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**COMSATS University Islamabad (CUI)**

Software Requirement Specification  
(SRS DOCUMENT)

for

**Smart Construction Manager**  
Version 1.0

***By***

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*Bachelor of Science in Computer Science (2018-2022)*

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason for Changes** | **Version** |
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Application Evaluation History

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| --- | --- |
| **Comments (by committee)**  **\*include the ones given at scope time both in doc and presentation** | **Action Taken** |
| ‘Modules are clear and Well defined. Can Proceed for next step’ – Dr Basit Raza | N/A |
| ‘Project idea is ok. All the modules are properly explained ‘– Mr. Zulfiqar Ali | N/A |
| ‘Add some major modules other than management systems’ – Tehseen Riaz Abbasi | Modules Added |
| ‘Replace the “targeted project” with your project name in tables’ caption.’ – Mr. Tehseen Riaz Abbasi | “targeted project” replaced with project name in tables’ caption. |
| ‘There is a difference between functionality and advantages, you have written too functionality of the system in advantages section, please correct it.’ – Mr. Tehseen Riaz Abbasi | Functionality and advantages section updated |
| ‘The modules are not written with logical and technical flow, rather students tried to add modules without proper flow, understanding the system needs and boundaries.’ – Mr. Tehseen Riaz Abbasi | Modules added with the flow |
| ‘Modules needs to refine, redefine, and improved.’ – Mr. Tehseen Riaz Abbasi | Modules refined, redefined, and improved. |
| ‘Revise concept section. Explain it.’ – Mr. Tehseen Riaz Abbasi | Concept section revised. |
| ‘Milestones for the Gantt chart needs revision, so revise your Gantt chart. Format is also not correct.’ – Mr. Tehseen Riaz Abbasi | Gantt Chart revised |
| ‘Mockup images quality is not good, redesign them.’ – Mr. Tehseen Riaz Abbasi | Mockup images quality improved and redesigned. |
| ‘The screenshot of plagiarism report is missing.’ – Mr. Tehseen Riaz Abbasi | Plagiarism report added |
| ‘Limited tabular use case Add more tabular use cases.’ – Mr. Tehseen Riaz Abbasi | Tabular use cases added. |
| ‘Revise the tabular use cases and FR in proper format with all required fields to be filled as guided w.r.t to updated modules. – Mr. Tehseen Riaz Abbasi | FR tables revised |
| ‘Revise and quantify the non-functional requirements properly. Add more NFR like scalability etc. – Mr. Tehseen Riaz Abbasi | More NFRs added |
| ‘Milestones for the Gantt chart needs revision, so revise your Gantt chart. Format is also not correct. – Mr. Tehseen Riaz Abbasi | Gantt chart revised |
|  |  |

Supervised by

Dr. Ashfaq Hussain Farooqi

Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Table of Contents**

Revision History i

Application Evaluation History ii

1. Introduction 1

1.1 Purpose 1

1.2 Scope and Modules 1

2. Overall Description 2

2.1 Product Perspective 2

2.2 Operating Environment 2

3. Design and Implementation Constraints 3

4. Requirement Identifying Technique 3

4.1 Use Case Diagram 3

4.2 Use Case Description 8

5. Functional Requirements 109

6. Non-Functional Requirements 191

6.1 Reliability 191

6.2 Usability 191

6.3 Performance 191

6.4 Security 191

6.5 Scalability 192

6.6 Availability 192

6.7 Responsive 192

6.8 Recoverability 192

6.9 Manageability 192

7. External Interface Requirements 192

7.1 User Interfaces 193

7.2 Software Interfaces 195

7.3 Hardware Interfaces 195

7.4 Communication Interfaces 195

8. Project Gantt Chart 195

9. Conclusion 196

10. Appendices 196

11. References 196

12. Plagiarism Report 196

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# Introduction

This is the SRS (Software Requirement Specification) document for our project Smart Construction Manager. The document briefly explains the working and description of the project. The document contains the Use Cases against specified modules. The Functional and Non-Functional requirements are also elicited in the document. The UML diagrams and Class diagrams explain the flow of the application. Moreover, user interfaces describe the working of application for the end user.

## Purpose

Smart Construction Manager is a One Window Solution for the construction process of housing in the state. Keeping in view the incumbent government’s housing and construction policies & packages to minimize the time & effort for the construction process and ensure transparency. This solution also addresses unexpected turn of events in the fiscal policies caused by the global pandemic (COVID-19). It also ensures the safety of people regarding the SOPs. Smart Construction Manager is an all-rounder application addressing basic house construction needs.

## Scope and Modules

System will provide a one window application and act as agent of communication between construction companies, user, and government bodies. The user will provide the required information to the system the system will authenticate the user. User will submit request to respective organization (depending upon the location of project) & The construction company. The authorities and the industries will accept the request. Design and Layout will be sent by user. After review authorities and industries will generate the response.

### Modules

**First module** buys and sell, user can buy land and other construction equipment posted by other users for sale. **Second module** deals with user searching and provides functionality to search by talking. **Third module** is user chatting with other users. **Fourth module** shows user recommendations on home page. **Fifth module** helps user decide the map for construction site. And **sixth module** will be for designing and decorating house with AR. **Seventh module** deals with the user sending application requests to government bodies for various procedures. **Eight module** provides admin portal to government bodies to manage user requests.

# Overall Description

The government organizations such as the development authorities of different cities have introduced the concepts of One-window operations to streamline the working process, our project is providing faster and easier access to this operation.

## Product Perspective

Smart Construction Manager is designed to ease the entire process of construction. The product is an alternate to growing market of construction site. Mostly websites like Zameen.com and Graana.com offer the buy and sell functionality. Smart Construction Manager will help user to communicate with government bodies too.

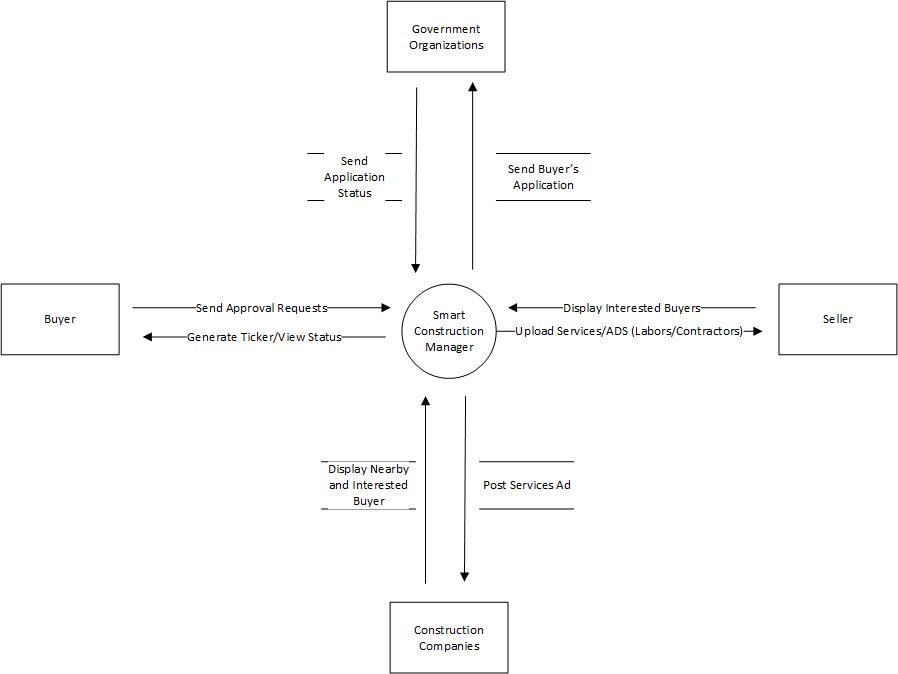


Figure 1: Context Diagram of Targeted Project

## Operating Environment

***OE-1:*** *The System shall operate correctly with the following web browsers: Firefox versions 80 through own wards; Google Chrome (all versions); and Apple Safari versions 10.0 and above.*

***OE-*2:** *The Minimum Smart Phone OS requirement is 6.0 for Android and IOS 9 for iPhones.*

***OE-3:*** *The Application will be available for Residence of Islamabad, Pakistan. In future, we will be upscaling to be used country wide.*

# Design and Implementation Constraints

*CO-1: The system shall use the current corporate standard MongoDB database engine*

*CO-2: The system shall use ExpressJS as Web Backend and ReactJS as Web Frontend Framework*

*CO-3: The system shall use React Native for Smart Phone Development (Android and IOS).*

# Requirement Identifying Technique

The requirements for the project will be gathered using Interviews and online Google Forms.

## Use Case Diagram

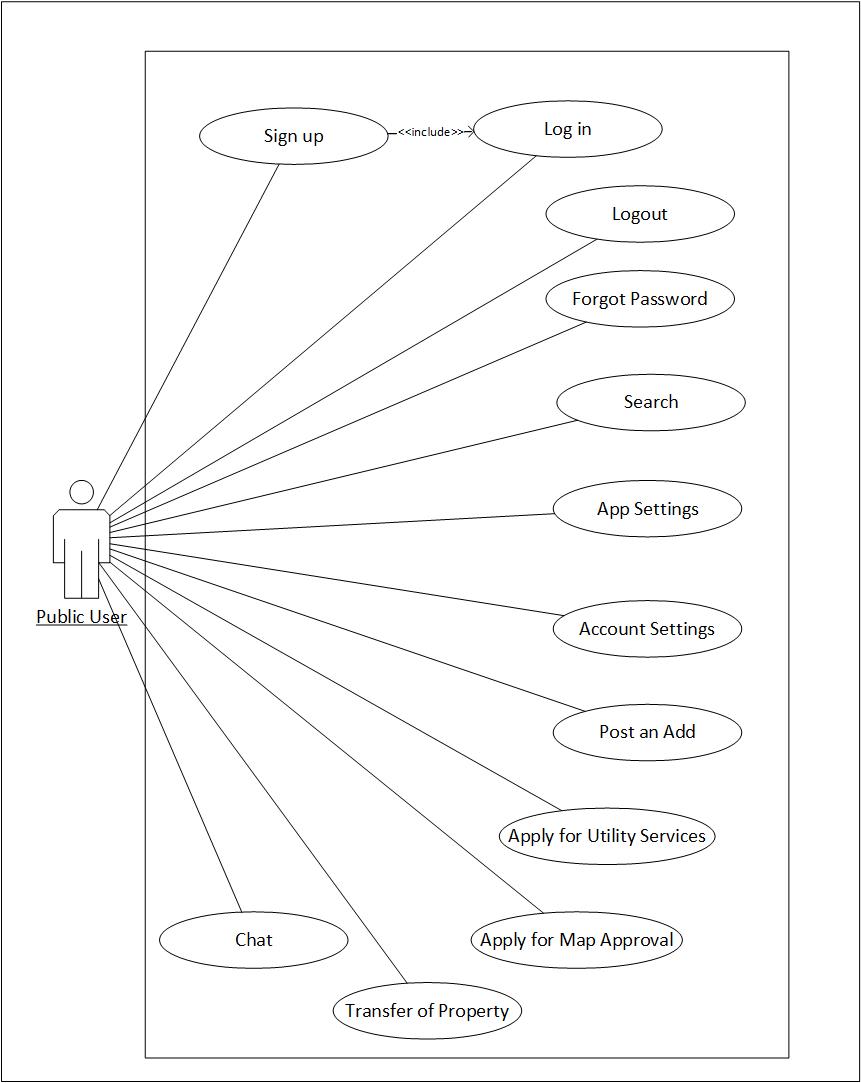


Figure 1: Use Case Diagram Showing Actions of User from Home Screen

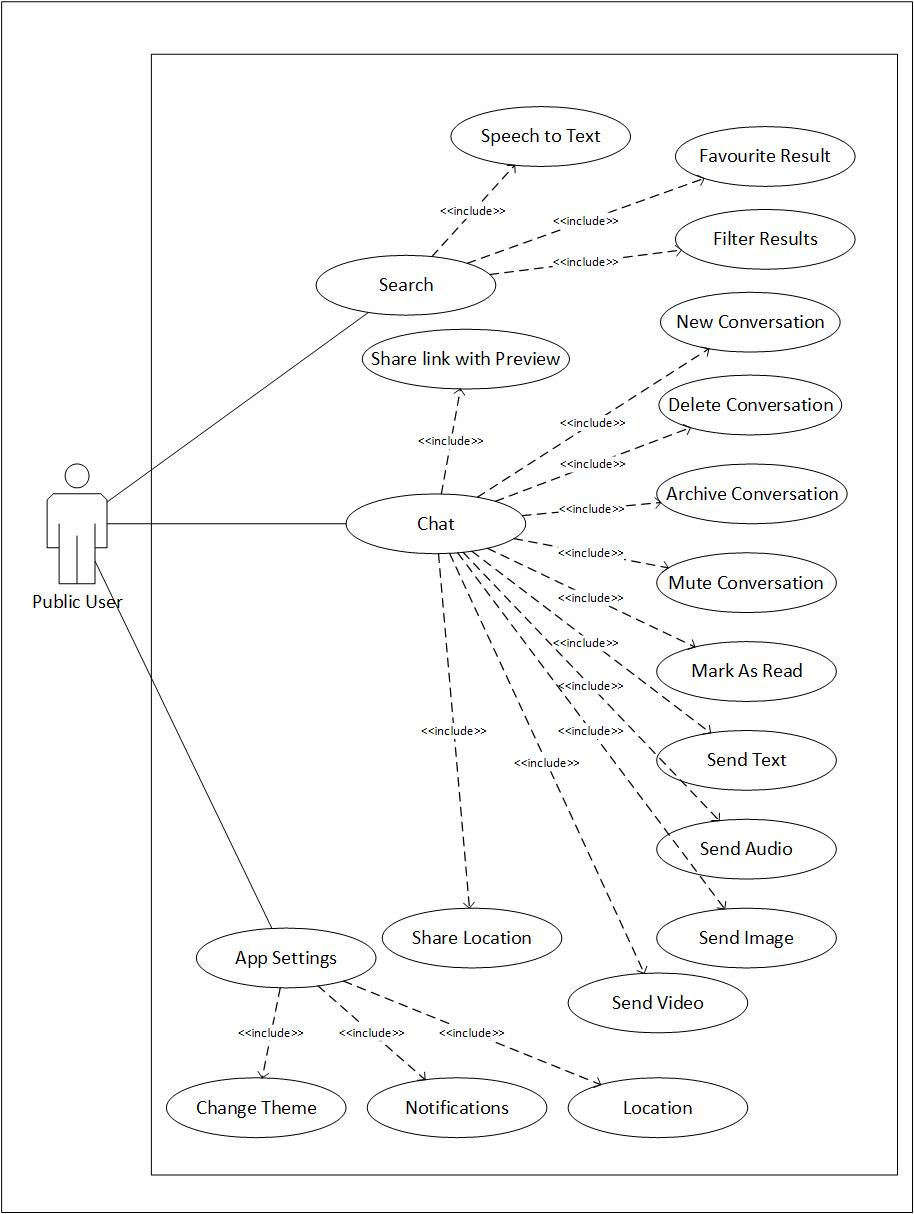


Figure 2: User Interface with Basic App Features

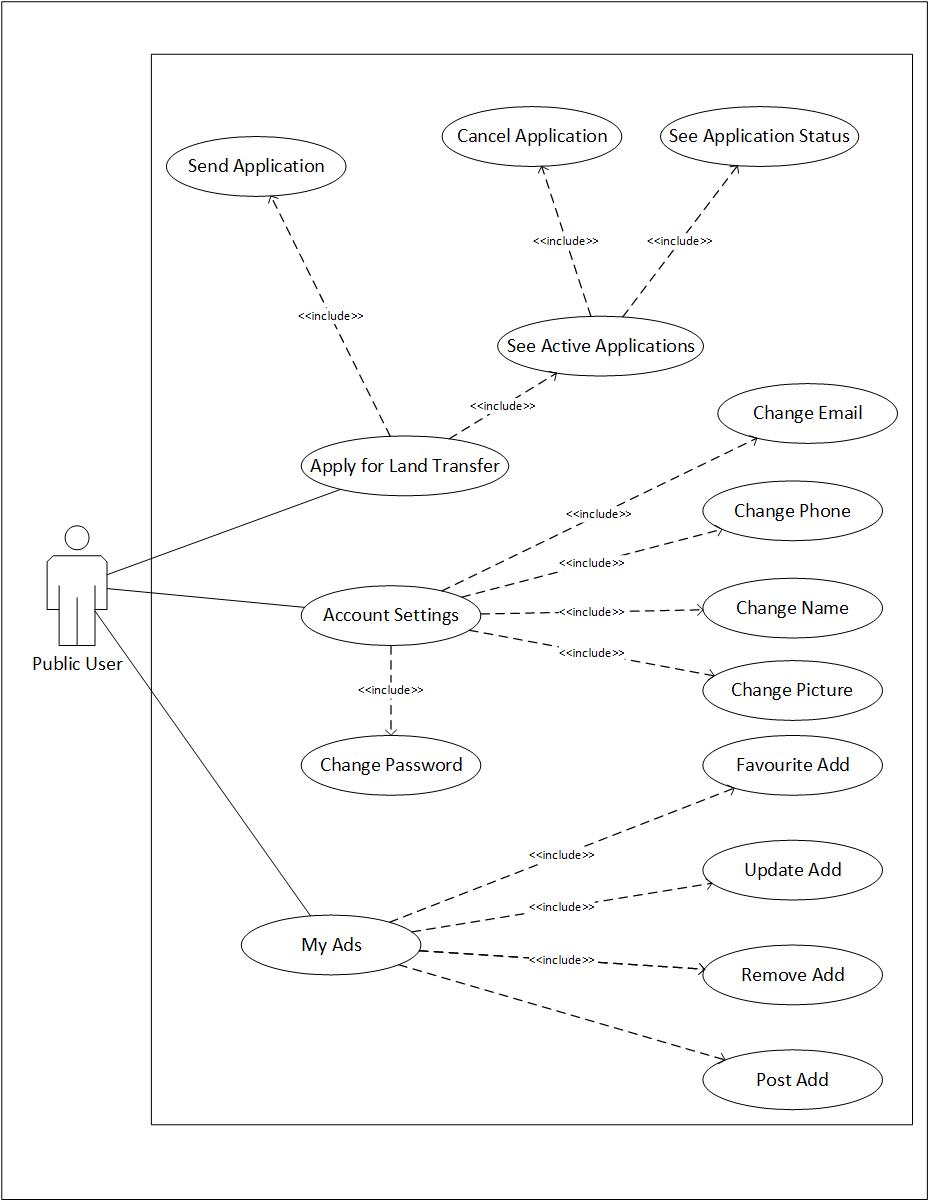


Figure 3: Use Case Diagram Explaining Activities of User

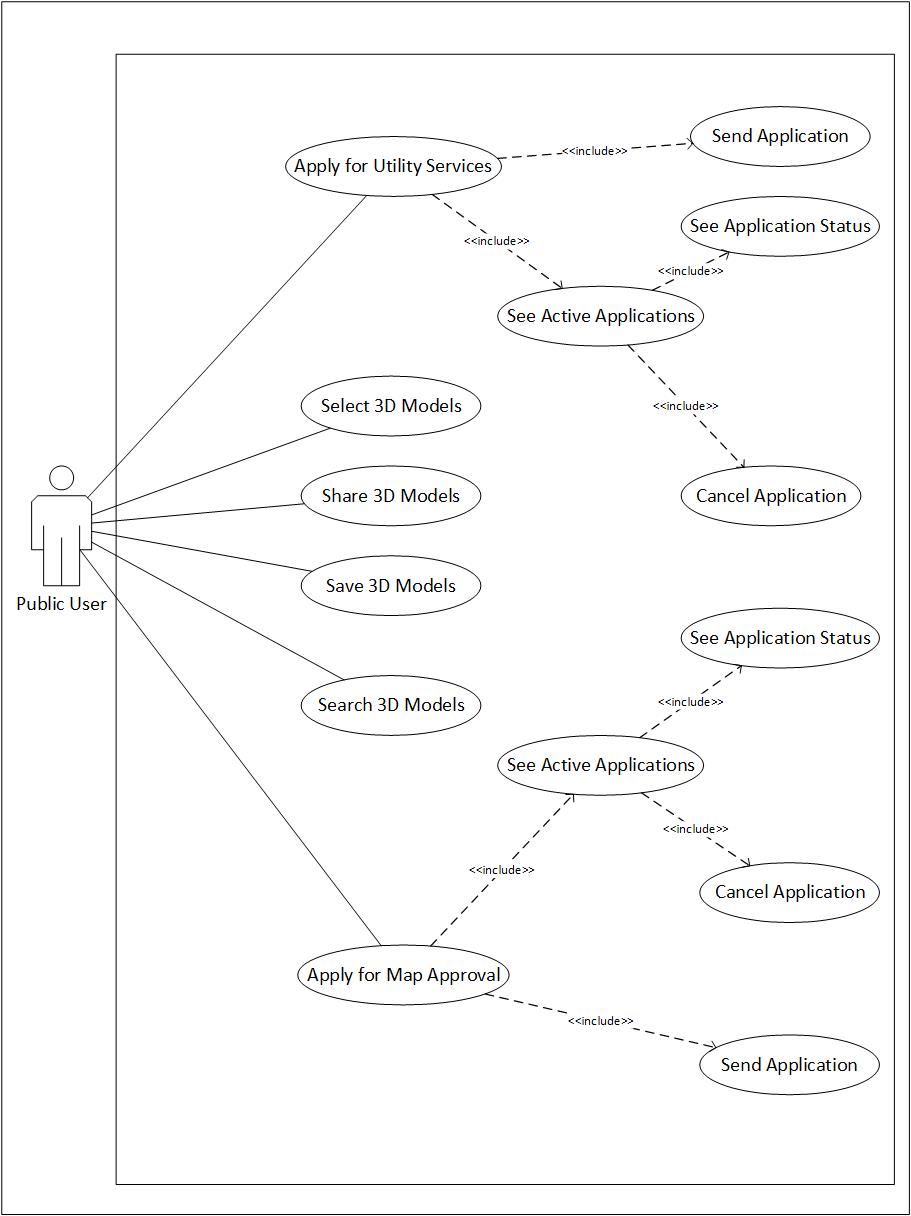


Figure 4: Use Case Diagram Showing Application Procedure with Official Authorities

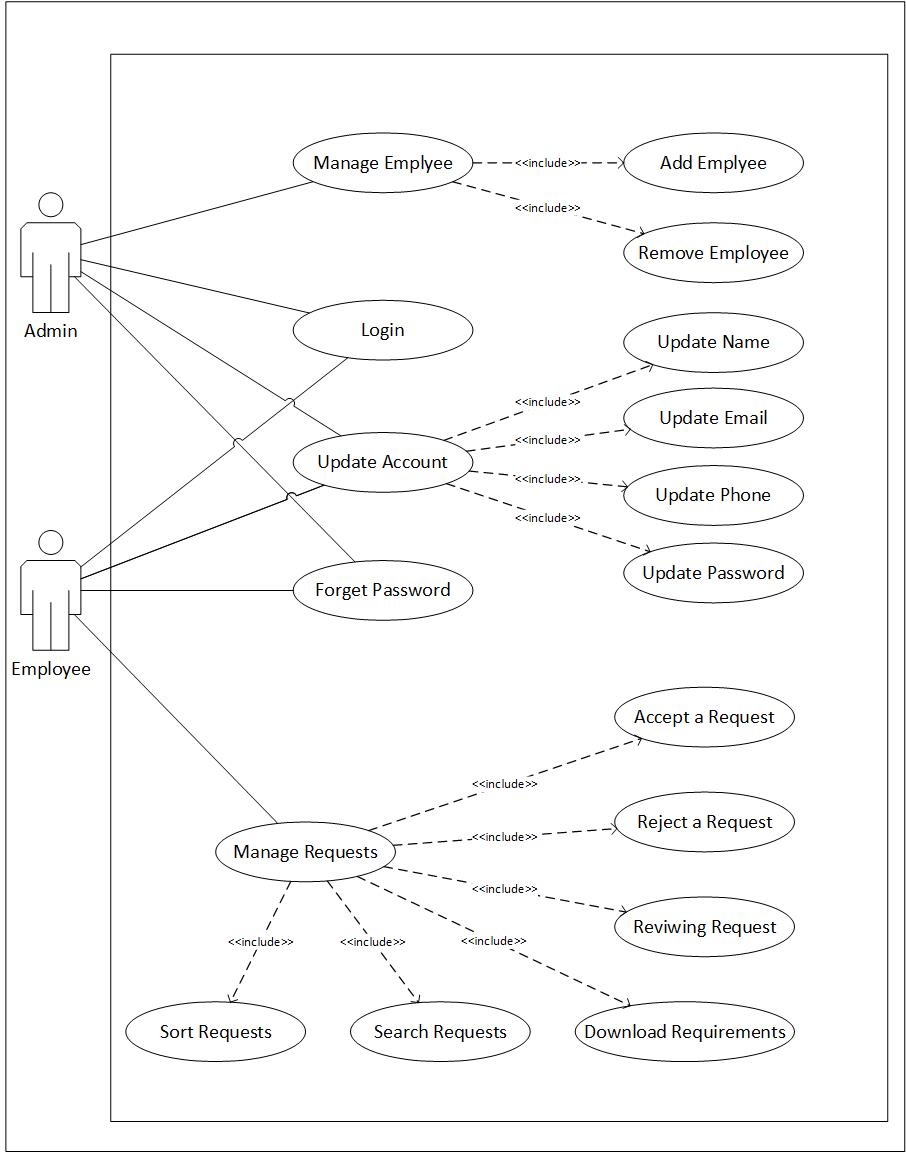


Figure 5: Use Case Diagram Explaining Activities of Admin

## Use Case Description

**Module 1: Basics**

|  |  |
| --- | --- |
| **M1-UC1** | Sign up (Mobile) |
| **M1-UC2** | Sign up (Web) |
| **M1-UC3** | Log in (Mobile) |
| **M1-UC4** | Log in (Web) |
| **M1-UC5** | Forget Password (Mobile) |
| **M1-UC6** | Forget Password (Web) |
| **M1-UC7** | Update Profile (Mobile) |
| **M1-UC8** | Update Profile (Web) |
| **M1-UC9** | Profile Privacy (Web) |
| **M1-UC10** | Profile Privacy (Mobile) |
| **M1-UC11** | Help & Support |
| **M1-UC12** | Remove Account (Mobile) |
| **M1-UC13** | Remove Account (Web) |
| **M1-UC14** | App Settings (Mobile) |
| **M1-UC15** | App Settings (Web) |
| **M1-UC16** | Notifications (Web) |
| **M1-UC17** | Notifications (Mobile) |
| **M1-UC18** | Subscriptions |

**Module 2: Buy and Sell**

|  |  |
| --- | --- |
| **M2-UC1** | Post Add (Web) |
| **M2-UC2** | Post Add (Mobile) |
| **M2-UC3** | Edit Add (Web) |
| **M2-UC4** | Edit Add (Mobile) |
| **M2-UC5** | Delete Add (Web) |
| **M2-UC6** | Delete Add (Mobile) |
| **M2-UC7** | View Add (Web) |
| **M2-UC8** | View Add (Mobile) |
| **M2-UC9** | History (Web) |
| **M2-UC10** | History (Mobile) |
| **M2-UC11** | Favorite Add (Web) |
| **M2-UC12** | Favorite Add (Mobile) |

**Module 3: Search**

|  |  |
| --- | --- |
| **M3-UC1** | Search by Text (Web) |
| **M3-UC2** | Search by Text (Mobile) |
| **M3-UC3** | Search by Audio (Web) |
| **M3-UC4** | Search by Audio (Mobile) |
| **M3-UC5** | Filters (Web) |
| **M3-UC6** | Filters (Mobile) |
| **M3-UC7** | Suggestions (Web) |
| **M3-UC8** | Suggestions (Mobile) |

**Module 4: Chat**

|  |  |
| --- | --- |
| **M4-UC1** | New Conversation (Web) |
| **M4-UC2** | New Conversation (Mobile) |
| **M4-UC3** | Delete Conversation (Web) |
| **M4-UC4** | Delete Conversation (Mobile) |
| **M4-UC5** | Archive Conversation (Web) |
| **M4-UC6** | Archive Conversation (Mobile) |
| **M4-UC7** | See Archived Conversation (Web) |
| **M4-UC8** | See Archived Conversation (Mobile) |
| **M4-UC9** | Send Text (Web) |
| **M4-UC10** | Send Text (Mobile) |
| **M4-UC11** | Send File (Web) |
| **M4-UC12** | Send File (Mobile) |
| **M4-UC13** | Send Location (Mobile) |
| **M4-UC14** | Send Location (Web) |
| **M4-UC15** | Send a Link (Web) |
| **M4-UC16** | Send a Link (Mobile) |
| **M4-UC17** | Delete Message (Web) |
| **M4-UC18** | Delete Message (Mobile) |
| **M4-UC19** | Delete for All (Web) |
| **M4-UC20** | Delete for All (Mobile) |

**Module 5: Recommendations Tab**

|  |  |
| --- | --- |
| **M5-UC1** | Process Recommendation (Web) |
| **M5-UC2** | Process Recommendation (Mobile) |
| **M5-UC3** | Show Recommendation (Web) |
| **M5-UC4** | Show Recommendation (Mobile) |
| **M5-UC5** | Take Feedback (Web) |
| **M5-UC6** | Take Feedback (Mobile) |

**Module 6: Map Making (3D Modeling)**

|  |  |
| --- | --- |
| **M6-UC1** | Pre-Built Models |
| **M6-UC2** | Show Model (Web) |
| **M6-UC3** | Show Model (Mobile) |
| **M6-UC4** | Save Model (Web) |
| **M6-UC5** | Save Model (Mobile) |
| **M6-UC6** | Share Model (Web) |
| **M6-UC7** | Share Model (Mobile) |

**Module 7: House Décor (AR)**

|  |  |
| --- | --- |
| **M7-UC1** | Show Objects |
| **M7-UC2** | Select Objects |
| **M7-UC3** | Move Objects |
| **M7-UC4** | Resize Objects |
| **M7-UC5** | Place Objects |
| **M7-UC6** | Rotate Objects |
| **M7-UC7** | Remove Objects |

**Module 8: Application Request**

|  |  |
| --- | --- |
| **M8-UC1** | New Application (Web) |
| **M8-UC2** | New Application (Mobile) |
| **M8-UC3** | Verify Application (Web) |
| **M8-UC4** | Verify Application (Mobile) |
| **M8-UC5** | Manage Application (Web) |
| **M8-UC6** | Manage Application (Mobile) |
| **M8-UC7** | View Application (Web) |
| **M8-UC8** | View Application (Mobile) |
| **M8-UC9** | Cancel Application (Web) |
| **M8-UC10** | Cancel Application (Mobile) |
| **M8-UC11** | Receive Update (Web) |
| **M8-UC12** | Receive Update (Mobile) |
| **M8-UC13** | Re-submit (Web) |
| **M8-UC14** | Re-submit (Mobile) |

**Module 9: Requests Management**

|  |  |
| --- | --- |
| **M9-UC1** | Create Admin Account |
| **M9-UC2** | First Login |
| **M9-UC3** | Login |
| **M9-UC4** | Forget Password |
| **M9-UC5** | Update Profile |
| **M9-UC6** | Add Employee |
| **M9-UC7** | Employee role |
| **M9-UC8** | Remove Employee |
| **M9-UC9** | View Request |
| **M9-UC10** | Download/View Attachments |
| **M9-UC11** | Update Request |
| **M9-UC12** | Terminate Request |

### Module 1: Basics

Following are Tabular Use Cases for Module 1

Table 1: Sign up (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC1 |
| **Use Case Name:** | Sign up (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to create account for SCM. |
| **Trigger:** | Click on the “Sign up” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Valid Email. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on Sign up Button 2. User will enter email 3. User will enter password 4. User will confirm password 5. User’s Email will be verified via OTP 6. User will enter OTP received on email 7. User will add profile information 8. User will click continue to save data |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 3. User enters invalid OTP “Prompt Message saying Enter Valid OTP” |
| **Postconditions:** | POST-1. User will be registered |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 2: Sign up (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC2 |
| **Use Case Name:** | Sign up (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to create account for SCM. |
| **Trigger:** | Click on the “Sign up” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Valid Email. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on Sign up Button 2. User will enter email 3. User will enter password 4. User will confirm password 5. User’s Email will be verified via OTP 6. User will enter OTP received on email 7. User will add profile information 8. User will click continue to save data |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 3. User enters invalid OTP “Prompt Message saying Enter Valid OTP” |
| **Postconditions:** | POST-1. User will be registered |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 3: Log in (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC3 |
| **Use Case Name:** | Log in (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to login into SCM account. |
| **Trigger:** | Click on the “Log in” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC1 |
| **Normal Flow:** | 1. User will click on Log in Button 2. User will enter email 3. User will enter password 4. User will click Login to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 3. User email and password does not match the records “Invalid Email or Password’ will prompt. |
| **Postconditions:** | POST-1. User will be Logged in. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 4: Log in (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC4 |
| **Use Case Name:** | Log in (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to login into SCM account. |
| **Trigger:** | Click on the “Log in” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC2 |
| **Normal Flow:** | 1. User will click on Log in Button 2. User will enter email 3. User will enter password 4. User will click Login to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 3. User email and password does not match the records “Invalid Email or Password’ will prompt. |
| **Postconditions:** | POST-1. User will be Logged in. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 5: Forget Password (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC5 |
| **Use Case Name:** | Forget Password (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to login into SCM account after setting new password. |
| **Trigger:** | Click on the “Forget Password” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC1 |
| **Normal Flow:** | 1. User will click on ‘Forget Password’ Button 2. User will enter email 3. OTP will be sent to User’s email 4. User will OTP 5. User will enter new password 6. User will confirm password 7. User will click Confirm to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” |
| **Postconditions:** | POST-1. User’s password will be updated |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 6: Forget Password (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC6 |
| **Use Case Name:** | Forget Password (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to login into SCM account after setting new password. |
| **Trigger:** | Click on the “Forget Password” button |
| **Level:** | High |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC2 |
| **Normal Flow:** | 1. User will click on ‘Forget Password’ Button 2. User will enter email 3. OTP will be sent to User’s email 4. User will OTP 5. User will enter new password 6. User will confirm password 7. User will click Confirm to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” |
| **Postconditions:** | POST-1. User’s password will be updated |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 7: Update Profile (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC7 |
| **Use Case Name:** | Update Profile (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to change profile info. |
| **Trigger:** | Click on the “Update Profile” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on ‘Update Profile’ Button 2. User will change the fields to be updated 3. User will click Confirm to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” |
| **Postconditions:** | POST-1. User’s profile info will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 8: Update Profile (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC8 |
| **Use Case Name:** | Update Profile (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to change profile info. |
| **Trigger:** | Click on the “Update Profile” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on ‘Update Profile’ Button 2. User will change the fields to be updated 3. User will click Confirm to continue |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If email is invalid user will see a prompt message “Enter Valid Email” 2. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” |
| **Postconditions:** | POST-1. User’s profile info will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an email and can speak English |

Table 9: Profile Privacy (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC9 |
| **Use Case Name:** | Profile Privacy (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to change profile privacy. |
| **Trigger:** | Click on the “Profile Privacy” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on ‘Profile Privacy’ Button 2. User will see dropdown ahead of each profile info 3. User may select public or private. 4. The privacy of such field will be updated on dropdown change |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s profile privacy will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about privacy meanings. |

Table 10: Profile Privacy (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC10 |
| **Use Case Name:** | Profile Privacy (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to change profile privacy. |
| **Trigger:** | Click on the “Profile Privacy” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has Created Account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on ‘Profile Privacy’ Button 2. User will see dropdown ahead of each profile info 3. User may select public or private. 4. The privacy of such field will be updated on dropdown change |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s profile privacy will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about privacy meanings. |

Table 11: Help & Support.

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC11 |
| **Use Case Name:** | Help & Support |
| **Actors:** | Primary Actor: User  Secondary Actor: SCM |
| **Description:** | User will be able to get help from SCM. |
| **Trigger:** | Click on the “Help & Support” button |
| **Level:** | Low |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on ‘Help Support’ Button 2. User will be redirected to a webpage with help menu 3. User will navigate in help page as per requirement 4. If User does not find help, user may email at email provided in footer of help page |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s profile privacy will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about privacy meanings. |

Table 12: Remove Account (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC12 |
| **Use Case Name:** | Remove Account (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Remove Account. |
| **Trigger:** | Click on the “Delete Account” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1: User has created account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on ‘Delete Account’ Button 2. OTP will be sent user’s email. 3. User will enter OTP from email. 4. User will enter Password 5. User will confirm account deletion. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 2. User enters invalid OTP “Prompt Message saying Enter Valid OTP” |
| **Postconditions:** | POST-1. User’s profile will be removed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about account removal.  User knows that the process is irreversible. |

Table 13: Remove Account (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC13 |
| **Use Case Name:** | Remove Account (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Remove Account. |
| **Trigger:** | Click on the “Delete Account” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1: User has created account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on ‘Delete Account’ Button 2. OTP will be sent user’s email. 3. User will enter OTP from email. 4. User will enter Password 5. User will confirm account deletion. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If password does not meet minimum requirements “Password must have minimum 8 characters, digits, alphabet and special character” 2. User enters invalid OTP “Prompt Message saying Enter Valid OTP” |
| **Postconditions:** | POST-1. User’s profile will be removed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about account removal.  User knows that the process is irreversible. |

Table 14: App Settings (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC14 |
| **Use Case Name:** | App Settings (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Change Application Settings. |
| **Trigger:** | Click on the “Settings” button |
| **Level:** | Medium |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on ‘Settings’ Button 2. User may change app theme (Follow System, Dark or Light). 3. User may Logout. 4. User may change current location. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have GPS on then prompt message will appear “Turn on GPS to get current location” |
| **Postconditions:** | POST-1. User’s account will be logged out.  POST-2. User’s theme will be changed.  POST-3. User’s location will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about location and themes. |

Table 15: App Settings (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC15 |
| **Use Case Name:** | App Settings (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Change Application Settings. |
| **Trigger:** | Click on the “Settings” button |
| **Level:** | Medium |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on ‘Settings’ Button 2. User may change app theme (Follow System, Dark or Light). 3. User may Logout. 4. User may change current location. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have GPS on then prompt message will appear “Turn on GPS to get current location” |
| **Postconditions:** | POST-1. User’s account will be logged out.  POST-2. User’s theme will be changed.  POST-3. User’s location will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about location and themes. |

Table 16: Notifications (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC16 |
| **Use Case Name:** | Notifications (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Change Notifications Settings. |
| **Trigger:** | Click on the “Notifications” button |
| **Level:** | Medium |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on ‘Notifications Settings’ Button 2. User may toggle all notifications off. 3. User may toggle messaging notification 4. User may toggle ADs notification |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have GPS on then prompt message will appear “Turn on GPS to get current location” |
| **Postconditions:** | POST-1. User’s account will be logged out.  POST-2. User’s theme will be changed.  POST-3. User’s location will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about location and themes. |

Table 17: Notifications (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC17 |
| **Use Case Name:** | Notifications (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Change Notifications Settings. |
| **Trigger:** | Click on the “Notifications” button |
| **Level:** | Medium |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on ‘Notifications Settings’ Button 2. User may toggle all notifications off. 3. User may toggle messaging notification 4. User may toggle ADs notification |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have GPS on then prompt message will appear “Turn on GPS to get current location” |
| **Postconditions:** | POST-1. User’s account will be logged out.  POST-2. User’s theme will be changed.  POST-3. User’s location will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about location and themes. |

Table 18: Subscription.

|  |  |
| --- | --- |
| **Use Case ID:** | M1-UC18 |
| **Use Case Name:** | Subscription. |
| **Actors:** | Primary Actor: User  Secondary Actor: SCM |
| **Description:** | User will be able to Subscribe to Newsletter. |
| **Trigger:** | Click on the “Subscribe” button |
| **Level:** | Medium |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will enter email on text field 2. User will press subscribe button. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have GPS on then prompt message will appear “Turn on GPS to get current location” |
| **Postconditions:** | POST-1. User’s account will be logged out.  POST-2. User’s theme will be changed.  POST-3. User’s location will be changed. |
| **Business Rules** | N/A |
| **Assumptions:** | User has knowledge about location and themes. |

### Module 2: Buy and Sell

Following are the Tabular Use Cases for second module.

Table 19: Post ad (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC1 |
| **Use Case Name:** | Post ad (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to post ad |
| **Trigger:** | Click on the “Post ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on the post ad button 2. User will select the ad category 3. User will enter ad description 4. User will enter service price 5. User will enter service location 6. User will press ‘post’ button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 9a. if user doesn’t fill all the fields   1. Prompt message will appear “please enter all fields” |
| **Postconditions:** | POST-1. User will be able to post an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 20: Post ad (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC2 |
| **Use Case Name:** | Post ad (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to post ad |
| **Trigger:** | Click on the “Post ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on the post ad button 2. User will select the ad category 3. User will enter ad description 4. User will enter service price 5. User will enter service location 6. User will press ‘post’ button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 9a. if user doesn’t fill all the fields   1. Prompt message will appear “please enter all fields” |
| **Postconditions:** | POST-1. User will be able to post an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 21: Edit ad (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC3 |
| **Use Case Name:** | Edit ad |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to Edit an ad |
| **Trigger:** | Click on the “Edit ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will select my adds button 2. User will click on the edit ad button 3. User will select the desired posted ad 4. User will click ok button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to delete an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 22: Edit ad (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC-4 |
| **Use Case Name:** | Edit ad |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to Edit an ad |
| **Trigger:** | Click on the “Edit ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will select my adds button 2. User will click on the edit ad button 3. User will select the desired posted ad 4. User will click ok button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to delete an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 23: Delete ad (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC5 |
| **Use Case Name:** | Delete ad |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to Delete an ad |
| **Trigger:** | Click on the “Delete ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will select my adds button 2. User will click on the delete ad button 3. User will select the desired posted ad 4. User will click ok button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to delete an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 24: Delete ad (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC6 |
| **Use Case Name:** | Delete ad |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to Delete an ad |
| **Trigger:** | Click on the “Delete ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will select my adds button 2. User will click on the delete ad button 3. User will select the desired posted ad 4. User will click ok button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to delete an ad |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 25: View ad (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC7 |
| **Use Case Name:** | View ad |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to View a posted ad |
| **Trigger:** | Click on the “View ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on the ad button 2. User will see the ad 3. Add will be saved to view history |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to view a desired ad. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 26: View ad (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC8 |
| **Use Case Name:** | View ad (Mobile) |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to View a posted ad |
| **Trigger:** | Click on the “View ad” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on the ad button 2. User will see the ad 3. Add will be saved to view history |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 2a if user doesn’t select the desired ad   1. Prompt message will appear “please select the desired ad” |
| **Postconditions:** | POST-1. User will be able to view a desired ad. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 27: History (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC9 |
| **Use Case Name:** | History (Web) |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to manage a viewed ad history |
| **Trigger:** | Click on the “View ads history” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on the history button 2. User will see all the ads viewed 3. User can turn off history 4. User can clear history |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to view history. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 28: History (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC10 |
| **Use Case Name:** | History (Mobile) |
| **Actors:** | Primary Actor: User Secondary Actor: Smart Construction Manager |
| **Description:** | User will be able to manage a viewed ad history |
| **Trigger:** | Click on the “View ads history” button |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on the history button 2. User will see all the ads viewed 3. User can turn off history 4. User can clear history |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to view history. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 29: Favorite Ad (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC11 |
| **Use Case Name:** | Favorite Ad (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Favorite Ad and manage them |
| **Trigger:** | Click on the “Heart” icon on any ad |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on the add to view 2. User press heart icon on add. 3. User can manage favorites in favorites list 4. User can clear favorites |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to view history. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

Table 30: Favorite Ad (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M2-UC12 |
| **Use Case Name:** | Favorite Ad (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Favorite Ad and manage them |
| **Trigger:** | Click on the “Heart” icon on any ad |
| **Level:** | Medium |
| **Preconditions:** | PRE-1. User has logged in the account. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on the add to view 2. User press heart icon on add. 3. User can manage favorites in favorites list 4. User can clear favorites |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to view history. |
| **Business Rules** | N/A |
| **Assumptions:** | User has an active internet connection.  User has installed the application.  User has an account. |

### Module 3: Search

Following are the Tabular Use Cases for third module

Table 31: Search by Text (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC1 |
| **Use Case Name:** | Search by Text (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Search Ad |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on search bar 3. User types the text they want to search. 4. User will see list of relevant results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 32: Search by Text (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC2 |
| **Use Case Name:** | Search by Text (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Search Ad |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on search bar 3. User types the text they want to search. 4. User will see list of relevant results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 33: Search by Audio (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC3 |
| **Use Case Name:** | Search by Audio (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Search Ad |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on search bar 3. User presses speaker icon and starts speaking 4. Speech is converted to text and displayed on search bar. 5. User will see list of search results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 34: Search by Audio (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC4 |
| **Use Case Name:** | Search by Audio (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Search Ad |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on search bar 3. User presses speaker icon and starts speaking 4. Speech is converted to text and displayed on search bar. 5. User will see list of search results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 35: Filters (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC5 |
| **Use Case Name:** | Filters (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Filter Search results |
| **Trigger:** | Click on the “Filter” Button. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on filter button. 3. User checks the fields user want to be displayed. 4. User will see list of filtered search results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will see ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 36: Filters (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC6 |
| **Use Case Name:** | Filters (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to Filter Search results |
| **Trigger:** | Click on the “Filter” Button. |
| **Level:** | High |
| **Preconditions:** | N/A. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on filter button. 3. User checks the fields user want to be displayed. 4. User will see list of filtered search results |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will see ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 37: Suggestions (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC7 |
| **Use Case Name:** | Suggestions (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to see search suggestions before typing. |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has entered something on text area. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on Search button. 3. User types on text field. 4. User will see list of search suggestions in dropdown below search bar. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will see ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

Table 38: Suggestions (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M3-UC8 |
| **Use Case Name:** | Suggestions (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to see search suggestions before typing. |
| **Trigger:** | Click on the “Search” Bar. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has entered something on text area. |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User visits SCM website. 2. User will click on Search button. 3. User types on text field. 4. User will see list of search suggestions in dropdown below search bar. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will see ads relevant to text typed. |
| **Business Rules** | N/A |
| **Assumptions:** | User can speak English. |

### Module 4: Chat

Following are the Tabular Use Cases for fourth module.

Table 39: New Conversation (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC1 |
| **Use Case Name:** | New Conversation (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to start a chat with another user. |
| **Trigger:** | Click on the “+” icon in chat menu. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will click on + button. 2. User will enter name of recipient. 3. User selects the recipient from searched results 4. User types text in text area and starts chatting. |
| **Alternative Flows:** | 1. User views an add 2. User press chat button in the add 3. New Conversation is started with the user who posted the ad |
| **Exceptions:** | 1. If user enters the name that does not belong to any SCM account user will see prompt message “No results found” |
| **Postconditions:** | POST-1. User will be able to send message to another user. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 40: New Conversation (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC2 |
| **Use Case Name:** | New Conversation (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to start a chat with another user. |
| **Trigger:** | Click on the “+” icon in chat menu. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will click on + button. 2. User will enter name of recipient. 3. User selects the recipient from searched results 4. User types text in text area and starts chatting. |
| **Alternative Flows:** | 1. User views an add 2. User press chat button in the add 3. New Conversation is started with the user who posted the ad |
| **Exceptions:** | 1. If user enters the name that does not belong to any SCM account user will see prompt message “No results found” |
| **Postconditions:** | POST-1. User will be able to send message to another user. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 41: Delete Conversation (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC3 |
| **Use Case Name:** | Delete Conversation (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete a chat. |
| **Trigger:** | Press and hold the conversation |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will click and hold the conversation. 2. User will press delete button. 3. A confirmation dialog box appears 4. User presses ok to delete the chat |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be deleted. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 42: Delete Conversation (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC4 |
| **Use Case Name:** | Delete Conversation (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete a chat. |
| **Trigger:** | Press and hold the conversation. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2 |
| **Normal Flow:** | 1. User will click and hold the conversation. 2. User will press delete button. 3. A confirmation dialog box appears 4. User presses ok to delete the chat |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be deleted. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 43: Archive Conversation (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC5 |
| **Use Case Name:** | Archive Conversation (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to archive a chat. |
| **Trigger:** | Press and hold the conversation |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will click and hold the conversation. 2. User will press archive button. 3. A confirmation dialog box appears 4. User presses ok to delete the chat |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be archived. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 44: Archive Conversation (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC6 |
| **Use Case Name:** | Archive Conversation (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to archive a chat. |
| **Trigger:** | Press and hold the conversation |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2 |
| **Normal Flow:** | 1. User will click and hold the conversation. 2. User will press archive button. 3. A confirmation dialog box appears 4. User presses ok to delete the chat |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be archive. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 45: See Archive Conversation (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC7 |
| **Use Case Name:** | See Archive Conversation (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to see archived a chat. |
| **Trigger:** | Press ‘Archive’ button in end of chat list |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1, M4-UC5 |
| **Normal Flow:** | 1. User will scroll to the bottom of chats. 2. User will press archive button. 3. User will see archived chats |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be archive. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 46: See Archive Conversation (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC8 |
| **Use Case Name:** | See Archive Conversation (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to see archived a chat. |
| **Trigger:** | Press ‘Archive’ button in end of chat list |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2, M4-UC6 |
| **Normal Flow:** | 1. User will scroll to the bottom of chats. 2. User will press archive button. 3. User will see archived chats |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User’s conversation will be archive. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 47: Send Text (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC9 |
| **Use Case Name:** | Send Text (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send text message. |
| **Trigger:** | Press ‘Send button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will enter text in provided text field. 3. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will enter text in provided text field. 4. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 48: Send Text (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC10 |
| **Use Case Name:** | Send Text (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send text message. |
| **Trigger:** | Press ‘Send button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will enter text in provided text field. 3. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will enter text in provided text field. 4. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 49: Send File (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC11 |
| **Use Case Name:** | Send File (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send file in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select attach file. 3. User will see option to select image/audio/video/file 4. User will select file from the device 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select attach file. 4. User will see option to select image/audio/video/file 5. User will select file from the device 6. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has a file in the system. |

Table 50: Send File (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC12 |
| **Use Case Name:** | Send File (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send file in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select attach file. 3. User will see option to select image/audio/video/file 4. User will select file from the device 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select attach file. 4. User will see option to select image/audio/video/file 5. User will select file from the device 6. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has a file in the system. |

Table 51: Send File (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC11 |
| **Use Case Name:** | Send File (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send file in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select attach file. 3. User will see option to select image/audio/video/file 4. User will select file from the device 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select attach file. 4. User will see option to select image/audio/video/file 5. User will select file from the device 6. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has a file in the system. |

Table 52: Send File (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC12 |
| **Use Case Name:** | Send File (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send file in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select attach file. 3. User will see option to select image/audio/video/file 4. User will select file from the device 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select attach file. 4. User will see option to select image/audio/video/file 5. User will select file from the device 6. User will press send button. |
| **Exceptions:** | If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. User’s message will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has a file in the system. |

Table 53: Send Location (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC13 |
| **Use Case Name:** | Send Location (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send location in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC2 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select location icon. 3. User will see a map. 4. User may drop pin or select current location. 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select location icon. 4. User will see a map. 5. User may drop pin or select current location. 6. User will press send button. |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” 2. If user has not turned GPS on prompt message will appear “Turn on GPS’ |
| **Postconditions:** | POST-1. User’s location will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has maps installed. |

Table 54: Send Location (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC14 |
| **Use Case Name:** | Send Location (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send location in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will select location icon. 3. User will see a map. 4. User may drop pin or select current location. 5. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will select location icon. 4. User will see a map. 5. User may drop pin or select current location. 6. User will press send button. |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” 2. If user has not turned GPS on prompt message will appear “Turn on GPS’ |
| **Postconditions:** | POST-1. User’s location will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu.  User has maps installed. |

Table 55: Send Link (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC15 |
| **Use Case Name:** | Send Link (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send link with preview in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC2, M1-UC4, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will paste link. 3. User will see a link preview. 4. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will paste link. 4. User will see a link preview. 5. User will press send button. |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” 2. And Link preview will not appear |
| **Postconditions:** | POST-1. User’s location will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 56: Send Link (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC16 |
| **Use Case Name:** | Send Link (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to send link with preview in message. |
| **Trigger:** | Press ‘Send’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in. |
| **Includes:** | M1-UC1, M1-UC3, M4-UC2 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will paste link. 3. User will see a link preview. 4. User will press send button. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will paste link. 4. User will see a link preview. 5. User will press send button. |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” 2. And Link preview will not appear |
| **Postconditions:** | POST-1. User’s location will be sent. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 57: Delete Message (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC17 |
| **Use Case Name:** | Delete Message (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete message from conversation. |
| **Trigger:** | Press and hold a message in conversation. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has started a conversation  PRE-3: User has sent a message |
| **Includes:** | M1-UC2, M1-UC4, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will press and hold a message. 3. User will select delete. 4. User will press ok to confirm deletion. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will press and hold a message. 4. User will select delete. 5. User will press ok to confirm deletion |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. Message will be cleared form conversation. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 58: Delete Message (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC18 |
| **Use Case Name:** | Delete Message (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete message from conversation. |
| **Trigger:** | Press and hold a message in conversation. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has started a conversation  PRE-3: User has sent a message |
| **Includes:** | M1-UC1, M1-UC3, M4-UC2 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will press and hold a message. 3. User will select delete. 4. User will press ok to confirm deletion. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will press and hold a message. 4. User will select delete. 5. User will press ok to confirm deletion |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. Message will be cleared form conversation. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 59: Delete for All (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC19 |
| **Use Case Name:** | Delete for All (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete message for recipient’s conversation also. |
| **Trigger:** | Press and hold a message in conversation. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has started a conversation  PRE-3: User has sent a message |
| **Includes:** | M1-UC2, M1-UC4, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will press and hold a message. 3. User will select delete. 4. User will press ok to all to confirm deletion. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will press and hold a message. 4. User will select delete. 5. User will press ok to all to confirm deletion |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. Message will be cleared form conversation.  POST-2. Message will be cleared form recipient’s conversation. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

Table 60: Delete for All (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M4-UC20 |
| **Use Case Name:** | Delete for All (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to delete message for recipient’s conversation also. |
| **Trigger:** | Press and hold a message in conversation. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has started a conversation  PRE-3: User has sent a message |
| **Includes:** | M1-UC2, M1-UC4, M4-UC1 |
| **Normal Flow:** | 1. User will select conversation from list. 2. User will press and hold a message. 3. User will select delete. 4. User will press ok to all to confirm deletion. |
| **Alternative Flows:** | 1. User selects chat button from ad. 2. User will be redirected to the conversation 3. User will press and hold a message. 4. User will select delete. 5. User will press ok to all to confirm deletion |
| **Exceptions:** | 1. If user is not connected to the internet prompt message will appear “Cannot send message! Connect to the internet please” |
| **Postconditions:** | POST-1. Message will be cleared form conversation.  POST-2. Message will be cleared form recipient’s conversation. |
| **Business Rules** | N/A |
| **Assumptions:** | User can navigate to chat menu. |

### Module 5: Recommendations Tab

Following are the Tabular Use Cases for fifth module.

Table 61: Process Recommendations (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC1 |
| **Use Case Name:** | Process Recommendations (Web) |
| **Actors:** | Primary Actor: SCM |
| **Description:** | SCM will take user’s history and feedback to fetch relevant posts for user. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC7, M2-UC-9, M2-UC11 |
| **Normal Flow:** | 1. User will login into app. 2. SCM will take user’s data. 3. SCM will process data. 4. SCM will improve model to match user’s requirement. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. SCM will be ready to identify item as relevant or irrelevant. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

Table 62: Process Recommendations (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC2 |
| **Use Case Name:** | Process Recommendations (Mobile) |
| **Actors:** | Primary Actor: SCM |
| **Description:** | SCM will take user’s history and feedback to fetch relevant posts for user. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC8, M2-UC-10, M2-UC12 |
| **Normal Flow:** | 1. User will login into app. 2. SCM will take user’s data. 3. SCM will process data. 4. SCM will improve model to match user’s requirement. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. SCM will be ready to identify item as relevant or irrelevant. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

Table 63: Show Recommendations (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC3 |
| **Use Case Name:** | Show Recommendations (Web) |
| **Actors:** | Primary Actor: SCM |
| **Description:** | SCM will show user relevant posts. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC7, M2-UC-9, M2-UC11, M5-UC1 |
| **Normal Flow:** | 1. SCM will show user recommendations 2. User will click on recommendations button to see more recommendations |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. User will see relevant content. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

Table 64: Show Recommendations (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC4 |
| **Use Case Name:** | Show Recommendations (Mobile) |
| **Actors:** | Primary Actor: SCM |
| **Description:** | SCM will show user relevant posts. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC8, M2-UC-10, M2-UC12, M5-UC2 |
| **Normal Flow:** | 1. SCM will show user recommendations 2. User will click on recommendations button to see more recommendations |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. User will see relevant content. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

Table 65: Take Feedback (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC5 |
| **Use Case Name:** | Take Feedback (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will select recommended post as relevant or irrelevant. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC7, M2-UC-9, M2-UC11, M5-UC1 |
| **Normal Flow:** | 1. SCM will show user recommendations 2. User will select recommendations 3. User will select relevant or irrelevant from the dropdown. 4. SCM will not recommend that content again |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. SCM will adapt towards user’s behavior |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

Table 66: Take Feedback (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M5-UC6 |
| **Use Case Name:** | Take Feedback (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will select recommended post as relevant or irrelevant. |
| **Trigger:** | User login and opening home page. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  PRE-2: User has viewed ads  PRE-3: User has favorited ads  PRE-4: User has searched. |
| **Includes:** | M2-UC8, M2-UC-10, M2-UC12, M5-UC2 |
| **Normal Flow:** | 1. SCM will show user recommendations 2. User will select recommendations 3. User will select relevant or irrelevant from the dropdown. 4. SCM will not recommend that content again |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have any data recommendations tab will not appear |
| **Postconditions:** | POST-1. SCM will adapt towards user’s behavior |
| **Business Rules** | N/A |
| **Assumptions:** | User wants relevant content. |

### Module 6: Map Making (3D Models)

Following are the Tabular Use Cases for sixth module

Table 67: Pre-Built Models.

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC1 |
| **Use Case Name:** | Pre-Built Models |
| **Actors:** | Primary Actor: SCM  Secondary Actor: User |
| **Description:** | SCM will provide user the pre-built designs of homes in application. |
| **Trigger:** | User clicks on ‘models’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has logged in.  . |
| **Includes:** | N/A |
| **Normal Flow:** | 1. SCM will provide user multiple designs of homes 2. User will see these designs by pressing models’ button 3. User will see list of models with their short description |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have internet the model will not be downloaded and user will see error |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 68: Show Model (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC2 |
| **Use Case Name:** | Show Model (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can see the 3D model. |
| **Trigger:** | User clicks on Model |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has visited the |
| **Includes:** | M6-UC1 |
| **Normal Flow:** | 1. User will click on the model 2. User will see the model. 3. User can rotate the model. 4. User will have full three-dimensional experience of model. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have internet the model will not be downloaded and user will see error message “Connect to internet to download model first time.” |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 69: Show Model (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC3 |
| **Use Case Name:** | Show Model (Model) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can see the 3D model. |
| **Trigger:** | User clicks on Model |
| **Level:** | High |
| **Preconditions:** | PRE-1: User has visited the |
| **Includes:** | M6-UC1 |
| **Normal Flow:** | 1. User will click on the model 2. User will see the model. 3. User can rotate the model. 4. User will have full three-dimensional experience of model. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user does not have internet the model will not be downloaded and user will see error message “Connect to internet to download model first time.” |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 70: Save Model (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC4 |
| **Use Case Name:** | Save Model (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can save the 3D model. |
| **Trigger:** | User clicks on ‘Save Model’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in models’ menu |
| **Includes:** | M1-UC2, M1-UC4, M6-UC1, M6-UC2 |
| **Normal Flow:** | 1. User will click on the model list 2. User will press the save model button |
| **Alternative Flows:** | 1. User is viewing the model 2. User presses save button |
| **Exceptions:** | 1. If user does not have enough storage popup message will appear” saving model to library but cannot be downloaded’ |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object  POST-2. 3D Model will be saved to user’s library |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 71: Save Model (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC5 |
| **Use Case Name:** | Save Model (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can save the 3D model. |
| **Trigger:** | User clicks on ‘Save Model’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in models’ menu |
| **Includes:** | M1-UC1, M1-UC3, M6-UC2, M6-UC3 |
| **Normal Flow:** | 1. User will click on the model list 2. User will press the save model button |
| **Alternative Flows:** | 1. User is viewing the model 2. User presses save button |
| **Exceptions:** | 1. If user does not have enough storage popup message will appear” saving model to library but cannot be downloaded’ |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object  POST-2. 3D Model will be saved to user’s library |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 72: Share Model (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC6 |
| **Use Case Name:** | Share Model (Web). |
| **Actors:** | Primary Actor: User |
| **Description:** | User can share the 3D model. |
| **Trigger:** | User clicks on ‘Share’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in models’ menu |
| **Includes:** | M1-UC1, M1-UC3, M6-UC2, M6-UC3 |
| **Normal Flow:** | 1. User will click on the model list 2. User will press the share model button |
| **Alternative Flows:** | 1. User is viewing the model 2. User presses share button |
| **Exceptions:** | 1. If user does not have enough storage popup message will appear” saving model to library but cannot be downloaded’ |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object  POST-2. 3D Model will be shared. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

Table 73: Share Model (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M6-UC7 |
| **Use Case Name:** | Share Model (Mobile). |
| **Actors:** | Primary Actor: User |
| **Description:** | User can share the 3D model. |
| **Trigger:** | User clicks on ‘Share’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in models’ menu |
| **Includes:** | M1-UC1, M1-UC3, M6-UC2, M6-UC3 |
| **Normal Flow:** | 1. User will click on the model list 2. User will press the share model button |
| **Alternative Flows:** | 1. User is viewing the model 2. User presses share button |
| **Exceptions:** | 1. If user does not have enough storage popup message will appear” saving model to library but cannot be downloaded’ |
| **Postconditions:** | POST-1. User will have full experience of viewing 3D Object  POST-2. 3D Model will be shared. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants maps for construction site. |

### Module 7: House Décor (AR)

Following are the Tabular Use Cases for seventh module

Table 74: Show Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC1 |
| **Use Case Name:** | Show Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can see the list of possible objects to be placed. |
| **Trigger:** | User clicks on ‘Objects’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | N/A |
| **Normal Flow:** | 1. User will click on the AR Menu 2. User will see the list of possible objects |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 75: Select Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC2 |
| **Use Case Name:** | Select Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can select the object from list. |
| **Trigger:** | User clicks on ‘Object’ |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1 |
| **Normal Flow:** | 1. User will click on object 2. Object will be placed to virtual world |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 76: Move Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC3 |
| **Use Case Name:** | Move Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can move the object in virtual world. |
| **Trigger:** | User drags on screen, User moves phone |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1, M7-UC2 |
| **Normal Flow:** | 1. User will press and hold the object 2. User will drag the object to move it in the virtual world 3. Moving Phone will also move the object. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 77: Resize Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC4 |
| **Use Case Name:** | Resize Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can change the size of the object in virtual world. |
| **Trigger:** | User pinches on the object |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1, M7-UC2 |
| **Normal Flow:** | 1. User will pinch on the object 2. Object size will increase Moving Phone will also move the object. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 78: Place Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC5 |
| **Use Case Name:** | Place Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can fix the position of the object in virtual world. |
| **Trigger:** | User will select ‘Place’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1, M7-UC2, M7-UC4 |
| **Normal Flow:** | 1. User will select ‘Place’ button 2. Object will remain fixed in the virtual world. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 79: Rotate Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC6 |
| **Use Case Name:** | Rotate Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can rotate the object in virtual world. |
| **Trigger:** | User presses “rotate” icon on object. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1, M7-UC2 |
| **Normal Flow:** | 1. User will press and hold object on virtual world 2. User will press and hold rotate button 3. User will swipe on screen to rotate object. 4. Object will be rotated in the virtual world. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

Table 80: Remove Objects.

|  |  |
| --- | --- |
| **Use Case ID:** | M7-UC7 |
| **Use Case Name:** | Remove Objects. |
| **Actors:** | Primary Actor: User |
| **Description:** | User can remove the object from virtual world. |
| **Trigger:** | User presses “remove” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is in Décor menu |
| **Includes:** | M7-UC1, M7-UC2 |
| **Normal Flow:** | 1. User will press and hold object on virtual world 2. User will press remove button 3. Object will be removed from the virtual world. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user’s device does not support AR prompt message will appear “Device not supported” |
| **Postconditions:** | POST-1. User will have full experience of AR.  POST-2. User will be able to virtually décor house before buying things. |
| **Business Rules** | N/A |
| **Assumptions:** | User wants to décor house virtually. |

### Module 8: Application Requests

Following are the Tabular Use Cases for eighth module

Table 81: New Application (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC1 |
| **Use Case Name:** | New Application (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can send application to government authorities. |
| **Trigger:** | User presses “+” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User is in Application Menu |
| **Includes:** | M1-UC2, M1-UC4, |
| **Normal Flow:** | 1. User will press ‘+’ button 2. User will be asked to select government body 3. User will be given a form to fill w.r.t to the authority 4. User will attach the required documents in pdf or image format 5. User will press send button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user enters invalid CNIC prompt message will appear “Enter Valid CNIC’ 2. If user enters invalid Email prompt message will appear “Enter Valid Email’ 3. If user enters invalid Phone prompt message will appear “Enter Valid Phone’ 4. If user does not attach requirements error message will appear saying “Attach required documents’ |
| **Postconditions:** | POST-1. User’s application will be sent to verification phase.  POST-2. User will immediately get response if the application was submitted. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 82: New Application (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC2 |
| **Use Case Name:** | New Application (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User can send application to government authorities. |
| **Trigger:** | User presses “+” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User is in Application Menu |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will press ‘+’ button 2. User will be asked to select government body 3. User will be given a form to fill w.r.t to the authority 4. User will attach the required documents in pdf or image format 5. User will press send button |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user enters invalid CNIC prompt message will appear “Enter Valid CNIC’ 2. If user enters invalid Email prompt message will appear “Enter Valid Email’ 3. If user enters invalid Phone prompt message will appear “Enter Valid Phone’ 4. If user does not attach requirements error message will appear saying “Attach required documents’ |
| **Postconditions:** | POST-1. User’s application will be sent to verification phase.  POST-2. User will immediately get response if the application was submitted. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 83: Verify Application (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC3 |
| **Use Case Name:** | Verify Application (Web) |
| **Actors:** | Primary Actor: SCM  Secondary Actor: User |
| **Description:** | User’s application will be verified before sending. |
| **Trigger:** | User presses “Send” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User sent the application |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1 |
| **Normal Flow:** | 1. User will press ‘Send’ button 2. SCM verifies if there is any other application for same address. One address can have only one application. 3. SCM verifies if the applications against CNIC are not more than five. 4. SCM informs user if the application is sent to respective authority or not. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If a request has been made for same address prompt message will appear “One application request against this address has already been made. Complete previous request to request more.’ 2. If five requests have been made with same CNIC prompt message will appear “this CNIC has already made five requests. Complete previous requests to request more.’ |
| **Postconditions:** | POST-1. User’s application will be sent to government body.  POST-2. User will immediately get response if the application was submitted. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 84: Verify Application (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC4 |
| **Use Case Name:** | Verify Application (Mobile) |
| **Actors:** | Primary Actor: SCM  Secondary Actor: User |
| **Description:** | User’s application will be verified before sending. |
| **Trigger:** | User presses “Send” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User sent the application |
| **Includes:** | M1-UC1, M1-UC3, M8-UC2 |
| **Normal Flow:** | 1. User will press ‘Send’ button 2. SCM verifies if there is any other application for same address. One address can have only one application. 3. SCM verifies if the applications against CNIC are not more than five. 4. SCM informs user if the application is sent to respective authority or not. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If a request has been made for same address prompt message will appear “One application request against this address has already been made. Complete previous request to request more.’ 2. If five requests have been made with same CNIC prompt message will appear “this CNIC has already made five requests. Complete previous requests to request more.’ |
| **Postconditions:** | POST-1. User’s application will be sent to government body.  POST-2. User will immediately get response if the application was submitted. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 85: Manage Application (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC5 |
| **Use Case Name:** | Manage Application (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will see list of applications. |
| **Trigger:** | User presses “Manage Applications” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in |
| **Includes:** | M1-UC2, M1-UC4 |
| **Normal Flow:** | 1. User will press ‘Manage Applications’ button 2. User will see a list of applications. 3. Applications will be grouped according to their status (Active, Completed, Rejected etc.) |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user has not made any applications requests “no application requests” will appear instead of the list. |
| **Postconditions:** | POST-1. User will be able to see application request history.  POST-2. User will be able to manage applications. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 86: Manage Application (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC6 |
| **Use Case Name:** | Manage Application (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will see list of applications. |
| **Trigger:** | User presses “Manage Applications” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in |
| **Includes:** | M1-UC1, M1-UC3 |
| **Normal Flow:** | 1. User will press ‘Manage Applications’ button 2. User will see a list of applications. 3. Applications will be grouped according to their status (Active, Completed, Rejected etc.) |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user has not made any applications requests “no application requests” will appear instead of the list. |
| **Postconditions:** | POST-1. User will be able to see application request history.  POST-2. User will be able to manage applications. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 87: View Application (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC7 |
| **Use Case Name:** | View Application (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will see detail of application. |
| **Trigger:** | User clicks on applications from list. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1, M8-UC3, M8-UC5 |
| **Normal Flow:** | 1. User will click on application. 2. User will see application detail. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to see application history.  POST-2. User will be able to cancel application.  POST-3. User will be able to resubmit application. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 88: View Application (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC8 |
| **Use Case Name:** | View Application (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will see detail of application. |
| **Trigger:** | User clicks on applications from list. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC1, M1-UC3, M8-UC2, M8-UC4, M8-UC6 |
| **Normal Flow:** | 1. User will click on application. 2. User will see application detail. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Postconditions:** | POST-1. User will be able to see application history.  POST-2. User will be able to cancel application.  POST-3. User will be able to resubmit application. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 89: Cancel Application (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC9 |
| **Use Case Name:** | Cancel Application (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to cancel application request made |
| **Trigger:** | User clicks on ‘Cancel’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1, M8-UC3, M8-UC5, M8-UC7 |
| **Normal Flow:** | 1. User will click on application. 2. User will click ‘Cancel Button’ |
| **Alternative Flows:** | 1. User will click on Manage Application. 2. User will press ‘x’ button on application. |
| **Exceptions:** | 1. If application is complete ‘cancel’ button will not appear. |
| **Postconditions:** | POST-1. Application will be canceled. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 90: Cancel Application (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC10 |
| **Use Case Name:** | Cancel Application (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to cancel application request made |
| **Trigger:** | User clicks on ‘Cancel’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC1, M1-UC3, M8-UC2, M8-UC4, M8-UC6, M8-UC8 |
| **Normal Flow:** | 1. User will click on application. 2. User will click ‘Cancel Button’ |
| **Alternative Flows:** | 1. User will click on Manage Application. 2. User will press ‘x’ button on application. |
| **Exceptions:** | 1. If application is complete ‘cancel’ button will not appear. |
| **Postconditions:** | POST-1. Application will be canceled |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 91: Receive Update (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC11 |
| **Use Case Name:** | Receive Update (Web) |
| **Actors:** | Primary Actor: SCM  Secondary Actor: User |
| **Description:** | User will be able to receive application update. |
| **Trigger:** | SCM receives response from admin. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1, M8-UC3 |
| **Normal Flow:** | 1. SCM will run background service to receive update from government authorities. 2. SCM will notify user of update. 3. User will click on notification to see the update. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user has turned off notification’s user will not see notification of update. |
| **Postconditions:** | POST-1. User will see updated response. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 92: Receive Update (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC12 |
| **Use Case Name:** | Receive Update (Mobile) |
| **Actors:** | Primary Actor: SCM  Secondary Actor: User |
| **Description:** | User will be able to receive application update. |
| **Trigger:** | SCM receives response from admin. |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC1, M1-UC3, M8-UC2, M8-UC4 |
| **Normal Flow:** | 1. SCM will run background service to receive update from government authorities. 2. SCM will notify user of update. 3. User will click on notification to see the update. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user has turned off notification’s user will not see notification of update. |
| **Postconditions:** | POST-1. User will see updated response. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 93: Re-submit (Web).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC13 |
| **Use Case Name:** | Re-submit (Web) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to resubmit application. |
| **Trigger:** | User clicks RI-submit’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1, M8-UC3, M8-UC5, M8-UC7, M8-UC11 |
| **Normal Flow:** | 1. User clicks on Re-submit button 2. User fix the application form as per admin requirement. 3. User press submit button. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user enters invalid CNIC prompt message will appear “Enter Valid CNIC’ 2. If user enters invalid Email prompt message will appear “Enter Valid Email’ 3. If user enters invalid Phone prompt message will appear “Enter Valid Phone’ 4. If user does not attach requirements error message will appear saying “Attach required documents’ |
| **Postconditions:** | POST-1. User will send updated application. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

Table 94: Re-submit (Mobile).

|  |  |
| --- | --- |
| **Use Case ID:** | M8-UC14 |
| **Use Case Name:** | Re-submit (Mobile) |
| **Actors:** | Primary Actor: User |
| **Description:** | User will be able to resubmit application. |
| **Trigger:** | User clicks ‘Re-submit’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: User is logged in  PRE-2: User has made application request |
| **Includes:** | M1-UC2, M1-UC4, M8-UC1, M8-UC3, M8-UC5, M8-UC7, M8-UC11 |
| **Normal Flow:** | 1. User clicks on Re-submit button 2. User fix the application form as per admin requirement. 3. User press submit button. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If user enters invalid CNIC prompt message will appear “Enter Valid CNIC’ 2. If user enters invalid Email prompt message will appear “Enter Valid Email’ 3. If user enters invalid Phone prompt message will appear “Enter Valid Phone’ 4. If user does not attach requirements error message will appear saying “Attach required documents’ |
| **Postconditions:** | POST-1. User will send updated application. |
| **Business Rules** | N/A |
| **Assumptions:** | User owns the property. |

### Module 9: Requests Management

Following are the tabular use cases for module 9 requests management

Table 95: Create Admin Account.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC1 |
| **Use Case Name:** | Create Admin Account |
| **Actors:** | Primary Actor: SCM  Secondary Actor: Admin |
| **Description:** | SCM will provide Admin account for managing employees in department |
| **Trigger:** | System is deployed |
| **Level:** | High |
| **Preconditions:** | N/A |
| **Includes:** | N/A |
| **Normal Flow:** | 1. SCM will provide an admin account to manage organization 2. Account will have a default username and password |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If admin enters invalid username prompt message will appear “Enter Valid Username’ 2. If user enters invalid password prompt message will appear “Enter Valid Password’ |
| **Postconditions:** | POST-1. Admin will be able to login with provided email and password for first time. |
| **Business Rules** | N/A |
| **Assumptions:** | Admin knows default username and password |

Table 96: First Login.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC2 |
| **Use Case Name:** | First Login |
| **Actors:** | Primary Actor: Admin, Employee |
| **Description:** | Actor will login with default username and password and change |
| **Trigger:** | Actor presses “login” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Actor has visited the portal |
| **Includes:** | M9-UC1 |
| **Normal Flow:** | 1. Actor Enters default username and password. 2. Actor sets new password. 3. Actor confirms new password. 4. Actor presses save changes. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Actor enters invalid username prompt message will appear “Enter Valid Username’ 2. If Actor enters invalid password prompt message will appear “Enter Valid Password’ 3. If password does not match the password requirement prompt message will appear “Password must have 8 characters including digits, alphabets and special character” |
| **Postconditions:** | POST-1. Admin will be able to login with new password. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors know the username and password. |

Table 97: Login.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC3 |
| **Use Case Name:** | Login |
| **Actors:** | Primary Actor: Admin, Employee |
| **Description:** | Actor will be able to login. |
| **Trigger:** | Actor presses “login” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Actor has visited the portal  PRE-2: Actor has logged in before |
| **Includes:** | M9-UC1, M9-UC2 |
| **Normal Flow:** | 1. Actor enters username. 2. Actor enters password. 3. Actor presses log in. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Actor enters invalid username prompt message will appear “Enter Valid Username’ 2. If Actor enters invalid password prompt message will appear “Enter Valid Password’ |
| **Postconditions:** | POST-1. Admin will be able to manage employee.  POST-2. Employee will be able to manage requests. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors know the username and password. |

Table 98: Forget Password.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC4 |
| **Use Case Name:** | Forget Password |
| **Actors:** | Primary Actor: Admin, Employee |
| **Description:** | Actor will be able reset password. |
| **Trigger:** | Actor presses “Forget Password” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Actor has visited the portal  PRE-2: Actor has logged in before |
| **Includes:** | M9-UC1, M9-UC2 |
| **Normal Flow:** | 1. Actor presses Forget Password. 2. Actor enters OTP received on email. 3. Actor enters new password. 4. Actor confirms new password. 5. Actor presses save changes |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Actor enters invalid email prompt message will appear “Enter Valid Email” 2. If Actor enters invalid OTP prompt message will appear “Enter Valid OTP” 3. If password does not match the password requirement prompt message will appear “Password must have 8 characters including digits, alphabets and special character” |
| **Postconditions:** | POST-1. Actor will be able to login with new password. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors has the working email |

Table 99: Update Profile.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC5 |
| **Use Case Name:** | Update Profile |
| **Actors:** | Primary Actor: Admin, Employee |
| **Description:** | Actor will be able to update profile. |
| **Trigger:** | Actor presses “Update Profile” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Actor has visited the portal  PRE-2: Actor has logged in before |
| **Includes:** | M9-UC1, M9-UC2 |
| **Normal Flow:** | 1. Actor presses Update Profile. 2. Actor changed the information they want to change. 3. Actor presses save changes |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Actor enters invalid email prompt message will appear “Enter Valid Email” 2. If password does not match the password requirement prompt message will appear “Password must have 8 characters including digits, alphabets and special character” |
| **Postconditions:** | POST-1. Actor will be able to Update Profile. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors has logged in. |

Table 100: Add Employee.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC6 |
| **Use Case Name:** | Add Employee |
| **Actors:** | Primary Actor: Admin |
| **Description:** | Admin will be click on Add Employee to add employee. |
| **Trigger:** | Admin presses “Add Employee” button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Admin has visited the portal  PRE-2: Admin has logged in before |
| **Includes:** | M9-UC1, M9-UC2 |
| **Normal Flow:** | 1. Admin presses Manage Employee. 2. Admin will see List of Employee 3. Admin selects Add Employee 4. Admin enters employee’s email 5. Admin selects employee role 6. Admin presses submit to add employee |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Employees are not added “No Employee Added” will be seen instead of the list |
| **Postconditions:** | POST-1. Employee will be able to login with username provided and default password |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 101: Employee Role.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC7 |
| **Use Case Name:** | Employee Role |
| **Actors:** | Primary Actor: Admin |
| **Description:** | Admin will be click on Manage Employee. |
| **Trigger:** | Admin changes role from dropdown. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Admin has visited the portal  PRE-2: Admin has logged in before  PER-3: Admin has created employee account. |
| **Includes:** | M9-UC1, M9-UC2, M9-UC6 |
| **Normal Flow:** | 1. Admin presses Manage Employee. 2. Admin will see List of Employee 3. Admin will change Employee role from dropdown |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Employees are not added “No Employee Added” will be seen instead of the list |
| **Postconditions:** | POST-1. Admin will be able to manage employee. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 102: Remove Employee.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC8 |
| **Use Case Name:** | Remove Employee |
| **Actors:** | Primary Actor: Admin |
| **Description:** | Admin will click on Manage Employee to Remove Employee. |
| **Trigger:** | Admin will be pressing ‘x’ button |
| **Level:** | High |
| **Preconditions:** | PRE-1: Admin has visited the portal  PRE-2: Admin has logged in before  PER-3: Admin has created employee account. |
| **Includes:** | M9-UC1, M9-UC2, M9-UC6 |
| **Normal Flow:** | 1. Admin presses Manage Employee. 2. Admin will see List of Employee 3. Admin will press ‘x’ button. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Employees are not added “No Employee Added” will be seen instead of the list |
| **Postconditions:** | POST-1. Admin will be able to manage employee. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 103: View Request.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC9 |
| **Use Case Name:** | View Request |
| **Actors:** | Primary Actor: Employee |
| **Description:** | Employee will see the requests details. |
| **Trigger:** | Employee will press request from the list. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Employee has visited the portal  PRE-2: Employee has logged in before  PER-3: User has sent request. |
| **Includes:** | M9-UC2, M9-UC3 |
| **Normal Flow:** | 1. Employee presses Manage Requests. 2. Employee will see List of Requests. 3. Employee clicks on request. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Requests are not received “No Requests” will be seen instead of the requests list |
| **Postconditions:** | POST-1. Employee will be able to see the request detail. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 104: Download/View Attachments.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC10 |
| **Use Case Name:** | Download/View Attachments |
| **Actors:** | Primary Actor: Employee |
| **Description:** | Employee will be able to Download/View Attachments sent by user with request. |
| **Trigger:** | Employee ‘Download/View Attachments’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Employee has visited the portal  PRE-2: Employee has logged in before  PER-3: User has sent request. |
| **Includes:** | M9-UC2, M9-UC3 |
| **Normal Flow:** | 1. Employee presses Download/View Attachments. 2. Attachments Open 3. Employee presses download button. 4. Employee selects download location. 5. Employee clicks save to save attachments. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Requests are not received “No Requests” will be seen instead of the requests list |
| **Postconditions:** | POST-1. Request verification process will start. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 105: Update Request.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC11 |
| **Use Case Name:** | Update Request |
| **Actors:** | Primary Actor: Employee |
| **Description:** | Employee will send user the update on requests. |
| **Trigger:** | Employee ‘Send Update’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Employee has visited the portal  PRE-2: Employee has logged in before  PER-3: User has sent request. |
| **Includes:** | M9-UC2, M9-UC3 |
| **Normal Flow:** | 1. Employee changes request status. 2. Employee types update message. 3. Employee clicks on send update. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Requests are not received “No Requests” will be seen instead of the requests list |
| **Postconditions:** | POST-1. Request update will be sent to user. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

Table 106: Terminate Request.

|  |  |
| --- | --- |
| **Use Case ID:** | M9-UC12 |
| **Use Case Name:** | Terminate Request |
| **Actors:** | Primary Actor: Employee |
| **Description:** | Employee will terminate the requests. |
| **Trigger:** | Employee ‘Terminate Request’ button. |
| **Level:** | High |
| **Preconditions:** | PRE-1: Employee has visited the portal  PRE-2: Employee has logged in before  PER-3: User has sent request. |
| **Includes:** | M9-UC2, M9-UC3 |
| **Normal Flow:** | 1. Employee changes status (Accepted/Rejected). 2. Employee terminates request. 3. Employee clicks on send update. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | 1. If Requests are not received “No Requests” will be seen instead of the requests list |
| **Postconditions:** | POST-1. Request update will be sent to user. |
| **Business Rules** | N/A |
| **Assumptions:** | Actors knows his employees. |

# Functional Requirements

M1-UC1: Description of FR-1.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC1: Description of FR-1.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.2 |
| **Title** | Enter Password |
| **Requirement** | The user will enter his password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.1.1 |
| **Priority** | High |

M1-UC1: Description of FR-1.1.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.3 |
| **Title** | Send OTP |
| **Requirement** | OTP will be sent on user’s email. |
| **Source** | Student |
| **Rationale** | OTP is required to verify working email. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.1.1, FR-1.1.2 |
| **Priority** | High |

M1-UC1: Description of FR-1.1.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.4 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP in given input field. |
| **Source** | Student |
| **Rationale** | OTP is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.1.1, FR-1.1.2, FR-1.1.3 |
| **Priority** | High |

M1-UC1: Description of FR-1.1.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.5 |
| **Title** | Enter Profile Info |
| **Requirement** | The user will enter his name in the given input field. |
| **Source** | Student |
| **Rationale** | Name is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.1.1, FR-1.1.2, FR-1.1.3, FR-1.1.4 |
| **Priority** | High |

M1-UC2: Description of FR-1.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC2: Description of FR-1.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.2 |
| **Title** | Enter Password |
| **Requirement** | The user will enter his password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.2.1 |
| **Priority** | High |

M1-UC2: Description of FR-1.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.3 |
| **Title** | Send OTP |
| **Requirement** | OTP will be sent on user’s email. |
| **Source** | Student |
| **Rationale** | OTP is required to verify working email. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.2.1, FR-1.2.2 |
| **Priority** | High |

M1-UC2: Description of FR-1.2.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.4 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP in given input field. |
| **Source** | Student |
| **Rationale** | OTP is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.2.1, FR-1.2.2, FR-1.2.3 |
| **Priority** | High |

M1-UC2: Description of FR-1.2.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.5 |
| **Title** | Enter Profile Info |
| **Requirement** | The user will enter his name in the given input field. |
| **Source** | Student |
| **Rationale** | Name is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.2.1, FR-1.2.2, FR-1.2.3, FR-1.2.4 |
| **Priority** | High |

M1-UC3: Description of FR-1.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.3.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to login the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC3: Description of FR-1.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.3.2 |
| **Title** | Enter Password |
| **Requirement** | The user will enter his password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.3.2 |
| **Priority** | High |

M1-UC4: Description of FR-1.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to login the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC4: Description of FR-1.4.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.2 |
| **Title** | Enter Password |
| **Requirement** | The user will enter his password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.4.1 |
| **Priority** | High |

M1-UC5: Description of FR-1.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to reset user password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC5: Description of FR-1.5.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.2 |
| **Title** | Send OTP |
| **Requirement** | OTP will be sent on user’s email. |
| **Source** | Student |
| **Rationale** | OTP is required to verify email. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.5.1 |
| **Priority** | High |

M1-UC5: Description of FR-1.5.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.3 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP in given input field. |
| **Source** | Student |
| **Rationale** | OTP is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.5.1, FR-1.5.2 |
| **Priority** | High |

M1-UC5: Description of FR-1.5.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.4 |
| **Title** | Enter New Password |
| **Requirement** | The user will enter his new password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login next time. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.5.1, FR-1.5.2, FR-1.5.3 |
| **Priority** | High |

M1-UC5: Description of FR-1.5.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.5 |
| **Title** | Confirm New Password |
| **Requirement** | The user will enter his new password again in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login next time. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.5.1, FR-1.5.2, FR-1.5.3, FR-1.5.4 |
| **Priority** | High |

M1-UC6: Description of FR-1.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.1 |
| **Title** | Enter Email |
| **Requirement** | The user will enter his email in the given input field. |
| **Source** | Student |
| **Rationale** | Email is required to reset user password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC6: Description of FR-1.6.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.2 |
| **Title** | Send OTP |
| **Requirement** | OTP will be sent on user’s email. |
| **Source** | Student |
| **Rationale** | OTP is required to verify email. |
| **Business Rule (if required)** | FR-1.6.1 |
| **Dependencies** | N/A |
| **Priority** | High |

M1-UC6: Description of FR-1.6.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.3 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP in given input field. |
| **Source** | Student |
| **Rationale** | OTP is required to register the user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.6.1, FR-1.6.2 |
| **Priority** | High |

M1-UC6: Description of FR-1.6.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.4 |
| **Title** | Enter New Password |
| **Requirement** | The user will enter his new password in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login next time. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.6.1, FR-1.6.2, FR-1.6.3 |
| **Priority** | High |

M1-UC6: Description of FR-1.6.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.5 |
| **Title** | Confirm New Password |
| **Requirement** | The user will enter his new password again in the given input field. |
| **Source** | Student |
| **Rationale** | Password is required to login next time. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.6.1, FR-1.6.2, FR-1.6.3, FR-1.6.4 |
| **Priority** | High |

M1-UC7: Description of FR-1.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.7.1 |
| **Title** | Update Profile |
| **Requirement** | The user will enter his new information in the given input fields. And press submit |
| **Source** | Student |
| **Rationale** | New Information is required to change profile. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC8: Description of FR-1.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.8.1 |
| **Title** | Update Profile |
| **Requirement** | The user will enter his new information in the given input fields. And press submit |
| **Source** | Student |
| **Rationale** | New Information is required to change profile. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC9: Description of FR-1.9.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.1 |
| **Title** | Profile Privacy |
| **Requirement** | The user will select privacy for all profile info from drop down provided. |
| **Source** | Student |
| **Rationale** | Profile privacy decides what information will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC9: Description of FR-1.9.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.2 |
| **Title** | Email Privacy |
| **Requirement** | The user will select privacy for email from drop down provided. |
| **Source** | Student |
| **Rationale** | Email privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.9.1 |
| **Priority** | Medium |

M1-UC9: Description of FR-1.9.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.3 |
| **Title** | Phone Privacy |
| **Requirement** | The user will select privacy for phone from drop down provided. |
| **Source** | Student |
| **Rationale** | Phone privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.9.1, FR-1.9.2 |
| **Priority** | Medium |

M1-UC9: Description of FR-1.9.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.4 |
| **Title** | Picture Privacy |
| **Requirement** | The user will select privacy for picture from drop down provided. |
| **Source** | Student |
| **Rationale** | Picture privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.9.1, FR-1.9.2, FR-1.9.3 |
| **Priority** | Medium |

M1-UC10: Description of FR-1.10.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.1 |
| **Title** | Profile Privacy |
| **Requirement** | The user will select privacy for all profile info from drop down provided. |
| **Source** | Student |
| **Rationale** | Profile privacy decides what information will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC10: Description of FR-1.10.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.2 |
| **Title** | Email Privacy |
| **Requirement** | The user will select privacy for email from drop down provided. |
| **Source** | Student |
| **Rationale** | Email privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.10.1 |
| **Priority** | Medium |

M1-UC10: Description of FR-1.10.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.3 |
| **Title** | Phone Privacy |
| **Requirement** | The user will select privacy for phone from drop down provided. |
| **Source** | Student |
| **Rationale** | Phone privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.10.1, FR-1.10.2 |
| **Priority** | Medium |

M1-UC10: Description of FR-1.10.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.4 |
| **Title** | Picture Privacy |
| **Requirement** | The user will select privacy for picture from drop down provided. |
| **Source** | Student |
| **Rationale** | Picture privacy decides whether it will be visible to public. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.10.1, FR-1.10.2, FR-1.10.3 |
| **Priority** | Medium |

M1-UC11: Description of FR-1.11.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.1 |
| **Title** | Help |
| **Requirement** | The user will select help & support. |
| **Source** | Student |
| **Rationale** | Help & Support page will help user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Low |

M1-UC11: Description of FR-1.11.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.2 |
| **Title** | Account Help |
| **Requirement** | The user will select Account help from help & support page. |
| **Source** | Student |
| **Rationale** | Account Help will help user in account related matters. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.11.1 |
| **Priority** | Low |

M1-UC11: Description of FR-1.11.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.3 |
| **Title** | Application Help |
| **Requirement** | The user will select Application help from help & support page. |
| **Source** | Student |
| **Rationale** | Application Help will help user in app usage. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.11.1, FR-1.11.2 |
| **Priority** | Low |

M1-UC12: Description of FR-1.12.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.1 |
| **Title** | Remove Account |
| **Requirement** | The user will select Remove Account button to remove account. |
| **Source** | Student |
| **Rationale** | Remove account provides user impurity that their data is no more with us as they have decided to leave our app. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Low |

M1-UC12: Description of FR-1.12.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.2 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP received via email in provided text field. |
| **Source** | Student |
| **Rationale** | The OTP adds the security layer to ensure user trying to remove account is same as the one creating it. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.12.1 |
| **Priority** | High |

M1-UC12: Description of FR-1.12.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.3 |
| **Title** | Enter Password |
| **Requirement** | The user will enter Password in provided text field. |
| **Source** | Student |
| **Rationale** | The Password adds the security layer to ensure user trying to remove account is same as the one creating it. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.12.1, FR-1.12.2 |
| **Priority** | High |

M1-UC13: Description of FR-1.13.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.13.1 |
| **Title** | Remove Account |
| **Requirement** | The user will select Remove Account button to remove account. |
| **Source** | Student |
| **Rationale** | Remove account provides user impurity that their data is no more with us as they have decided to leave our app. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Low |

M1-UC13: Description of FR-1.13.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.13.2 |
| **Title** | Enter OTP |
| **Requirement** | The user will enter OTP received via email in provided text field. |
| **Source** | Student |
| **Rationale** | The OTP adds the security layer to ensure user trying to remove account is same as the one creating it. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.13.1 |
| **Priority** | High |

M1-UC13: Description of FR-1.13.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.13.3 |
| **Title** | Enter Password |
| **Requirement** | The user will enter Password in provided text field. |
| **Source** | Student |
| **Rationale** | The Password adds the security layer to ensure user trying to remove account is same as the one creating it. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.13.1, FR-1.13.2 |
| **Priority** | High |

M1-UC14: Description of FR-1.14.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.14.1 |
| **Title** | Settings |
| **Requirement** | The user will select Settings button from side menu. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC14: Description of FR-1.14.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.14.2 |
| **Title** | Change Location |
| **Requirement** | The user will Enter new location in text field. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.14.1 |
| **Priority** | Medium |

M1-UC14: Description of FR-1.14.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.14.3 |
| **Title** | Current Location |
| **Requirement** | The user will select current location button. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.14.1 |
| **Priority** | Medium |

M1-UC14: Description of FR-1.14.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.14.4 |
| **Title** | Change Theme |
| **Requirement** | The user will select theme option from dropdown. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.14.1 |
| **Priority** | Medium |

M1-UC14: Description of FR-1.14.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.14.5 |
| **Title** | Logout |
| **Requirement** | The user account will be logged out. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.14.1 |
| **Priority** | Medium |

M1-UC15: Description of FR-1.15.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.15.1 |
| **Title** | Settings |
| **Requirement** | The user will select Settings button from side menu. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC15: Description of FR-1.15.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.15.2 |
| **Title** | Change Location |
| **Requirement** | The user will Enter new location in text field. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.15.1 |
| **Priority** | Medium |

M1-UC15: Description of FR-1.15.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.15.3 |
| **Title** | Current Location |
| **Requirement** | The user will select current location button. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.15.1 |
| **Priority** | Medium |

M1-UC15: Description of FR-1.15.4

|  |  |
| --- | --- |
| **Identifier** | FR-1.15.4 |
| **Title** | Change Theme |
| **Requirement** | The user will select theme option from dropdown. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.15.1 |
| **Priority** | Medium |

M1-UC15: Description of FR-1.15.5

|  |  |
| --- | --- |
| **Identifier** | FR-1.15.5 |
| **Title** | Logout |
| **Requirement** | The user account will be logged out. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-1.15.1 |
| **Priority** | Medium |

M1-UC16: Description of FR-1.16.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.16.1 |
| **Title** | Notifications |
| **Requirement** | The user will toggle all notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC16: Description of FR-1.16.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.16.2 |
| **Title** | Message Notifications |
| **Requirement** | The user will toggle messaging notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC16: Description of FR-1.16.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.16.3 |
| **Title** | Ads Notifications |
| **Requirement** | The user will toggle Ads notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC17: Description of FR-1.17.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.17.1 |
| **Title** | Notifications |
| **Requirement** | The user will toggle all notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC17: Description of FR-1.17.2

|  |  |
| --- | --- |
| **Identifier** | FR-1.17.2 |
| **Title** | Message Notifications |
| **Requirement** | The user will toggle messaging notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC17: Description of FR-1.17.3

|  |  |
| --- | --- |
| **Identifier** | FR-1.17.3 |
| **Title** | Ads Notifications |
| **Requirement** | The user will toggle Ads notifications as on or off. |
| **Source** | Student |
| **Rationale** | User will have the functionality to change application settings to match user’s needs. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M1-UC18: Description of FR-1.18.1

|  |  |
| --- | --- |
| **Identifier** | FR-1.18.1 |
| **Title** | Subscribe |
| **Requirement** | The user will subscribe to Newsletter. |
| **Source** | Student |
| **Rationale** | User will receive latest updates on SCM. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | Medium |

M2-UC1: Description of FR-2.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.1 |
| **Title** | Post Add |
| **Requirement** | Click on the post add button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC1: Description of FR-2.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.2 |
| **Title** | Select Add Category |
| **Requirement** | Click on the category dropdown. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC1: Description of FR-2.1.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.3 |
| **Title** | Enter Add Description |
| **Requirement** | Enter details about add in Textbox. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC1: Description of FR-2.1.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.4 |
| **Title** | Enter Price |
| **Requirement** | Enter price in text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC1: Description of FR-2.1.5

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.5 |
| **Title** | Enter Location |
| **Requirement** | Enter location where you add is located in location field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC1: Description of FR-2.1.6

|  |  |
| --- | --- |
| **Identifier** | FR-1.3.6 |
| **Title** | Click Post Button |
| **Requirement** | Press Post Button to post the final add. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.1 |
| **Title** | Post Add |
| **Requirement** | Click on the post add button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.2 |
| **Title** | Select Add Category |
| **Requirement** | Click on the category dropdown. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.3 |
| **Title** | Enter Add Description |
| **Requirement** | Enter details about add in Textbox. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.4 |
| **Title** | Enter Price |
| **Requirement** | Enter price in text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.5

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.5 |
| **Title** | Enter Location |
| **Requirement** | Enter location where you add is located in location field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC2: Description of FR-2.2.6

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.6 |
| **Title** | Click Post Button |
| **Requirement** | Press Post Button to post the final add. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to post an add. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC3: Description of FR-2.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.3.1 |
| **Title** | Edit Add |
| **Requirement** | User will change the fields to be updated. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user functionality to manage ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC4: Description of FR-2.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.4.1 |
| **Title** | Edit Add |
| **Requirement** | User will change the fields to be updated. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user functionality to manage ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC5: Description of FR-2.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.5.1 |
| **Title** | Delete Add |
| **Requirement** | User will press delete button in the ads list. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user functionality to manage ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC6: Description of FR-2.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.5.1 |
| **Title** | Delete Add |
| **Requirement** | User will press delete button in the ads list. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user functionality to manage ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC7: Description of FR-2.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.7.1 |
| **Title** | View Add |
| **Requirement** | User can view add details by clicking add short description box. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user the detailed information of ad. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC7: Description of FR-2.7.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.7.2 |
| **Title** | Close Add |
| **Requirement** | User can close add details by clicking cross button or back button. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in navigation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC8: Description of FR-2.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.8.1 |
| **Title** | View Add |
| **Requirement** | User can view add details by clicking add short description box. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user the detailed information of ad. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC7: Description of FR-2.8.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.8.2 |
| **Title** | Close Add |
| **Requirement** | User can close add details by clicking cross button or back button. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in navigation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC9: Description of FR-2.9.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.9.1 |
| **Title** | History |
| **Requirement** | User can see ads history in list by clicking history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC9: Description of FR-2.9.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.9.2 |
| **Title** | Clear All |
| **Requirement** | User can clear ads history in list by clicking clear all. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC9: Description of FR-2.9.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.9.3 |
| **Title** | Remove |
| **Requirement** | User can remove specific ad from history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC9: Description of FR-2.9.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.9.4 |
| **Title** | Toggle History |
| **Requirement** | User can see toggle between saving or not saving ads history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC10: Description of FR-2.10.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.10.1 |
| **Title** | History |
| **Requirement** | User can see ads history in list by clicking history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC10: Description of FR-2.10.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.10.2 |
| **Title** | Clear All |
| **Requirement** | User can clear ads history in list by clicking clear all. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC10: Description of FR-2.10.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.10.3 |
| **Title** | Remove |
| **Requirement** | User can remove specific ad from history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC10: Description of FR-2.10.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.10.4 |
| **Title** | Toggle History |
| **Requirement** | User can see toggle between saving or not saving ads history. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC11: Description of FR-2.11.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.11.1 |
| **Title** | Favorite Add |
| **Requirement** | User will click heart icon to favorite an add. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in saving ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC11: Description of FR-2.11.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.11.2 |
| **Title** | Favorites |
| **Requirement** | User can see ads favorited in list by clicking favorites. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC11: Description of FR-2.11.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.11.3 |
| **Title** | Clear All |
| **Requirement** | User can clear favorite ads in list by clicking clear all. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC11: Description of FR-2.11.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.11.4 |
| **Title** | Remove |
| **Requirement** | User can remove specific ad from favorites. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC12: Description of FR-2.12.1

|  |  |
| --- | --- |
| **Identifier** | FR-2.12.1 |
| **Title** | Favorite Add |
| **Requirement** | User will click heart icon to favorite an add. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in saving ads. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC12: Description of FR-2.12.2

|  |  |
| --- | --- |
| **Identifier** | FR-2.12.2 |
| **Title** | Favorites |
| **Requirement** | User can see ads favorited in list by clicking favorites. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC12: Description of FR-2.12.3

|  |  |
| --- | --- |
| **Identifier** | FR-2.12.3 |
| **Title** | Clear All |
| **Requirement** | User can clear favorite ads in list by clicking clear all. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M2-UC12: Description of FR-2.11.4

|  |  |
| --- | --- |
| **Identifier** | FR-2.12.4 |
| **Title** | Remove |
| **Requirement** | User can remove specific ad from favorites. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in managing history. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC1: Description of FR-3.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.1.1 |
| **Title** | Search Bar |
| **Requirement** | User will click on search bar to start searching. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC1: Description of FR-3.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.1.2 |
| **Title** | Text Field |
| **Requirement** | User will enter query in text field on search bar to start searching. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-3.1.1 |
| **Priority** | High |

M3-UC2: Description of FR-3.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.2.1 |
| **Title** | Search Bar |
| **Requirement** | User will click on search bar to start searching. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC2: Description of FR-3.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.2.2 |
| **Title** | Text Field |
| **Requirement** | User will enter query in text field on search bar to start searching. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-3.3.1 |
| **Priority** | High |

M3-UC3: Description of FR-3.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.3.1 |
| **Title** | Search Bar Icon |
| **Requirement** | User will click audio icon on search bar and start speaking. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC3: Description of FR-3.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.3.2 |
| **Title** | Text Field |
| **Requirement** | User’s speech will be converted to text and will be shown on search bar. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-3.3.1 |
| **Priority** | High |

M3-UC4: Description of FR-3.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.4.1 |
| **Title** | Search Bar Icon |
| **Requirement** | User will click audio icon on search bar and start speaking. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC4: Description of FR-3.4.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.4.2 |
| **Title** | Text Field |
| **Requirement** | User’s speech will be converted to text and will be shown on search bar. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-3.4.1 |
| **Priority** | High |

M3-UC4: Description of FR-3.4.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.4.2 |
| **Title** | Text Field |
| **Requirement** | User’s speech will be converted to text and will be shown on search bar. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-3.4.1 |
| **Priority** | High |

M3-UC5: Description of FR-3.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.5.1 |
| **Title** | Filters |
| **Requirement** | User will click on Filters button to open filter options. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC5: Description of FR-3.5.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.5.2 |
| **Title** | Slide Price Range |
| **Requirement** | User will slide on slider provided to adjust price range. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC5: Description of FR-3.5.3

|  |  |
| --- | --- |
| **Identifier** | FR-3.5.3 |
| **Title** | Select Location |
| **Requirement** | User will select location from dropdown. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC5: Description of FR-3.5.4

|  |  |
| --- | --- |
| **Identifier** | FR-3.5.4 |
| **Title** | Specify Category |
| **Requirement** | User will check the categories user wants to see. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC6: Description of FR-3.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.6.1 |
| **Title** | Filters |
| **Requirement** | User will click on Filters button to open filter options. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC6: Description of FR-3.6.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.6.2 |
| **Title** | Slide Price Range |
| **Requirement** | User will slide on slider provided to adjust price range. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC6: Description of FR-3.6.3

|  |  |
| --- | --- |
| **Identifier** | FR-3.6.3 |
| **Title** | Select Location |
| **Requirement** | User will select location from dropdown. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC7: Description of FR-3.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.7.1 |
| **Title** | Suggestions |
| **Requirement** | User will type on the text field in search bar. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC7: Description of FR-3.7.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.7.2 |
| **Title** | Generate Suggestions |
| **Requirement** | Text data from user’s search bar will be taken and used to fetch similar data from database. Then similar suggestions will be shown below search bar |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC8: Description of FR-3.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-3.8.1 |
| **Title** | Suggestions |
| **Requirement** | User will type on the text field in search bar. |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M3-UC8: Description of FR-3.8.2

|  |  |
| --- | --- |
| **Identifier** | FR-3.8.2 |
| **Title** | Generate Suggestions |
| **Requirement** | Text data from user’s search bar will be taken and used to fetch similar data from database. Then similar suggestions will be shown below search bar |
| **Source** | Student |
| **Rationale** | This requirement is there to provide user ease in searching. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC1: Description of FR-4.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.1 |
| **Title** | New Conversation |
| **Requirement** | User clicks on the ‘+’ button |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC1: Description of FR-4.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.2 |
| **Title** | Search Recipient |
| **Requirement** | User types recipient’s name in the text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.1.1 |
| **Priority** | High |

M4-UC1: Description of FR-4.1.3

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.3 |
| **Title** | Select Recipient |
| **Requirement** | User selects recipient from searched results. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.1.1, FR-4.1.2 |
| **Priority** | High |

M4-UC1: Description of FR-4.1.4

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.4 |
| **Title** | Chat |
| **Requirement** | User selects chat button from the viewing ad. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.1.1, FR-4.1.2 |
| **Priority** | High |

M4-UC2: Description of FR-4.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.1 |
| **Title** | New Conversation |
| **Requirement** | User clicks on the ‘+’ button |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC2: Description of FR-4.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.2 |
| **Title** | Search Recipient |
| **Requirement** | User types recipient’s name in the text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.2.1 |
| **Priority** | High |

M4-UC2: Description of FR-4.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.3 |
| **Title** | Select Recipient |
| **Requirement** | User selects recipient from searched results. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.2.1, FR-4.2.2 |
| **Priority** | High |

M4-UC2: Description of FR-4.2.4

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.4 |
| **Title** | Chat |
| **Requirement** | User selects chat button from the viewing ad. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to start a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-4.1.1, FR-4.1.2 |
| **Priority** | High |

M4-UC3: Description of FR-4.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.3.1 |
| **Title** | Delete Chat |
| **Requirement** | User selects delete button which appears after holding the chat for some time. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC4: Description of FR-4.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.4.1 |
| **Title** | Delete Chat |
| **Requirement** | User selects delete button which appears after holding the chat for some time. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC5: Description of FR-4.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.5.1 |
| **Title** | Archive Chat |
| **Requirement** | User selects archive button which appears after holding the chat for some time. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to archive a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC6: Description of FR-4.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.1 |
| **Title** | Archive Chat |
| **Requirement** | User selects archive button which appears after holding the chat for some time. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to archive a conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC7: Description of FR-4.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.7.1 |
| **Title** | See Archive Conversation |
| **Requirement** | User selects archive button which appears in the end of chat list. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see archived conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC9: Description of FR-4.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.8.1 |
| **Title** | See Archive Conversation |
| **Requirement** | User selects archive button which appears in the end of chat list. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see archived conversation. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC9: Description of FR-4.9.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.9.1 |
| **Title** | Send Text |
| **Requirement** | User types text on text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a text message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC10: Description of FR-4.10.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.10.1 |
| **Title** | Send Text |
| **Requirement** | User types text on text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a text message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.1 |
| **Title** | Send File |
| **Requirement** | User selects send file from the ‘attach’ button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.2 |
| **Title** | Select File type |
| **Requirement** | User selects file type from the popup. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.3

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.3 |
| **Title** | Send Image |
| **Requirement** | User selects Image from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.4

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.4 |
| **Title** | Camera |
| **Requirement** | User selects Camera and takes the picture/video. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.5

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.5 |
| **Title** | Send Video |
| **Requirement** | User selects Video from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.6

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.6 |
| **Title** | Send Audio |
| **Requirement** | User selects Audio from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC11: Description of FR-4.11.7

|  |  |
| --- | --- |
| **Identifier** | FR-4.11.7 |
| **Title** | Send File |
| **Requirement** | User selects any File from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.1 |
| **Title** | Send File |
| **Requirement** | User selects send file from the ‘attach’ button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.2 |
| **Title** | Select File type |
| **Requirement** | User selects file type from the popup. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.3

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.3 |
| **Title** | Send Image |
| **Requirement** | User selects Image from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.4

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.4 |
| **Title** | Camera |
| **Requirement** | User selects Camera and takes the picture/video. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.5

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.5 |
| **Title** | Send Video |
| **Requirement** | User selects Video from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.6

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.6 |
| **Title** | Send Audio |
| **Requirement** | User selects Audio from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC12: Description of FR-4.12.7

|  |  |
| --- | --- |
| **Identifier** | FR-4.12.7 |
| **Title** | Send File |
| **Requirement** | User selects any File from the device storage. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send a file message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC13: Description of FR-4.13.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.13.1 |
| **Title** | Send Location |
| **Requirement** | User selects send location button and is shown a map on screen. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send location. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC13: Description of FR-4.13.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.13.2 |
| **Title** | Location Coordinates |
| **Requirement** | User selects current location or drop pin. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send location. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC14: Description of FR-4.14.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.14.1 |
| **Title** | Send Location |
| **Requirement** | User selects send location button and is shown a map on screen. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send location. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC14: Description of FR-4.14.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.14.2 |
| **Title** | Location Coordinates |
| **Requirement** | User selects current location or drop pin. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send location. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC15: Description of FR-4.15.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.15.1 |
| **Title** | Paste Link |
| **Requirement** | User pastes link in the text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send link with previews. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC15: Description of FR-4.15.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.15.2 |
| **Title** | Link Preview |
| **Requirement** | Link preview will be shown above the text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send link with previews. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC16: Description of FR-4.16.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.16.1 |
| **Title** | Paste Link |
| **Requirement** | User pastes link in the text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send link with previews. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC16: Description of FR-4.16.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.16.2 |
| **Title** | Link Preview |
| **Requirement** | Link preview will be shown above the text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send link with previews. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC17: Description of FR-4.17.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.17.1 |
| **Title** | Delete Message |
| **Requirement** | User presses and holds a message and selects delete button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC17: Description of FR-4.17.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.17.2 |
| **Title** | Confirm |
| **Requirement** | User presses ok button to delete a message |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC18: Description of FR-4.18.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.18.1 |
| **Title** | Delete Message |
| **Requirement** | User presses and holds a message and selects delete button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC18: Description of FR-4.18.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.18.2 |
| **Title** | Confirm |
| **Requirement** | User presses ok button to delete a message |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC19: Description of FR-4.19.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.19.1 |
| **Title** | Delete Message |
| **Requirement** | User presses and holds a message and selects delete button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC19: Description of FR-4.19.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.19.2 |
| **Title** | Confirm |
| **Requirement** | User presses ok to all button to delete a message |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC20: Description of FR-4.20.1

|  |  |
| --- | --- |
| **Identifier** | FR-4.20.1 |
| **Title** | Delete Message |
| **Requirement** | User presses and holds a message and selects delete button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M4-UC20: Description of FR-4.20.2

|  |  |
| --- | --- |
| **Identifier** | FR-4.20.2 |
| **Title** | Confirm |
| **Requirement** | User presses ok to all button to delete a message |
| **Source** | Student |
| **Rationale** | This requirement is necessary to delete a message. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC1: Description of FR-5.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.1 |
| **Title** | Processing |
| **Requirement** | SCM will fetch user’s data. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC1: Description of FR-5.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.2 |
| **Title** | Update Model |
| **Requirement** | User’s data will be used to update learning model. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC2: Description of FR-5.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.1 |
| **Title** | Processing |
| **Requirement** | SCM will fetch user’s data. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC2: Description of FR-5.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.2 |
| **Title** | Update Model |
| **Requirement** | User’s data will be used to update learning model. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC3: Description of FR-5.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.1 |
| **Title** | Show Recommendations |
| **Requirement** | User’s will see relevant content in recommendations tab. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC4: Description of FR-5.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.4.1 |
| **Title** | Show Recommendations |
| **Requirement** | User’s will see relevant content in recommendations tab. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC5: Description of FR-5.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.5.1 |
| **Title** | Take Feedback |
| **Requirement** | User’s will mark recommendations as relevant or irrelevant. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M5-UC5: Description of FR-5.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-5.6.1 |
| **Title** | Take Feedback |
| **Requirement** | User’s will mark recommendations as relevant or irrelevant. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user relevant content. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC1: Description of FR-6.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.1.1 |
| **Title** | Pre-Built Models |
| **Requirement** | SCM will provide pre-built 3D Models for construction sites. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user 3D Models for homes. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC1: Description of FR-6.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-6.1.2 |
| **Title** | Show Models List |
| **Requirement** | User will click on 3D Models to see the models list. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user 3D Models for homes. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC2: Description of FR-6.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.1 |
| **Title** | View Model |
| **Requirement** | User will click on 3D Model to see the models. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user 3D Models for homes. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC2: Description of FR-6.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.2 |
| **Title** | Rotate Model |
| **Requirement** | User can swipe to rotate the model. |
| **Source** | Student |
| **Rationale** | This requirement helps user see the models from all sides by rotating display. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC2: Description of FR-6.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.3 |
| **Title** | Zoom |
| **Requirement** | User can pinch to zoom in and out. |
| **Source** | Student |
| **Rationale** | This requirement helps user see the models from all sides. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC3: Description of FR-6.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.1 |
| **Title** | View Model |
| **Requirement** | User will click on 3D Model to see the models. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to show user 3D Models for homes. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC3: Description of FR-6.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.2 |
| **Title** | Rotate Model |
| **Requirement** | User can swipe to rotate the model. |
| **Source** | Student |
| **Rationale** | This requirement helps user see the models from all sides by rotating display. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC3: Description of FR-6.3.3

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.3 |
| **Title** | Zoom |
| **Requirement** | User can pinch to zoom in and out. |
| **Source** | Student |
| **Rationale** | This requirement helps user see the models from all sides. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC4: Description of FR-6.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.4.1 |
| **Title** | Save Model |
| **Requirement** | User will press save button to save model. |
| **Source** | Student |
| **Rationale** | This requirement helps user save the models for later use. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC5: Description of FR-6.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.5.1 |
| **Title** | Save Model |
| **Requirement** | User will press save button to save model. |
| **Source** | Student |
| **Rationale** | This requirement helps user save the models for later use. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC6: Description of FR-6.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.6.1 |
| **Title** | Share Model |
| **Requirement** | User will press share button to share model. |
| **Source** | Student |
| **Rationale** | This requirement helps user share the models with other users. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC6: Description of FR-6.6.2

|  |  |
| --- | --- |
| **Identifier** | FR-6.6.2 |
| **Title** | Sharing options |
| **Requirement** | User will select option from sharing options. |
| **Source** | Student |
| **Rationale** | This requirement helps user share the models with other users. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC7: Description of FR-6.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-6.7.1 |
| **Title** | Share Model |
| **Requirement** | User will press share button to share model. |
| **Source** | Student |
| **Rationale** | This requirement helps user share the models with other users. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M6-UC6: Description of FR-6.7.2

|  |  |
| --- | --- |
| **Identifier** | FR-6.7.2 |
| **Title** | Sharing options |
| **Requirement** | User will select option from sharing options. |
| **Source** | Student |
| **Rationale** | This requirement helps user share the models with other users. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC1: Description of FR-7.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.1 |
| **Title** | Make AR Objects |
| **Requirement** | SCM will create AR objects that will be used for AR decor. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC1: Description of FR-7.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.2 |
| **Title** | Show Objects |
| **Requirement** | User will click on objects list to see objects available. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC2: Description of FR-7.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.2.1 |
| **Title** | Select Object |
| **Requirement** | User will select the object by clicking on object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC3: Description of FR-7.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.3.1 |
| **Title** | Move by Drag |
| **Requirement** | User will press and hold the object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC3: Description of FR-7.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-7.3.2 |
| **Title** | Move by Phone |
| **Requirement** | User will move the phone to move the object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC4: Description of FR-7.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.4.1 |
| **Title** | Resize |
| **Requirement** | User will pinch to resize the object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC5: Description of FR-7.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.5.1 |
| **Title** | Place Object |
| **Requirement** | User will select ‘Place’ button. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC6: Description of FR-7.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.6.1 |
| **Title** | Rotate |
| **Requirement** | User will press and hold ‘rotate’ icon and swipe on screen to rotate object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M7-UC7: Description of FR-7.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-7.7.1 |
| **Title** | Remove |
| **Requirement** | User will select ‘Remove’ button on object. |
| **Source** | Student |
| **Rationale** | This requirement helps user virtually visualize the design. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC1: Description of FR-8.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.1.1 |
| **Title** | Select Authority |
| **Requirement** | User will select authority from options provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to select receiving government body. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC1: Description of FR-8.1.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.1.2 |
| **Title** | Enter CNIC |
| **Requirement** | User will enter CNIC in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-8.1.1 |
| **Priority** | High |

M8-UC1: Description of FR-8.1.3

|  |  |
| --- | --- |
| **Identifier** | FR-8.1.3 |
| **Title** | Enter Address |
| **Requirement** | User will enter address in text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC1: Description of FR-8.1.4

|  |  |
| --- | --- |
| **Identifier** | FR-8.1.4 |
| **Title** | Attach Requirements |
| **Requirement** | User will attach requirements in pdf or image format. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC2: Description of FR-8.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.2.1 |
| **Title** | Select Authority |
| **Requirement** | User will select authority from options provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to select receiving government body. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC2: Description of FR-8.2.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.2.2 |
| **Title** | Enter CNIC |
| **Requirement** | User will enter CNIC in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-8.1.1 |
| **Priority** | High |

M8-UC2: Description of FR-8.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-8.2.3 |
| **Title** | Enter Address |
| **Requirement** | User will enter address in text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC2: Description of FR-8.2.4

|  |  |
| --- | --- |
| **Identifier** | FR-8.2.4 |
| **Title** | Attach Requirements |
| **Requirement** | User will attach requirements in pdf or image format. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC3: Description of FR-8.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.3.1 |
| **Title** | Address Repetitions |
| **Requirement** | SCM verifies if there is any other application for same address. |
| **Source** | Student |
| **Rationale** | This requirement is necessary because one address can have only one application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC3: Description of FR-8.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.3.2 |
| **Title** | CNIC Repetitions |
| **Requirement** | SCM verifies if the applications against CNIC are not more than five. |
| **Source** | Student |
| **Rationale** | This requirement is necessary because one CNIC can have only five applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC4: Description of FR-8.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.4.1 |
| **Title** | Address Repetitions |
| **Requirement** | SCM verifies if there is any other application for same address. |
| **Source** | Student |
| **Rationale** | This requirement is necessary because one address can have only one application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC4: Description of FR-8.4.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.4.2 |
| **Title** | CNIC Repetitions |
| **Requirement** | SCM verifies if the applications against CNIC are not more than five. |
| **Source** | Student |
| **Rationale** | This requirement is necessary because one CNIC can have only five applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC5: Description of FR-8.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.5.1 |
| **Title** | Manage Application |
| **Requirement** | User will press ‘Manage Applications’ button |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see a list of applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC6: Description of FR-8.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.6.1 |
| **Title** | Manage Application |
| **Requirement** | User will press ‘Manage Applications’ button |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see a list of applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC7: Description of FR-8.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.7.1 |
| **Title** | View Application |
| **Requirement** | User will click on applications |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see detail of applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC8: Description of FR-8.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.8.1 |
| **Title** | View Application |
| **Requirement** | User will click on applications |
| **Source** | Student |
| **Rationale** | This requirement is necessary to see detail of applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC9: Description of FR-8.9.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.9.1 |
| **Title** | Cancel Application |
| **Requirement** | User will click on ‘cancel’ button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to cancel sent applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC10: Description of FR-8.10.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.10.1 |
| **Title** | Cancel Application |
| **Requirement** | User will click on ‘cancel’ button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to cancel sent applications. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC11: Description of FR-8.11.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.11.1 |
| **Title** | Receive Update |
| **Requirement** | SCM will receive update for application. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to update user about application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC11: Description of FR-8.11.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.11.2 |
| **Title** | Inform User |
| **Requirement** | SCM will inform user about update. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to update user about application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC12: Description of FR-8.12.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.12.1 |
| **Title** | Receive Update |
| **Requirement** | SCM will receive update for application. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to update user about application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC12: Description of FR-8.12.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.12.2 |
| **Title** | Inform User |
| **Requirement** | SCM will inform user about update. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to update user about application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC13: Description of FR-8.13.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.13.1 |
| **Title** | Change CNIC |
| **Requirement** | User will enter CNIC in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-8.1.1 |
| **Priority** | High |

M8-UC13: Description of FR-8.13.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.13.2 |
| **Title** | Change Address |
| **Requirement** | User will enter address in text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC1: Description of FR-8.13.3

|  |  |
| --- | --- |
| **Identifier** | FR-8.13.3 |
| **Title** | Attach Requirements |
| **Requirement** | User will attach requirements in pdf or image format. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC13: Description of FR-8.14.1

|  |  |
| --- | --- |
| **Identifier** | FR-8.14.1 |
| **Title** | Change CNIC |
| **Requirement** | User will enter CNIC in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | FR-8.1.1 |
| **Priority** | High |

M8-UC13: Description of FR-8.14.2

|  |  |
| --- | --- |
| **Identifier** | FR-8.14.2 |
| **Title** | Change Address |
| **Requirement** | User will enter address in text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M8-UC14: Description of FR-8.14.3

|  |  |
| --- | --- |
| **Identifier** | FR-8.14.3 |
| **Title** | Attach Requirements |
| **Requirement** | User will attach requirements in pdf or image format. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send application. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC1: Description of FR-9.1.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.1.1 |
| **Title** | Admin Account |
| **Requirement** | SCM will provide default admin username and password. |
| **Source** | Student |
| **Rationale** | Account will have a default username and password |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC2: Description of FR-9.2.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.2.1 |
| **Title** | Enter Username |
| **Requirement** | Actor enters username in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC2: Description of FR-9.2.3

|  |  |
| --- | --- |
| **Identifier** | FR-9.2.3 |
| **Title** | Enter Password |
| **Requirement** | Actor enters password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC2: Description of FR-9.2.4

|  |  |
| --- | --- |
| **Identifier** | FR-9.2.4 |
| **Title** | Click Login |
| **Requirement** | Actor presses log in button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC2: Description of FR-9.2.5

|  |  |
| --- | --- |
| **Identifier** | FR-9.2.5 |
| **Title** | New Password |
| **Requirement** | Actor enters new password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC2: Description of FR-9.2.6

|  |  |
| --- | --- |
| **Identifier** | FR-9.2.6 |
| **Title** | Confirm Password |
| **Requirement** | Actor confirms new password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC3: Description of FR-9.3.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.3.1 |
| **Title** | Enter Username |
| **Requirement** | Actor enters username in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC3: Description of FR-9.3.2

|  |  |
| --- | --- |
| **Identifier** | FR-9.3.2 |
| **Title** | Enter Password |
| **Requirement** | Actor enters password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to log in. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC4: Description of FR-9.4.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.4.1 |
| **Title** | Forget password |
| **Requirement** | Actor presses forget password button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to set new password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC4: Description of FR-9.4.2

|  |  |
| --- | --- |
| **Identifier** | FR-9.4.2 |
| **Title** | Enter OTP |
| **Requirement** | Actor enters OTP in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to set new password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC4: Description of FR-9.4.3

|  |  |
| --- | --- |
| **Identifier** | FR-9.4.3 |
| **Title** | New Password |
| **Requirement** | Actor enters new password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to set new password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC4: Description of FR-9.4.4

|  |  |
| --- | --- |
| **Identifier** | FR-9.4.4 |
| **Title** | Confirm Password |
| **Requirement** | Actor confirms new password in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to set new password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC5: Description of FR-9.5.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.5.1 |
| **Title** | Update Profile |
| **Requirement** | Actor changes the fields they want to update. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to set new password. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC6: Description of FR-9.6.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.6.1 |
| **Title** | Add Employee |
| **Requirement** | Admin clicks on Add Employee button. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to add new employee. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC6: Description of FR-9.6.2

|  |  |
| --- | --- |
| **Identifier** | FR-9.6.2 |
| **Title** | Email |
| **Requirement** | Admin types employee email in provided text field. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to add new employee. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC6: Description of FR-9.6.3

|  |  |
| --- | --- |
| **Identifier** | FR-9.6.2 |
| **Title** | Role |
| **Requirement** | Admin selects employee role from dropdown menu. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to add new employee. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC7: Description of FR-9.7.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.7.1 |
| **Title** | Employee Role |
| **Requirement** | Admin selects employee role from dropdown menu. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to add new employee. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC8: Description of FR-9.8.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.8.1 |
| **Title** | Remove Employee |
| **Requirement** | Admin presses ‘x’ button ahead of employee info in employee list. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to add new employee. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC9: Description of FR-9.9.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.9.1 |
| **Title** | View Requests |
| **Requirement** | Employee presses the request they want to view. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to view the request. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC10: Description of FR-9.10.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.10.1 |
| **Title** | View Attachments |
| **Requirement** | Employee presses Attachments button to view the attachments. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to view the request. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC10: Description of FR-9.10.2

|  |  |
| --- | --- |
| **Identifier** | FR-9.10.2 |
| **Title** | Download Attachments |
| **Requirement** | Employee presses Download Attachments button to download the attachments. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to save the requests attachments. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC10: Description of FR-9.10.3

|  |  |
| --- | --- |
| **Identifier** | FR-9.10.3 |
| **Title** | Save Location |
| **Requirement** | Employee navigates to save location to save the attachments. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to save the requests attachments. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC11: Description of FR-9.11.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.11.1 |
| **Title** | Update Request |
| **Requirement** | Employee selects update status of request from dropdown menu. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send the request update to user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC11: Description of FR-9.11.2

|  |  |
| --- | --- |
| **Identifier** | FR-9.11.2 |
| **Title** | Update Message |
| **Requirement** | Employee types update message in text field provided. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send the request update to user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

M9-UC12: Description of FR-9.12.1

|  |  |
| --- | --- |
| **Identifier** | FR-9.12.1 |
| **Title** | Terminate Request |
| **Requirement** | Employee selects terminate status from drop down as accepted or rejected. |
| **Source** | Student |
| **Rationale** | This requirement is necessary to send the request update to user. |
| **Business Rule (if required)** | N/A |
| **Dependencies** | N/A |
| **Priority** | High |

# Non-Functional Requirements

## Reliability

The Smart Construction Manager will be a reliable software in terms of execution. The MTBF will be one year. the failures might occur due to server timeouts, request management or system update.

## Usability

*USE-1: the SCM will allow user with a walkthrough to use the application.*

*USE-2: After signing up user will be able to view, select certain location with a user-friendly UI.*

*USE-3: User will be given a popup every time they select a confirmation option regarding any option to ensure error avoidance.*

*USE-4: Account recovery options will be provided for user in case of forgetting password, through mail and cell no.*

*USE-5: The user will be able to interact with sellers/buyers, Govt bodies & construction companies to garner the required information and perform the consequent actions efficiently.*

*USE-6: User can access and view the status of pending requests, moreover user can view all the former projects and their related information. User can access their account through multiple platforms.*

## 

## Performance

*PER-1: User’s profile will be loaded within 4-5 sec on a speed of 10mbps and higher.*

*PER-2: The request for the forwarding letter might take up to 30-60sec depending upon the response from the concerned server.*

*PER-3: System can simultaneously facilitate 1000 users without any delay, however response time might vary for a larger figure.*

*PER-4: The request to check activation status for any option might take up to 30-60sec.*

## Security

*SEC-1: The webpage must be HTTPS with additional security layer.*

*SEC-2: Captcha will have to completed in case of inactivity.*

*SEC-3: Website SEO will be done to prevent hacking attacks.*

## Scalability

1. Smart Construction Manager right now is targeted towards CDA, in future it will support multiple development authorities
2. SCM can be scaled to global level and support development authorities all around Pakistan and not just Islamabad.

## Availability

Smart Construction Manager will be completely available and can be used anywhere anytime.

## Responsive

1. SCM will be totally responsive supporting:
   1. extra small (less than 576px);
   2. small (576-768px);
   3. medium (768-992px);
   4. large (992-1200px);
   5. extra-large screens (1200px and Greater).
2. The features available on both web and mobile app, will be designed in three steps, small medium and large.

## Recoverability

SCM will provide the client complete account recovery options.

## Manageability

1. SCM provides friendly user interfaces to manage user data
2. User will have proper tabular view of applications they want to manage.
3. Admin portal will also have requests in proper tabular format.

# External Interface Requirements

Most of our project requires to be built from scratch. We will be using our own APIs to handle data transfer. But for location we will use Geolocation API (Google’s API for location).

## User Interfaces

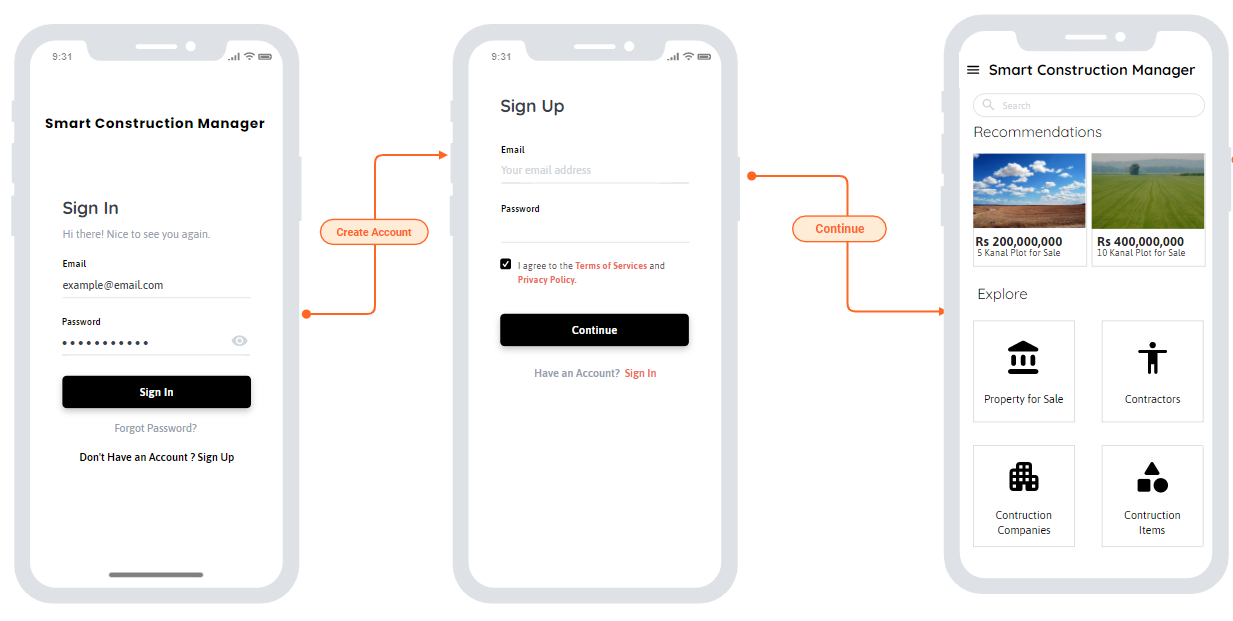


Figure 2: Mobile Home

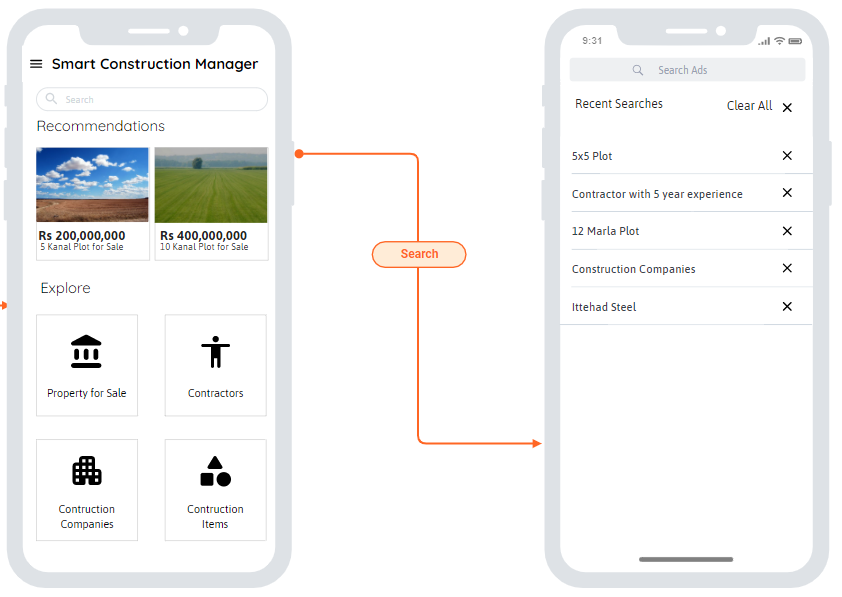


Figure 3: Mobile Search

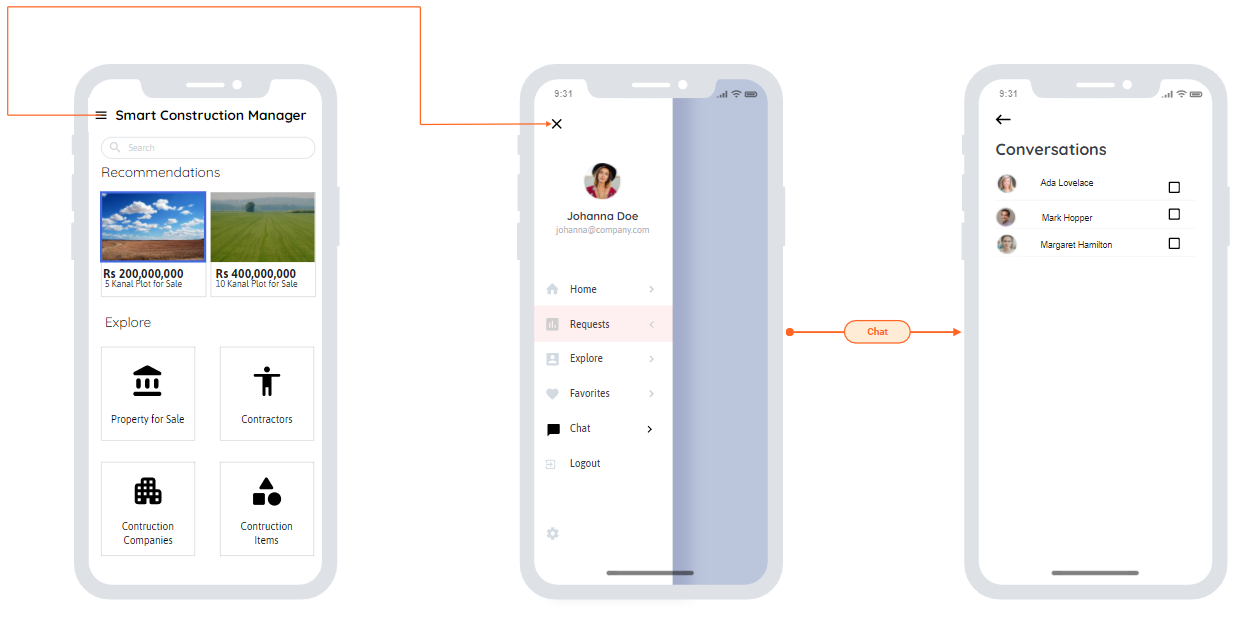


Figure 4: Mobile Chat

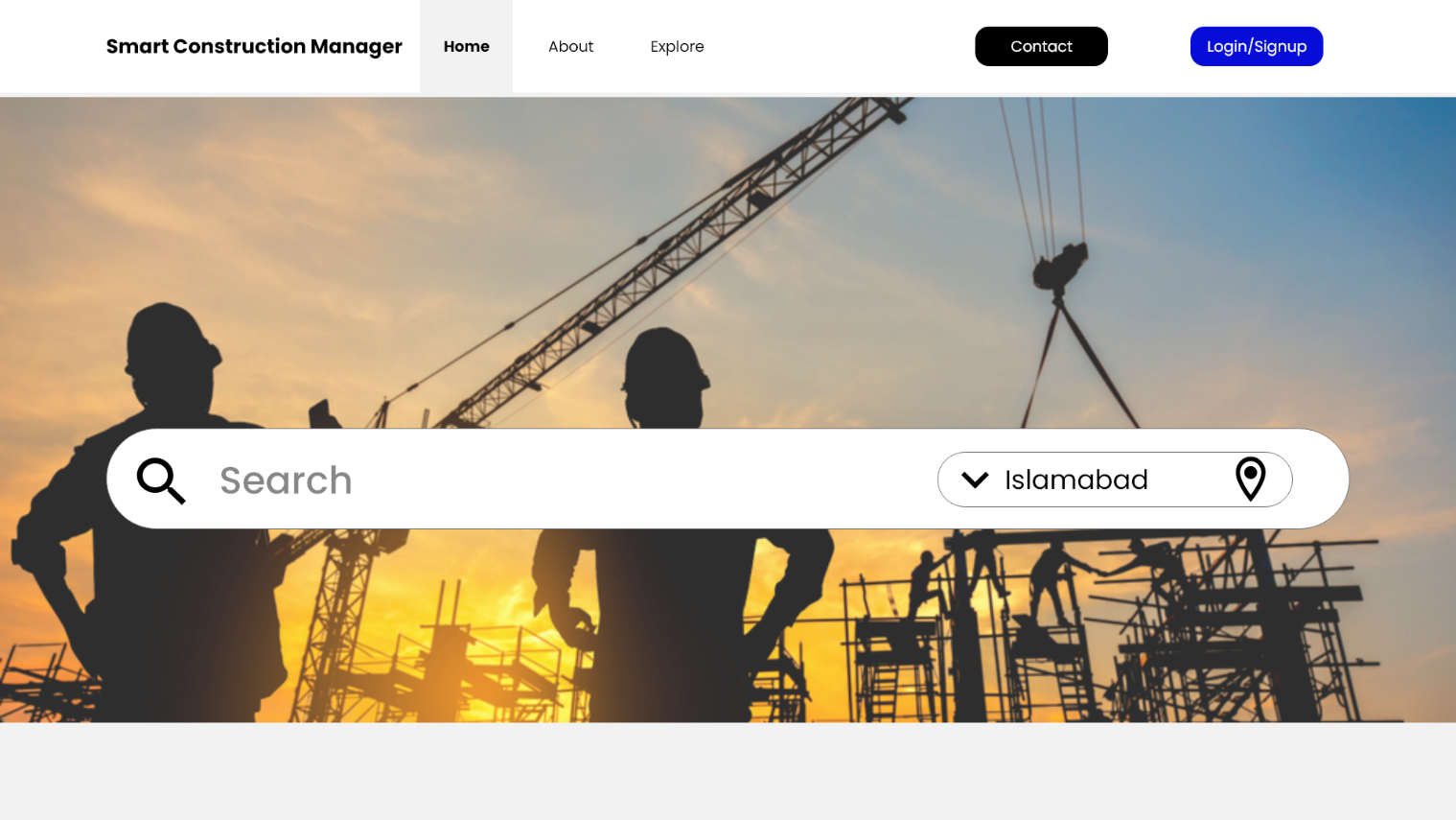


Figure 5: Web Home Interface

## Software Interfaces

The application uses MongoDB Database Management System to store public posts.

The application uses React JS for front end designing in web.

The application uses Express JS for back end development.

The application uses React Native for Mobile Development.

The application stores project data in JSON format to enable easy integration with 3rd party applications.

## Hardware Interfaces

The application requires Android Mobile device with at least Android 6.0, an IOS device with minimum IOS 9 or any desktop computer capable of running a Web Browser.

## Communication Interfaces

The application requires active internet connection which can be achieved in several ways. The application user must have working email or phone number in order to fully take advantage of the application.

# Project Gantt Chart

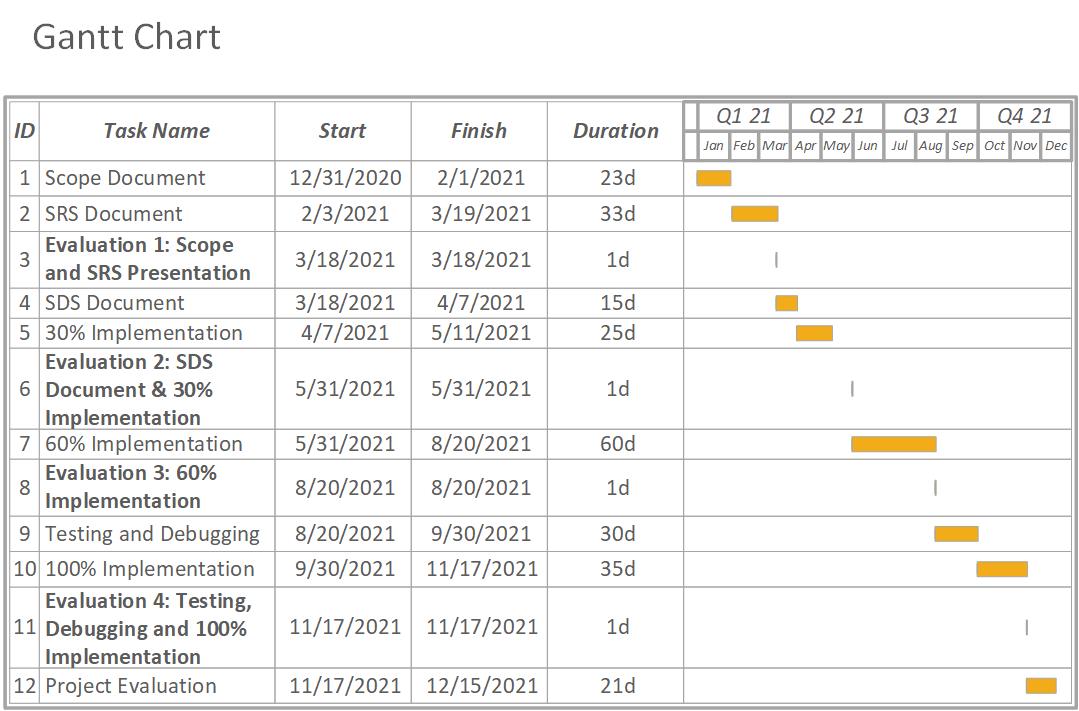


Figure 6: Gantt Chart for Targeted Project

# Conclusion

Smart Construction Manager garners the needs and requirements in each and every detail in the SRS document. Each Requirement Mentioned in the form of use cases is carefully analyzed from both Patron & Clients Perspective. The careful analysis of requirements provides Users with a sophisticated system ensuring ease in the process of construction and other commodities and forming invariably an efficient system. So, the document shows how we are planning to take our project in coming year. We will be implementing each part of our project according to the Gantt chart mentioned above and are fully motivated to complete the project.

# Appendices

SCM: Smart Construction Manager.

# References

* 1. CDA, Procedures (SOPs), https://www.cda.gov.pk/resource\_center/procedures.asp#proc8, 3/7/2021**. (web site)**

# Plagiarism Report

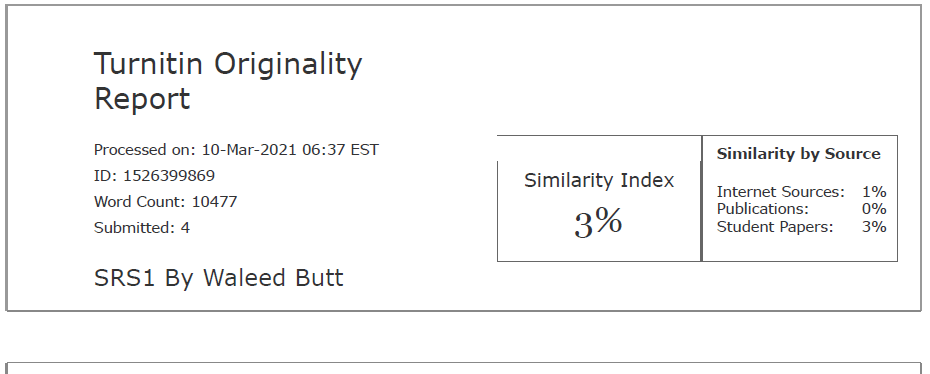


Figure 7: Turnitin Plagiarism Report