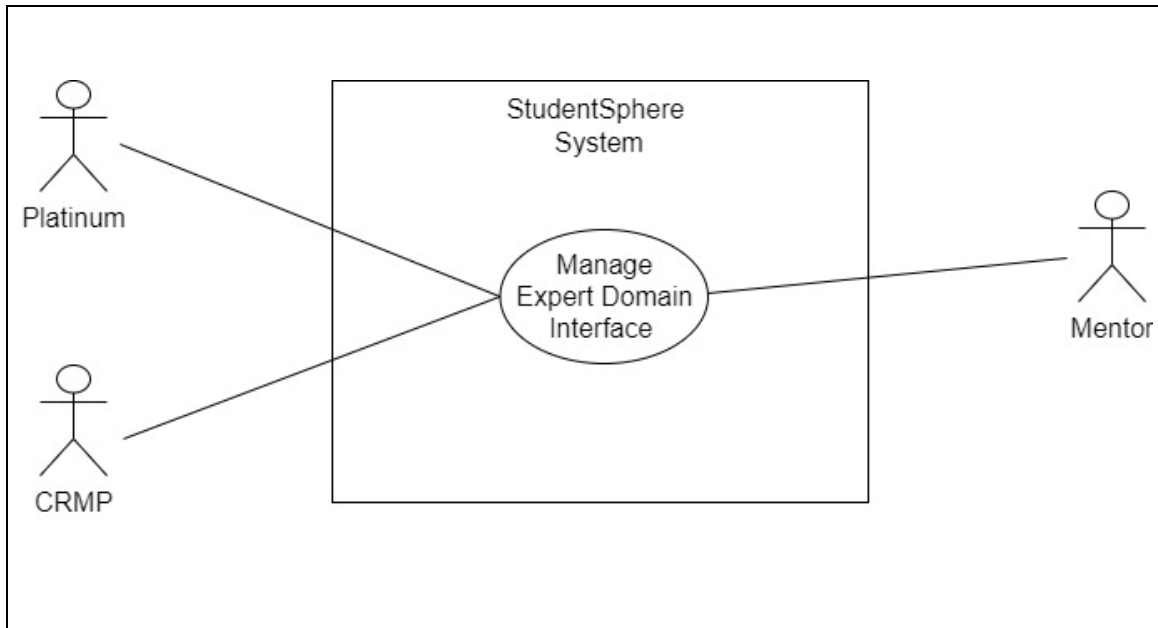


Figure 3.1 : Use Case Manage Expert Domain

3.1.1 Manage Expert Domain Use Case Description

Table 3.1.1: Use Case Description Manage Expert Domain

Use Case ID	UC001-SSP-2023-400
Brief Description	This use case involves the Platinum, CRMP and Mentor users. Platinum, CRMP and Mentor users can search list of expert domain and view the details of the expert. Furthermore, for the Platinum users have the privilege to input details of expert domain engaged including their name, phone number, email, field of expertization, title of publication and upload expert's publication. Additionally, Platinum users have the capability to add new expert domain or delete existing expert domain within the system
Actor	Platinum, CRMP and Mentor
Pre-Conditions	Platinum, CRMP and Mentor have login to the system

Basic Flow	<p>Platinum</p> <ol style="list-style-type: none">1. The use case begins when Platinum users choose expert domain at the left side of the dashboard's StudentSphere system.2. It will appear current expert domain list page which is the lists are what Platinum users have been upload.3. The platinum users are able to :<ol style="list-style-type: none">a) Add new expert domain [A1 : Add new expert domain RQ-SSP-2023-401]b) Edit expert domain from expert list [A2 : Edit expert domain RQ-SSP-2023-402]c) Delete expert domain from expert domain lists [A3 : Delete expert domain RQ-SSP-2023-403]d) Search on expert from the expert domain lists [A4 : Search an expert domain RQ-SSP-2023-404]e) More info to view details about expert domain [A5: More info RQ-SSP-2023-405]4. The system will show the results based on the action that platinum users have chosen [RQ-SSP-2023-406]5. The use case end. <p>CRMP</p> <ol style="list-style-type: none">1. The use case begins when CRMP users choose expert domain at the left side of the dashboard's StudentSphere system.2. It will appear current expert domain list page which is the lists are what Platinum users have been upload.3. The CRMP users click on these button :
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	<p>f) Search on expert from the expert domain lists [A4 : Search an expert domain RQ-SSP-2023-404]</p> <p>g) More info to view details about expert domain [A5 : More info RQ-SSP-2023-405]</p> <p>4. The system will show the results based on the action that CRMP users have chosen [RQ-SSP-2023-406]</p> <p>5. The use case end.</p> <p>Mentor</p> <p>1. The use case begins when Mentor users choose expert domain at the left side of the dashboard's StudentSphere system.</p> <p>2. It will appear current expert domain list page which is the lists are what Platinum users have been upload.</p> <p>3. The Mentor users click on these button :</p> <p>h) Search on expert from the expert domain lists [A4 : Search an expert domain RQ-SSP-2023-404]</p> <p>i) More info to view details about expert domain [A5 : More info RQ-SSP-2023-405]</p> <p>6. 4. The system will show the results based on the action that mentor users have chosen [RQ-SSP-2023-406]</p> <p>5. The use case end.</p>
Alternative Flow	<p>A1 : Add New Expert Domain [RQ-SSP-2023-401]</p> <p>1. Platinum insert expert name, phone number, email, field of expertization, title of publication and publication.</p>

	<ol style="list-style-type: none">2. Platinum click on <<Submit>> button once finish inserting the details [E1 : Limit Reached Expert Domain RQ-SSP-2023-407]3. The expert details have been upload and save4. The use case continue to step number 4 (Platinum) in basic flow <p>A2 : Edit Expert Domain [RQ-SSP-2023-402]</p> <ol style="list-style-type: none">1. Platinum click <<Edit>> button from the expert domain list2. Platinum choose which expert domain from expert domain list that the platinum want to edit3. Platinum <<Save>> button to confirm their update4. The use case continue to step number 4 (Platinum) in basic flow. <p>A3 : Delete Expert Domain [RQ-SSP-2023-403]</p> <ol style="list-style-type: none">1. Platinum click the <<Delete>> button.2. Platinum choose which expert domain from expert domain list that the platinum want to delete.3. The system will ask the Platinum to confirm the deletion of expert domain.4. Platinum click <<Confirm>> button [E2 : Cancel Delete Expert Domain RQ-SSP-2023-408]5. The use case continue to step number 4 (Platinum) in basic flow. <p>A4 : Search Expert Domain [RQ-SSP-2023-404]</p> <ol style="list-style-type: none">1. User click the <<Search on expert>> panel and insert keyword related to the their needed of the expert.2. The system will show the expert domain that matches with the keyword.
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	<p>3. The use case continue to step number 4 for Platinum, CRMP and Mentor in basic flow.</p> <p>A5 : View Expert Domain [RQ-SSP-2023-405]</p> <ol style="list-style-type: none">1. User choose the expert domain that user want to view2. User click <<MORE INFO>> button from the expert domain box in the lists.3. The system will present the details about the expert domain that has been selected.4. User click <<CLOSE>> button to return to the expert domain list page.5. The use case continue to step number 4 for Platinum. CRMP and Mentor in basic flow.
Exception Flow	<p>E1 : Limit Reached Expert Domain [RQ-SSP-2023-407]</p> <ol style="list-style-type: none">1. Platinum click <<Submit>> button2. The system display error add new expert3. The use case continue to step number 4 alternative flow A1. <p>E2 : Cancel Delete Expert Domain [RQ-SSP-2023-408]</p> <ol style="list-style-type: none">1. Platinum click <<CANCEL>> button from the chosen expert domain2. The system cancel the process3. The use case continue to step number 5 alternative flow A2.
Post-Conditions	The expert lists are created and updated.
Rules	The input information must be valid.
Constraints	The Platinum user can add up to 21 experts.

3.1.2 Manage Expert Domain Sequence Diagram

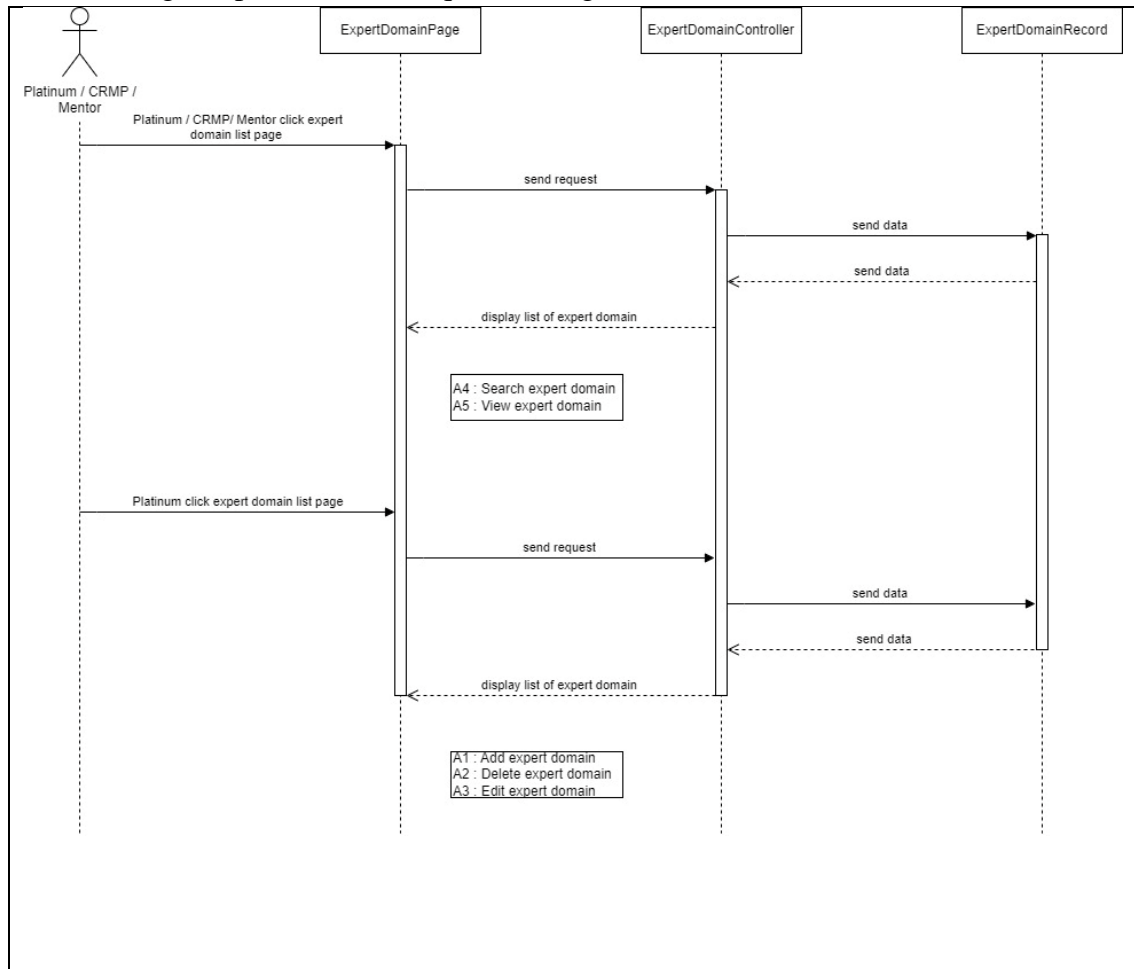


Figure 3.2 Basic Flow Manage Expert Domain

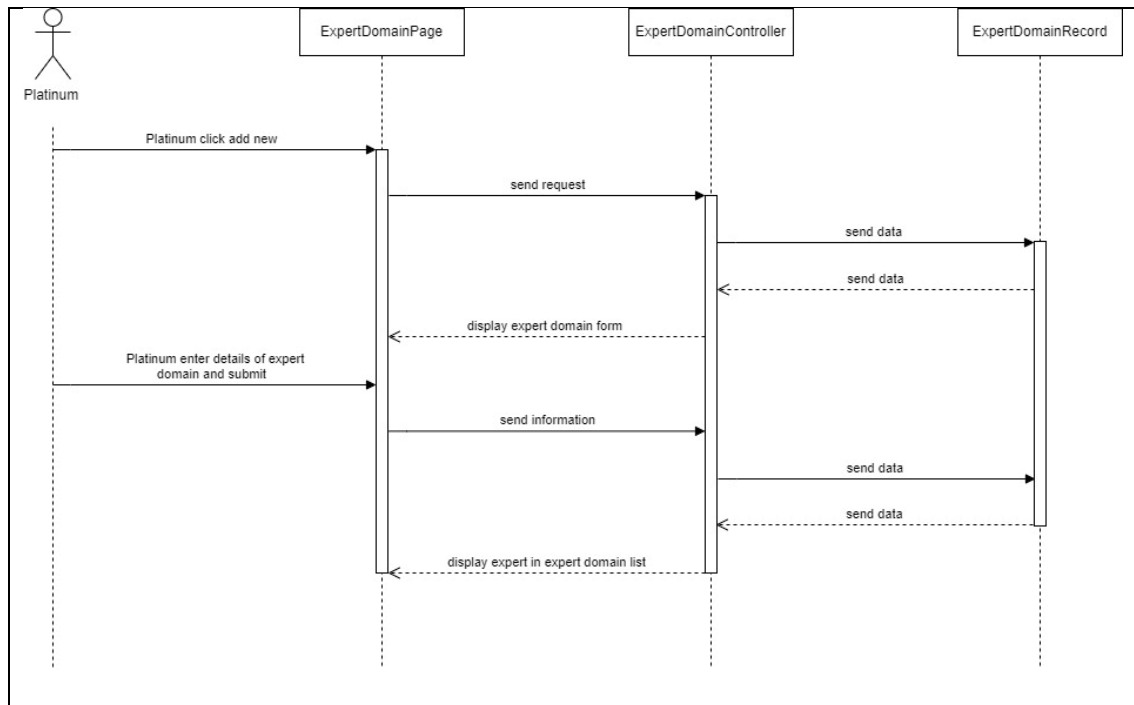


Figure 3.3 Alternative Flow A1 : Add new expert domain

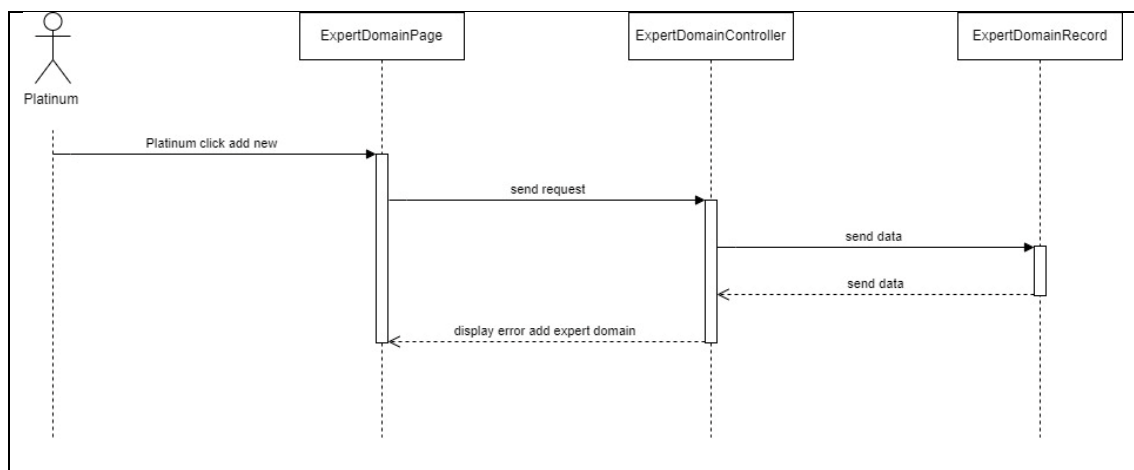


Figure 3.4 Exception flow E1 : Limit reached expert domain

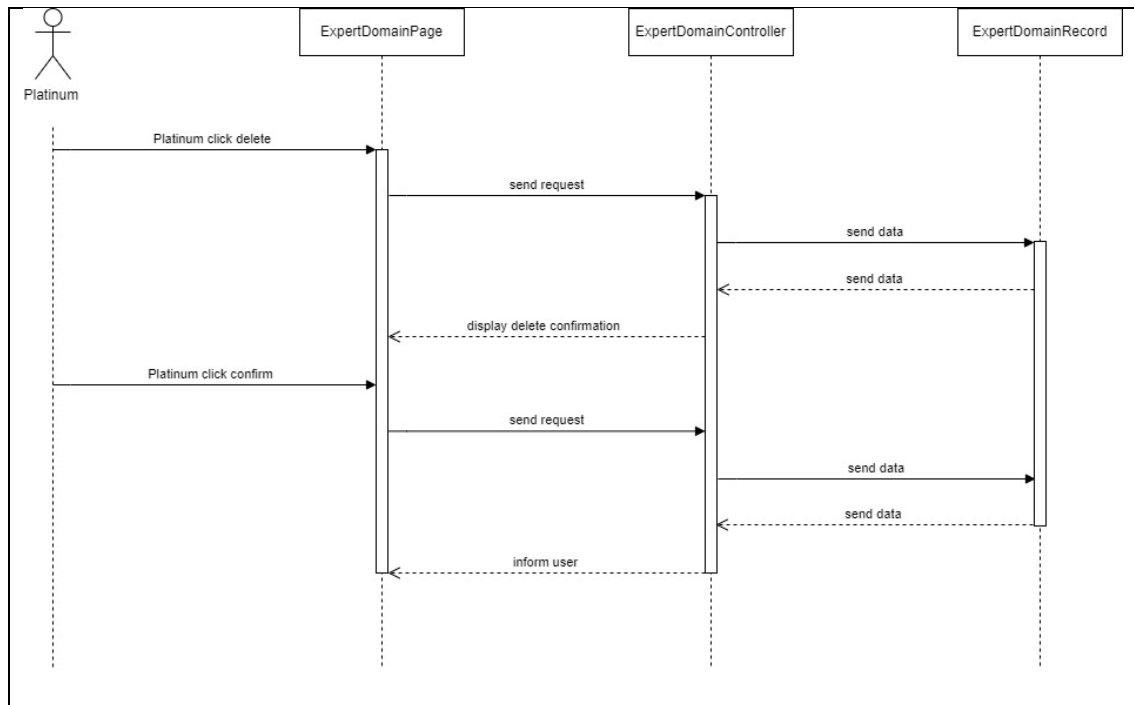


Figure 3.5 Alternative flow A2 : Delete expert domain

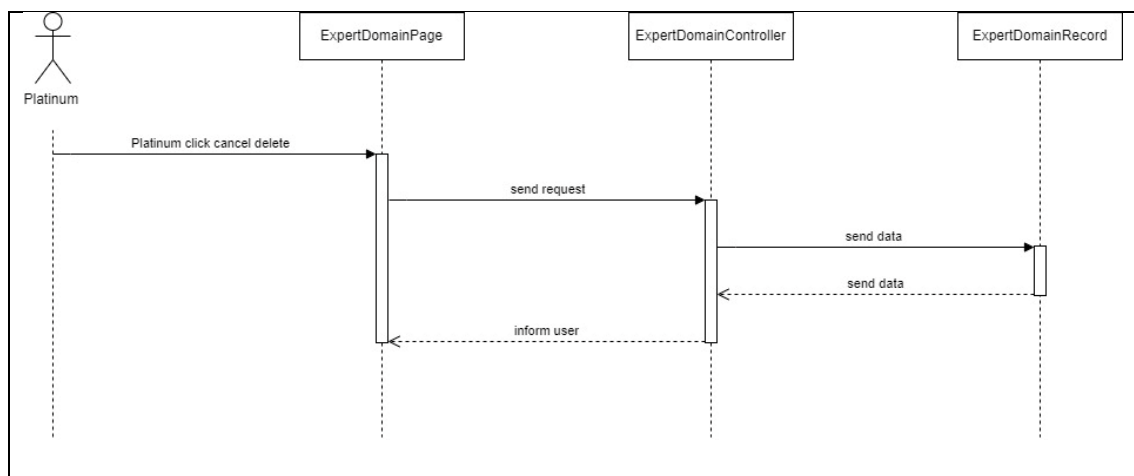


Figure 3.6 Exception Flow E2 : Cancel delete expert domain

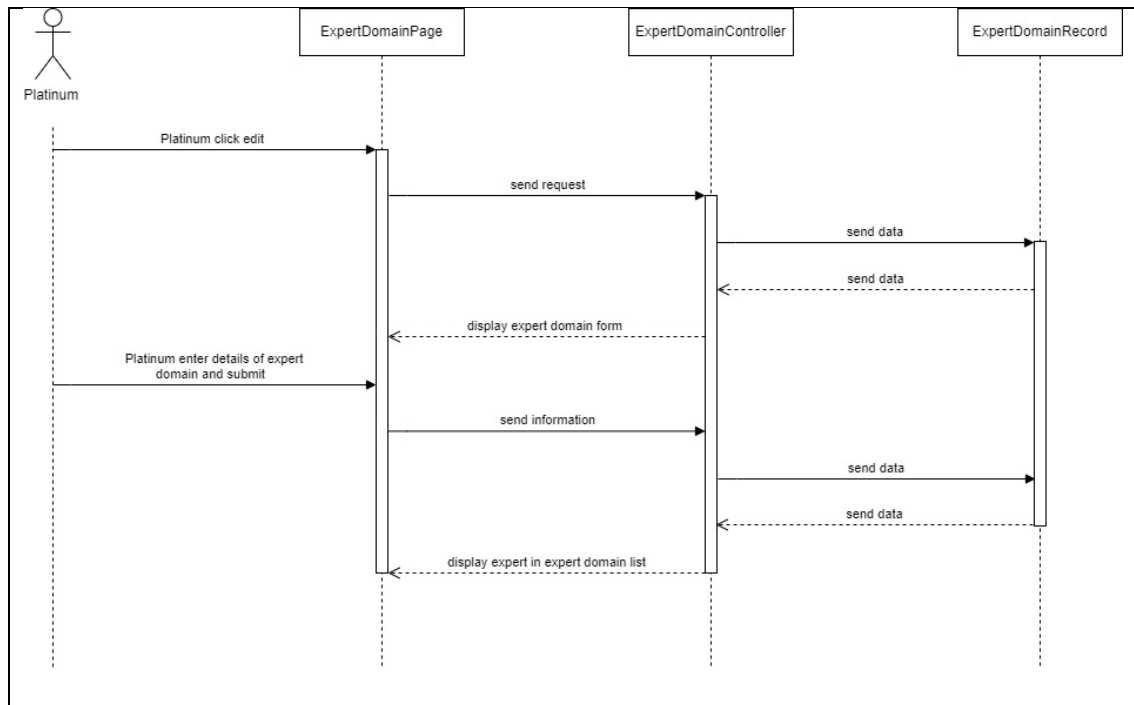


Figure 3.7 Alternative flow A3 : Edit expert domain

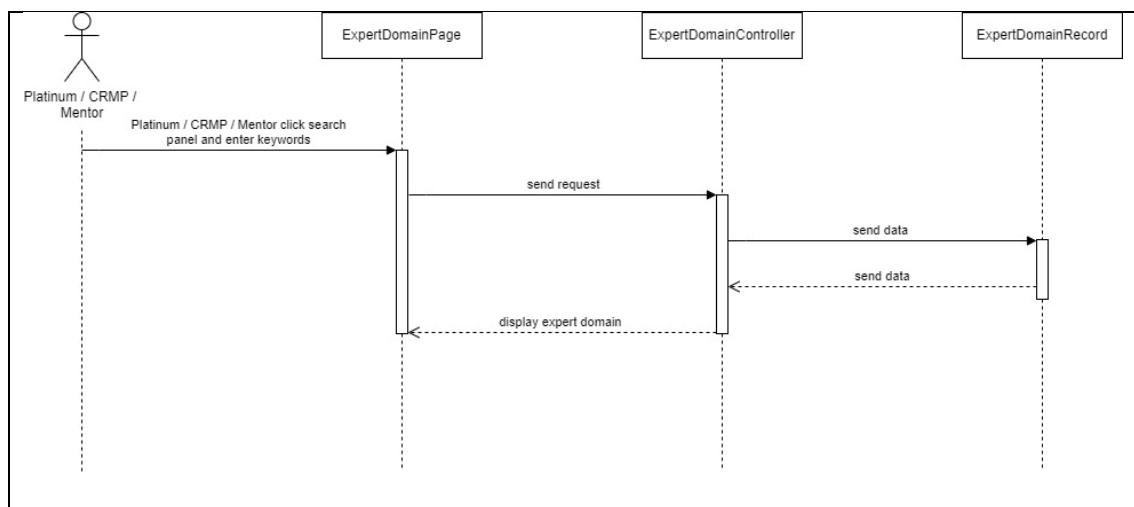


Figure 3.8 Alternative flow A4 : Search Expert Domain

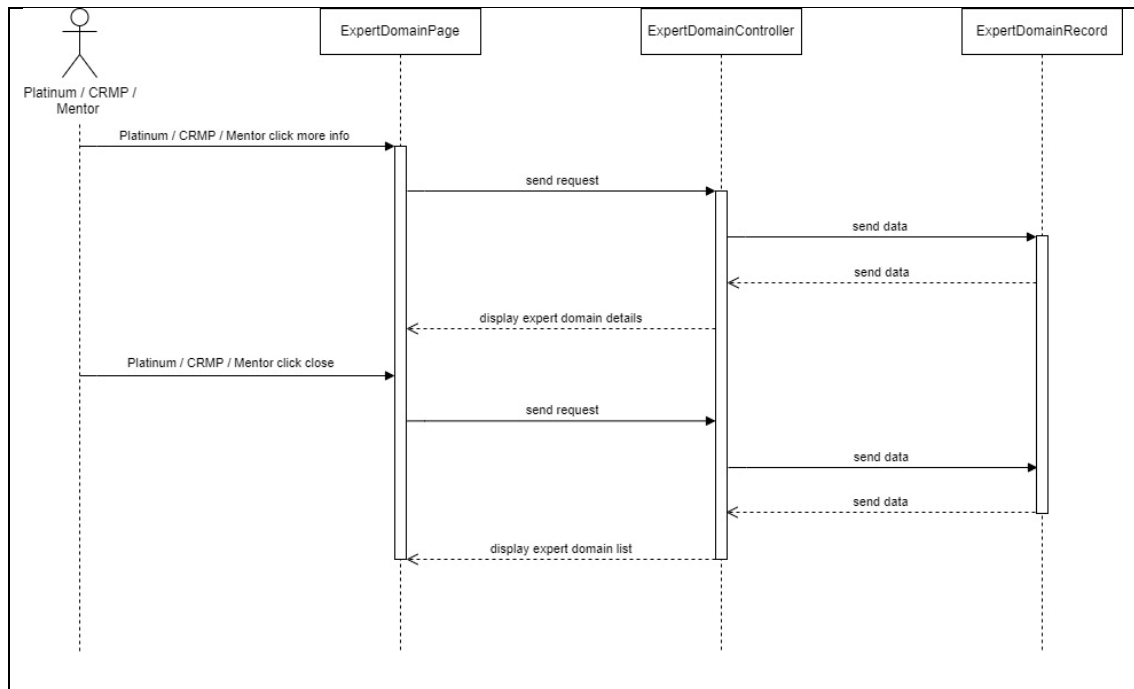


Figure 3.9 Alternative flow A5 : View expert domain

3.1.3 Manage Expert Domain Interface

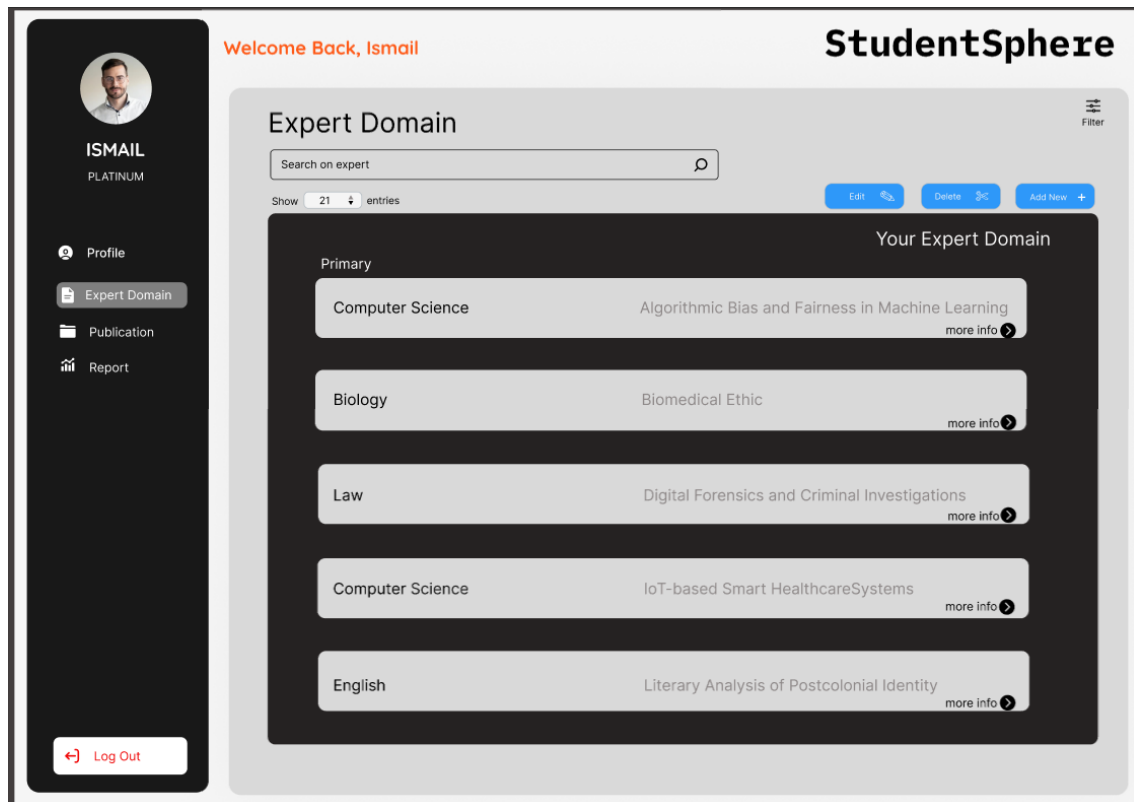


Figure 3.10 : Main page user interface (platinum)

The screenshot shows the 'Expert Domain Details' form in the StudentSphere application. The user is ISMAIL PLATINUM. The form has a 'Cancel' button at the top right and a 'Submit' button at the bottom right. The input fields are:

- Name: Enter expert's name
- Phone Number: Enter expert's phone number
- Email: Enter expert's email
- Field of Expertization: Enter expert's field of expertization
- Title of Publication: Enter expert's title of publication
- Publication: Enter expert's publication

Figure 3.11 : Add / Edit expert domain user interface (platinum)

The screenshot shows the 'Expert Domain Details' form in the StudentSphere application. The user is ISMAIL PLATINUM. A modal dialog box is displayed in the center of the form with the message "Limit Reached To Enter Expert Domain !" and a "Cancel" button. The input fields are:

- Name: Enter expert's name
- Phone Number: Enter expert's phone number
- Email: Enter expert's email
- Field of Expertization: Enter expert's field of expertization
- Title of Publication: Enter expert's title of publication
- Publication: Enter expert's publication

Figure 3.12 : Limit reached to enter expert domain user interface (platinum)

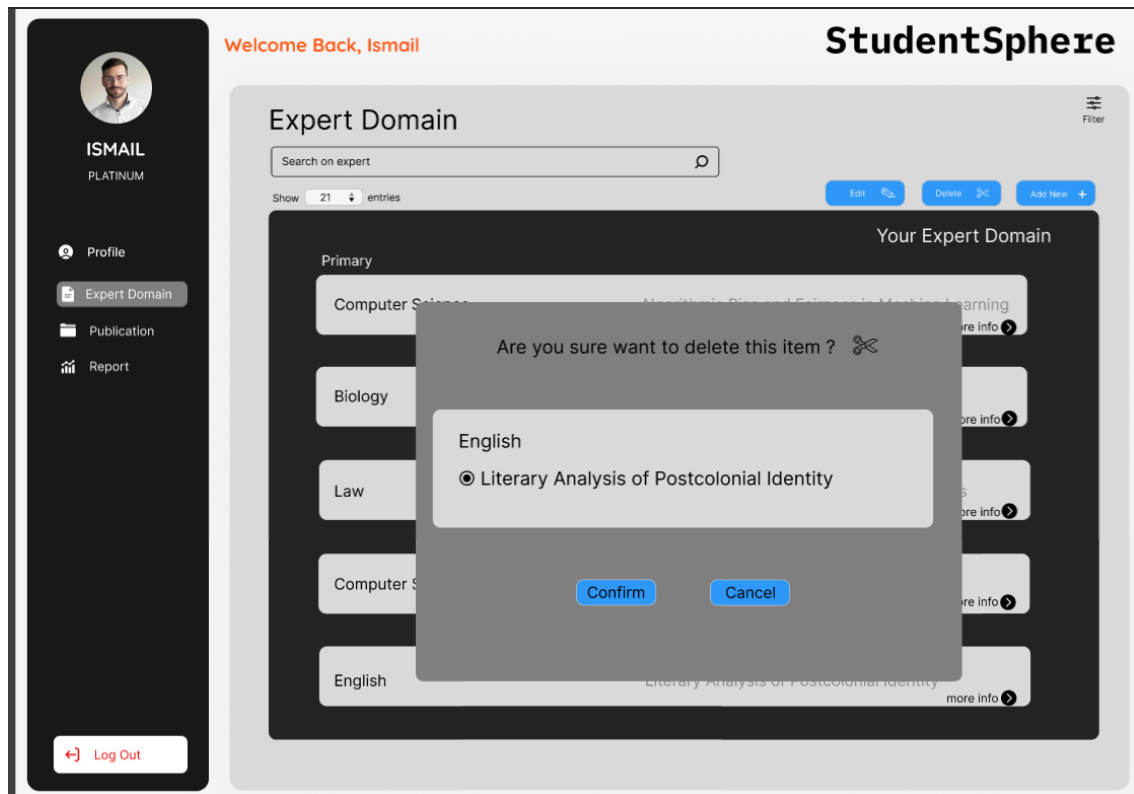


Figure 3.13 : Delete expert domain user interface (platinum)

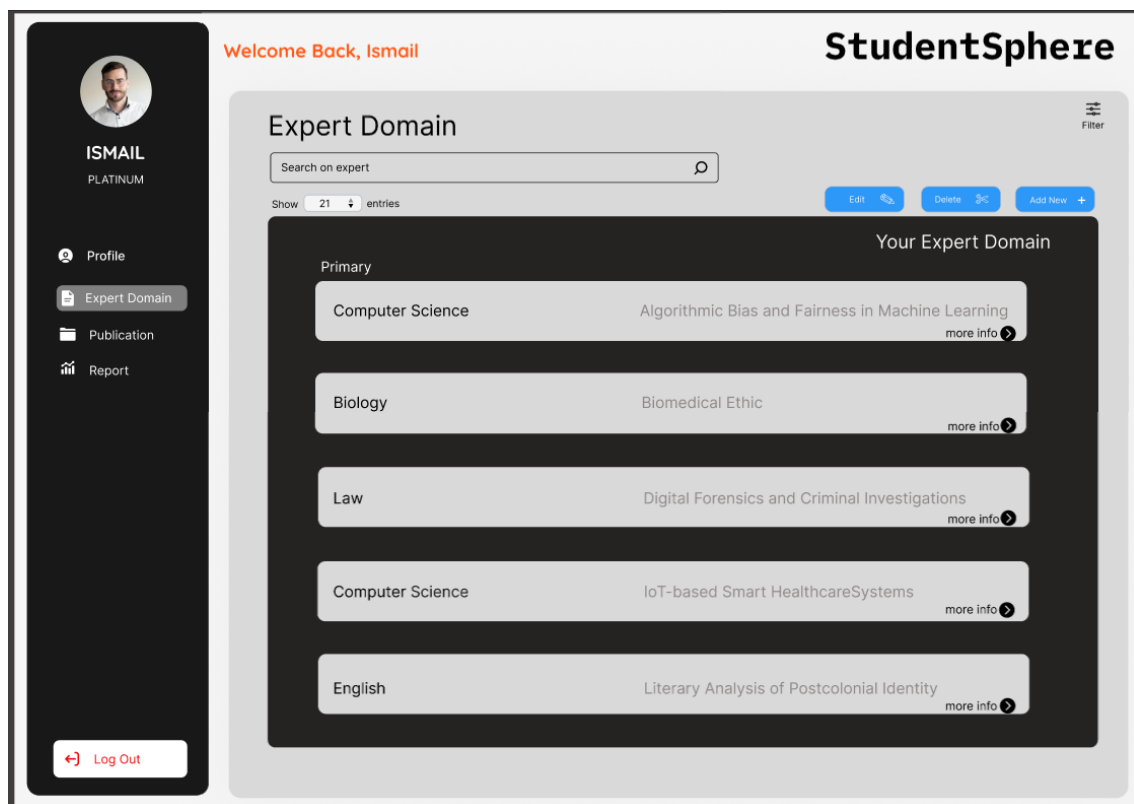


Figure 3.14 : Search on expert domain lists user interface (platinum)

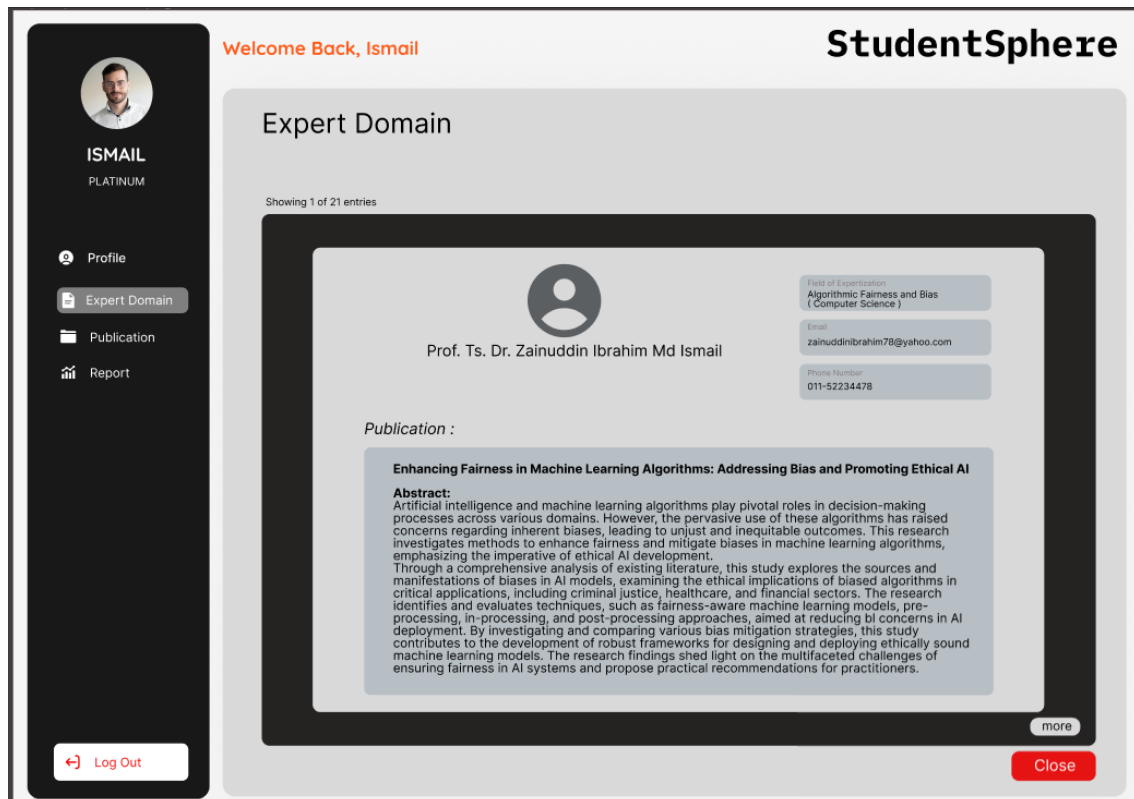


Figure 3.15 : View expert domain user interface (platinum)

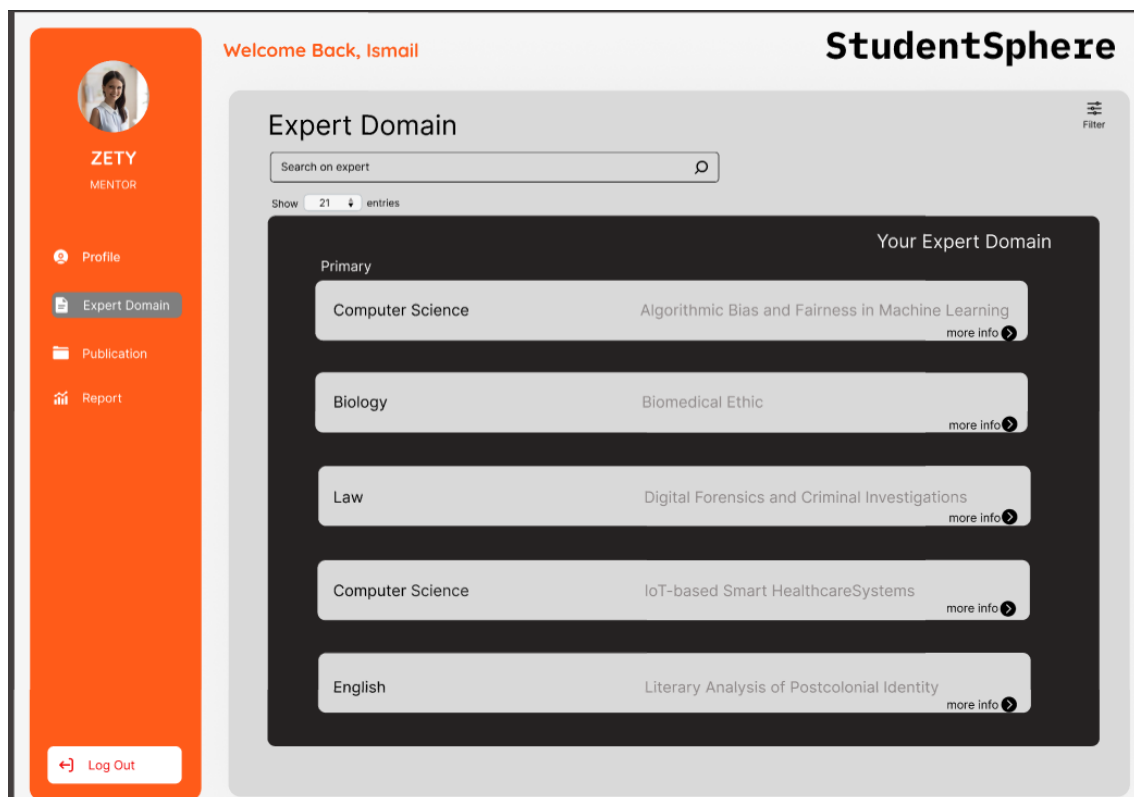


Figure 3.16 : Search on expert domain lists user interface (mentor)

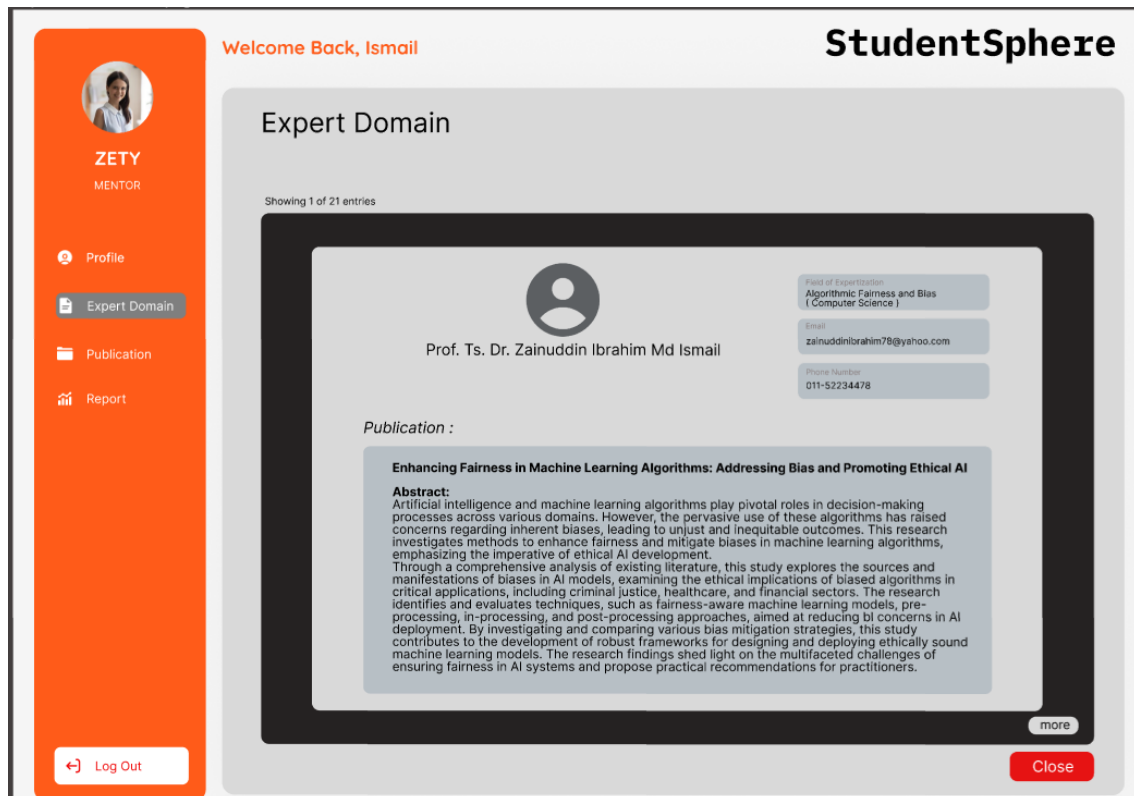


Figure 3.17 : View expert domain user interface (mentor)

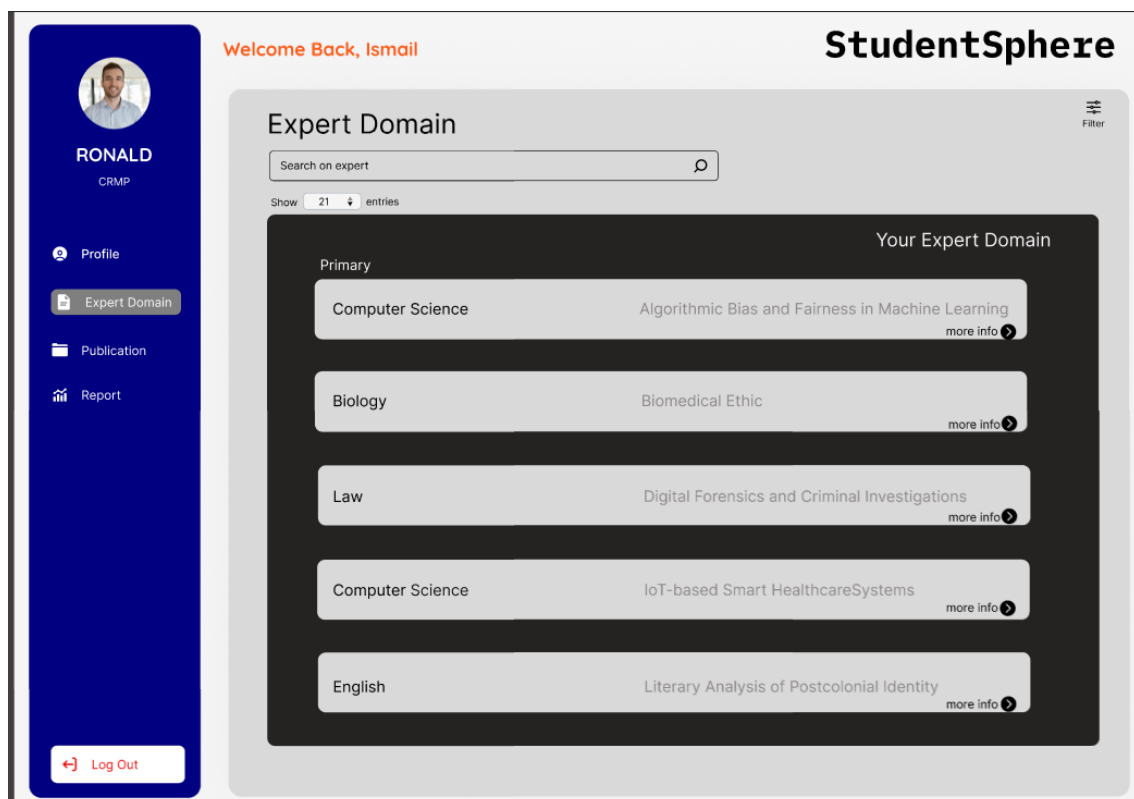


Figure 3.18 : Search on expert domain lists user interface (CRMP)

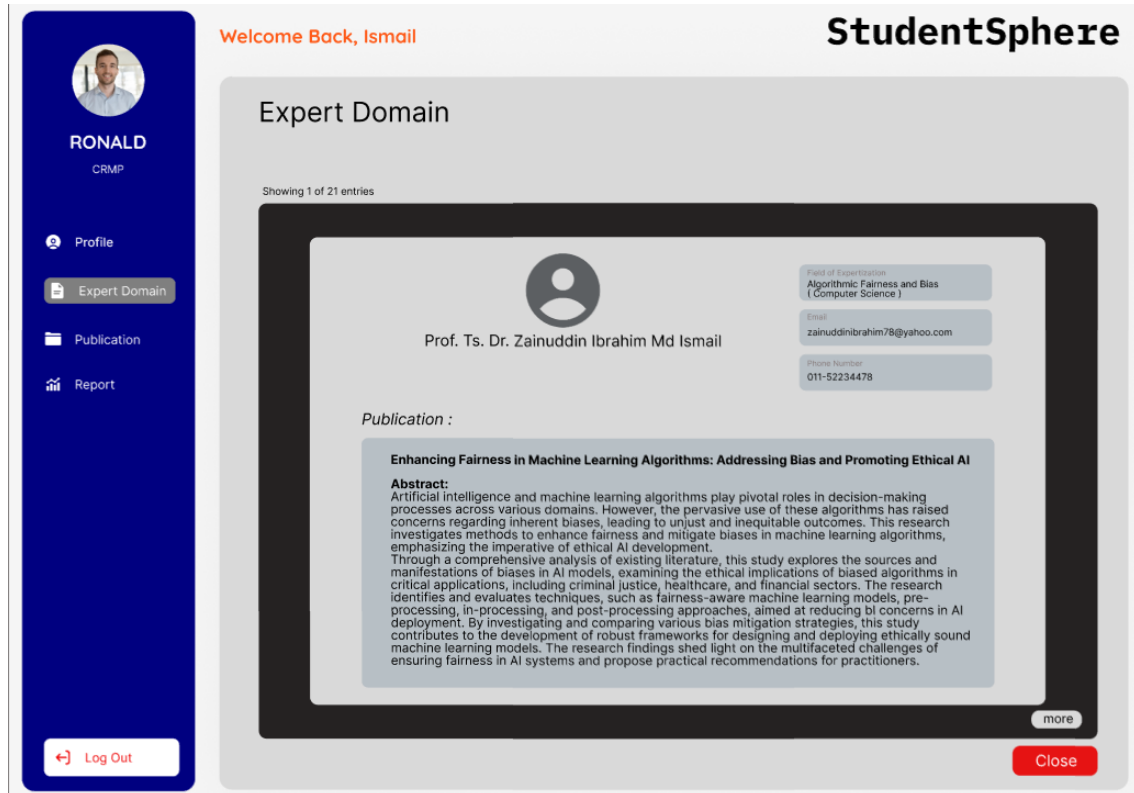


Figure 3.19 : View expert domain user interface (CRMP)

3.1.3 User Interface Description Manage Expert Domain Information

User Interface Name	Description
Main page user interface	All users will get an overview of the expert domain information. platinum will have the option to add, delete, edit search and view the expert's detailed information. CRMP and Mentor only have the option to search and view the expert's detailed information.
Add/edit expert domain user interface	Platinum need to fill in expert details including their name, phone number, email, field of expertization, title of publication and upload expert's publication.
Limit reached to enter expert domain user interface	Platinum will get display of limit reached to enter expert domain if the list already have 21 experts.
Delete expert domain user interface	Platinum will choose expert domain from the list that they need to delete and the system will display

	whether platinum want to confirm or cancel the deletion process.
Search on expert domain lists user interface	Platinum, CRMP and Mentor can search their needed expert by enter keywords at search on expert panel
View expert domain user interface	Platinum, CRMP and Mentor can view more details about expert domain.

4. EXTERNAL INTERFACE REQUIREMENTS

4.1 USER INTERFACES

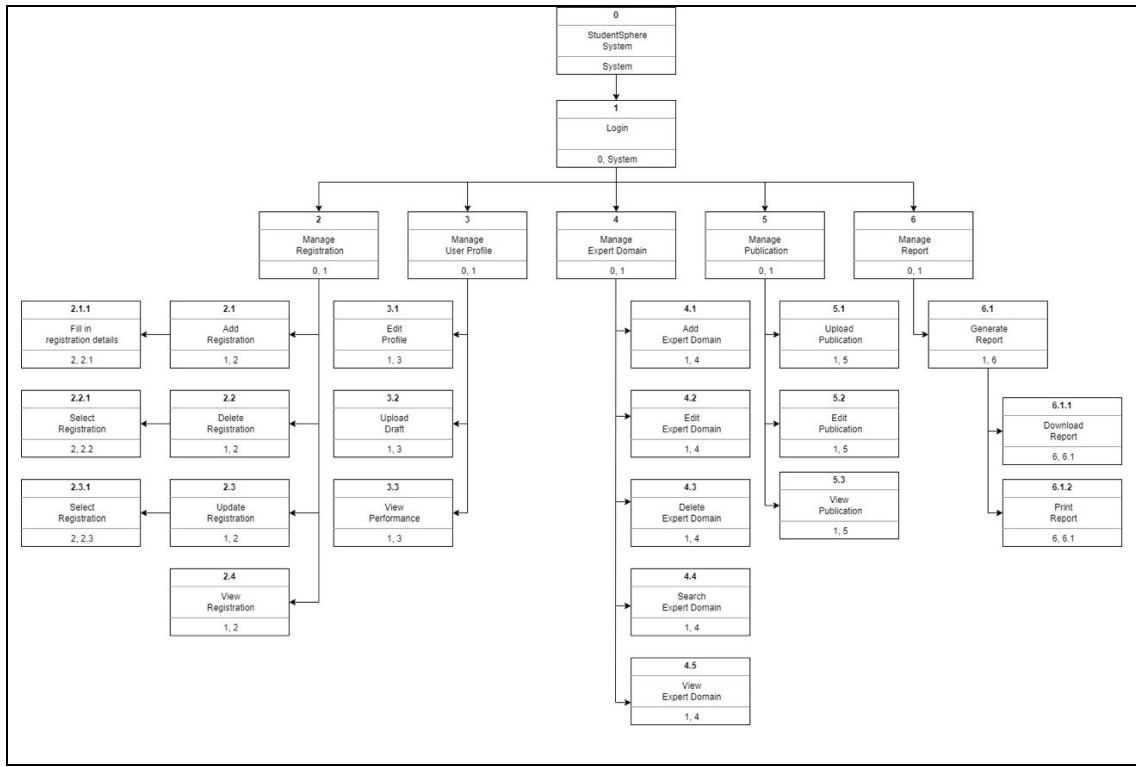


Figure 4.1 Dialog Diagram for StudentSphere System

4.2 HARDWARE INTERFACES

Table 4.1 Hardware Interfaces for StudentSphere System

Hardware	Hardware interface and Descriptions
Not Applicable	Not Applicable

4.3 SOFTWARE INTERFACES

Table 4.2 Software Interfaces for StudentSphere System

Application	API Interface and Descriptions
Not Applicable	Not Applicable

5. REQUIREMENT TRACEABILITY

Table 5.1 Requirement Traceability for Manage Expert Domain

Requirement ID	Description	Interface ID
RQ-SSP-2023-401	<<Add new>> button to add new expert domain which is needed to fill in form	Refer figure 3.10 and figure 3.11
RQ-SSP-2023-402	<<Edit>> button to edit expert domain	Refer figure 3.10 and figure 3.11
RQ-SSP-2023-403	<<Delete>> button to select expert domain from the list to be deleted	Refer figure 3.13
RQ-SSP-2023-404	<<Search on expert>> panel to search the expert domain by enter keywords	Refer figure 3.14, figure 3.16 and figure 3.18
RQ-SSP-2023-405	<<More info>> button to view expert domain details	Refer figure 3.15, figure 3.17 and figure 3.19

6. ACRONYMS AND ABBREVIATION

Table 6.1 Acronyms And Abbreviation

ACRONYMS ABBREVIATION	DESCRIPTION
SRS	Software Requirement Specification
SSP	StudentSphere System
TFS	TechFour Solution
V	Version
UC	Use Case
RQ	Requirement within Use Case
CRMP	Coach Rocket Master Ph.D.