



COMSATS University Islamabad (CUI)

Assignment-02

CLO-2

Software Requirement Specification (SRS DOCUMENT)

for

Project Title
XOTRON

Version 1.0

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1. Introduction

This chapter provides the overview of the project, in this chapter we discussed the vision statement of AI chat bot and its limitations, what we are going to deliver, tool and technologies which we used to build Chatbot and how this project related to our course module.

Additionally, businesses that operate, gather a lot of data, and depend on making quick judgments in real time need to mix AI and intelligent bots. Therefore, a chatbot system will be quite useful in this setting. The ease with which those who dislike chatbots can be connected to actual personnel is one of their best features. The flexibility to switch between assisted and unassisted selling and the choice to engage a human sales assistant when necessary is one of a sales chatbot's most crucial capabilities. Thanks to chatbots, businesses can now provide more to their online clients, frequently for less money. The use of chatbots in many areas of business increases communication rates, customer satisfaction, and workflow.

1.1 Purpose

This document's primary goal is to give a thorough description of the application. In order to effectively accomplish this project, all application functionalities will be listed in this document. The project "AI Chatbot" is described in general terms in this paper, together with its functional and nonfunctional requirements, user interfaces, attributes, and use case diagrams. The document is meant for documentation writers, users, and project managers.

1.2 Modules

Module1: Profile management/ Registration page:

New users can create an account by entering their name, phone number, email address and password. Their ID will be created, and they will be provided with a username and password. By entering his username and password, the user can log in.

Sign Up

This will enable the new users/patients to sign up for a new account on the application.

Sign In

This use case will allow the users/patients to sign-in or log-in for already registered account

Change Avatar

This use case allows the new users/patients to change the avatar the user selected during sign-up on the app.

Change Password

This use case allows the new users/patients to change password of the account.

Forgot Password

This use case allows the users/patients to reset the password.

View Profile

This use case allows the new users/patients to view his profile and information

Logout

This use case allows the user to logout.

Module 2: Daily base Communication:

In this module the daily communication of user with the bot will be managed and displayed.

User will be able to chat with the bot and will receive auto generated messages from the bot.

Navigate to Chat Box

Through this action user can navigate to the chat box and can chat with the bot.

Display daily auto generated messages.

Through this action bot will generate a new message in chat box after every 24 hours to interact with the user and the system will display that message on screen

Chat Replies

Through this action bot will reply to user's messages after going through some machine learning techniques and then retrieving some data from data base (if related data is available) the system will display the resultant reply to the user

Refresh Chat Box

Through this action bot can refresh the chat box.

Module 3: Registered People Management:

Email id

The email id is kept and managed here.

Customers Data

Customer private and personal data is kept and managed here.

Customers conversations

The conversations among the bot and the customer are kept and managed in this module.

Customers password

The Customers password details are in this module.

Customer problems

All customer problems are added in this module.

Module 4 Bot training

This module will primarily handle the process of training our bot with a related data set. The bot will learn what kind of response to give to what kind of message, and the trained set will be stored in a database so that machine learning algorithms can evaluate the messages.

Pre-processed info

In this data related to the daily routine and daily health problems and their recommended solution. Bot will train to the data provided.

Validating of users Messages

When a user sends a message, the message's validity is checked before any ML techniques are applied. If the message contains all special characters, more special characters, or a message that is too short, the system will reject it.

Message Replies

after the process bot will receive the message and bot will try to find a reply for the particular message.

Data storage

The messages and other data must be organized Ly stored in a data base following all operations on the sample messages and incoming user messages, which will be done in this section.

Module 5: Health care

Daily health form

The user will be able to complete a form with some basic questions about health by taking this action. After completing the form, the user will be given recommendations for self-recovery exercises.

Analysis Form

By performing this action, the system will examine the form in accordance with the algorithm, draw conclusions from the form, and then recommend exercises to the user based on the condition.

Exercises

By taking this action, the system will look over the form and tell the user which exercises are best for them.

Every possible solution or exercise

The user can use this action to view all the exercises and solutions, then user move on to any solution.

Relaxation stuff

The user can be able to listen the music or quranic verses for relaxation.

Medication

Suggest the user specific medicines

Module 6: Chatbot Analytics

Number of unique users

Number of daily messages

This will contain number of daily messages.

Activity status

Number of hours spent on the site or the app.

Chat history

All the previous messages and problems

Clear Chat history

Gives an option of Clearing chat history.

Discover busiest period

Using heatmap to find when user is most active.

Clear Chat history

Module 7: Generals

Feeling Alone need to talk

User will have a company when feeling alone

Personal diary

In this user will be able to maintain his personal diary. Can add things he likes.

Motivational support

Issues other than health will be entertained.

Education help

User can share the queries regarding studies and get help.

Module 8: Sentiment analysis

User input

User talk and conversation

Recognizing the sentiment

How the user is feeling

NLP

This bot will be able to comprehend user messages, extract keywords from messages, and possibly generate messages that can be read by humans. Spell checking and other aspects will also be examined.

Intensity of emotion

Judging the intensity of the emotion by the user's response

Detecting range of emotion

Range of emotion is detected

Relevant reply

There is a relevant reply

Module 9: Personal assistance

Daily schedule

Personal assistance is done daily.

Reminders

Help User to set reminders

Routine planner

A routine planner is present

Module 10: The Help and Support

Guide for user

Allows user to view the guideline to use the system.

Tutorials

Having video tutorials

report issues

allows user to report any issue regarding anything and submit

Send feedback

allows user to send feedback regarding the application

1.3 Overview

This subsection should describe what the rest of the **SRS** contains and explain how the document is organized.

2. Overall Description

This section presents a high-level overview of the product and the environment in which it will be used, the anticipated users, and known constraints, assumptions, and dependencies.

2.1 Product Perspective

Many firms will provide customer help using our chatbot system. Customers will have constant access to the chatbot system throughout the day. will enable people to submit their questions at any moment. In order to maintain their security, our chatbot system will only ask for information that is necessary to address their problems or provide a customized experience. to increase the value of client communications. By using verbal prompts and phrase structures, a chatbot system will be able to understand the client's mindset. For health-related questions, the chatbot system will use a trained Bot that can comprehend the user's issue and attempt to provide a suitable answer.

2.2 Operating Environment

OE-1: AI Chatbot is an android and IOS based mobile application which will perfectly work on all versions of android and IOS on smartphones.

OE-2: It will operate in all famous web browsers; Google Chrome, Microsoft Internet Explorer, Safari, Mozilla Firefox, Opera, Torr etc.

2.3 Design and Implementation Constraints

CO-1: Business users must use their predefined credentials to login into the application.

CO-2: The system shall use email/password for signup/login feature.

CO-3: The user should have a reliable internet connection to access.

CO-4The app only uses and understands English language

3. Requirement Identifying Technique

This section describes the requirements identifying technique(s) which further help to derive functional requirements specification. The selection of the technique(s) will depend on the type of project. For instance,

- **Use case (use case diagram + detail use case)** is an effective technique for interactive enduser applications.
- **Event- response table** is for real-time system in which most of the functionalities are performed at backend.
- **Storyboarding** for graphically intensive applications.

Examples of above techniques are given in Appendix A

3.1 Use Case(s) Diagram:

**Create Use Case Diagrams of your system. Create diagrams as per actor Role.
Create Use Case Diagram Using MS VISIO as per UML standard notations**

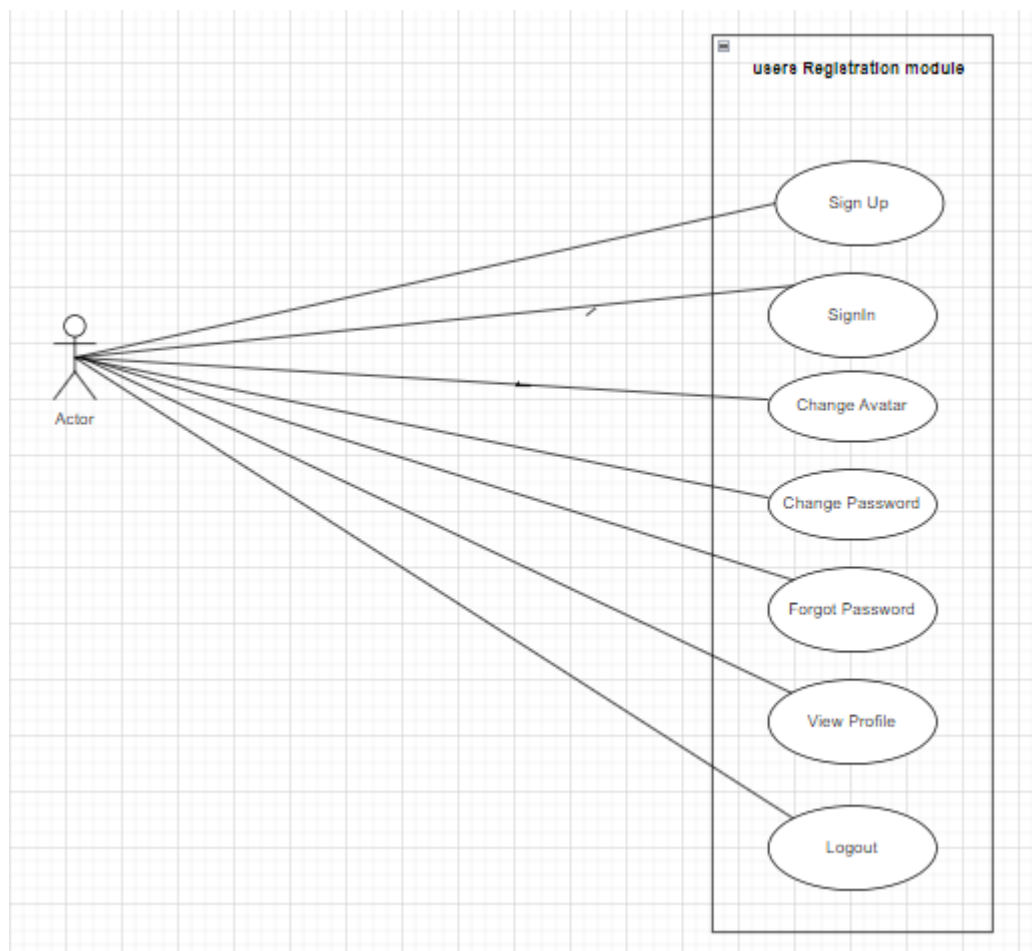


Figure 1: This use case Diagram shows network Registration management.

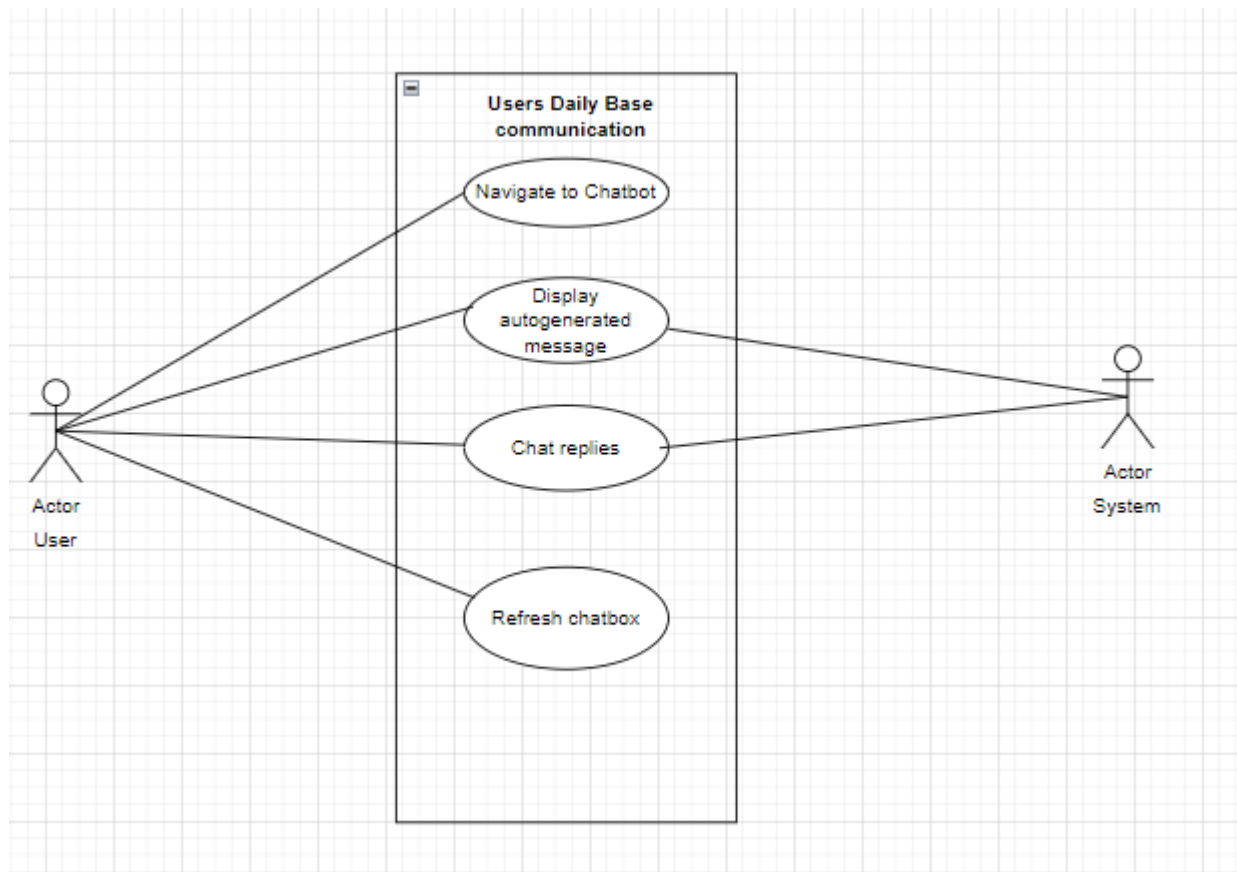
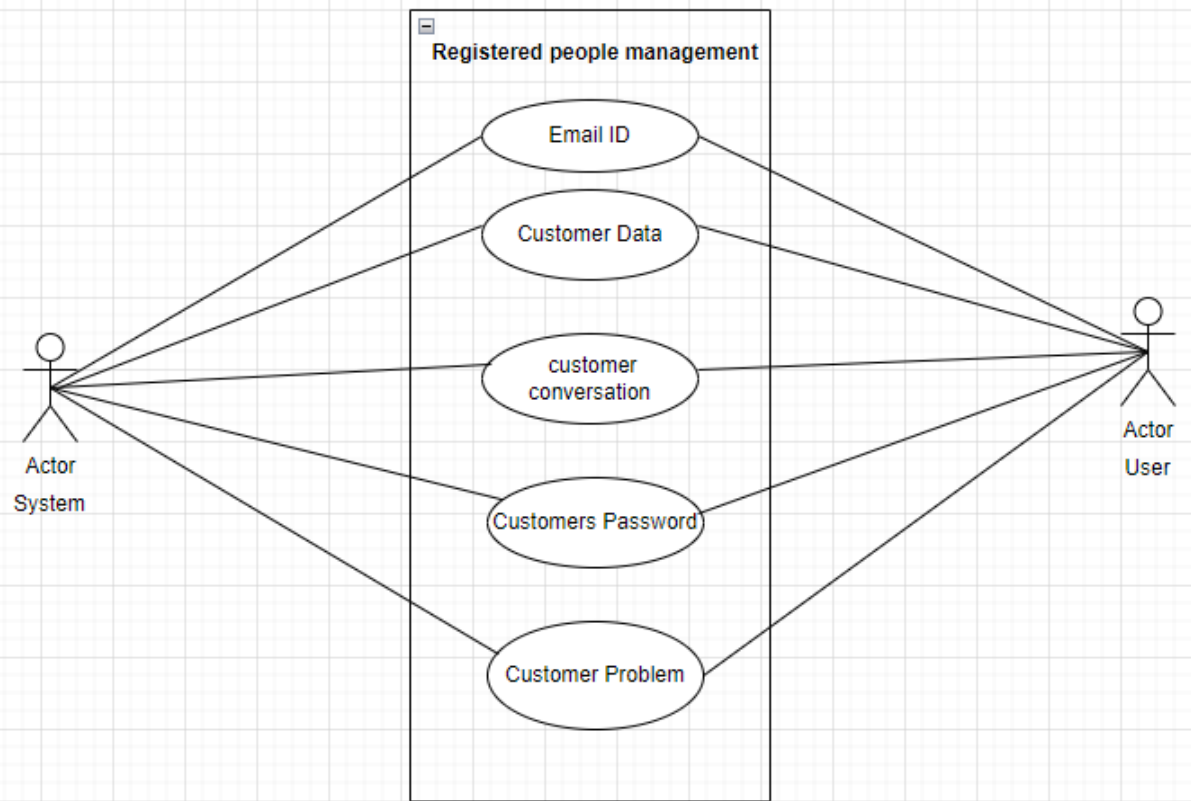
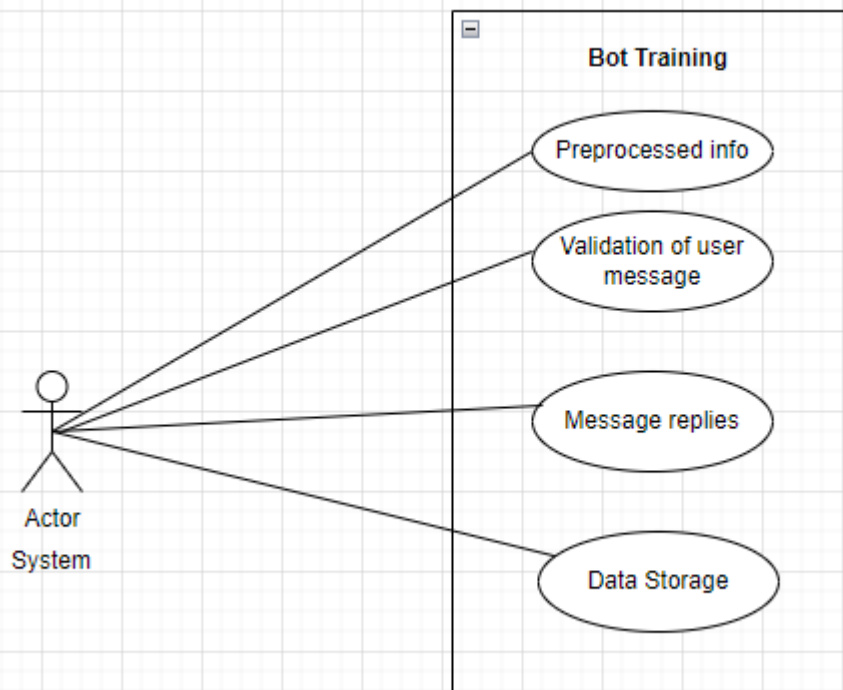
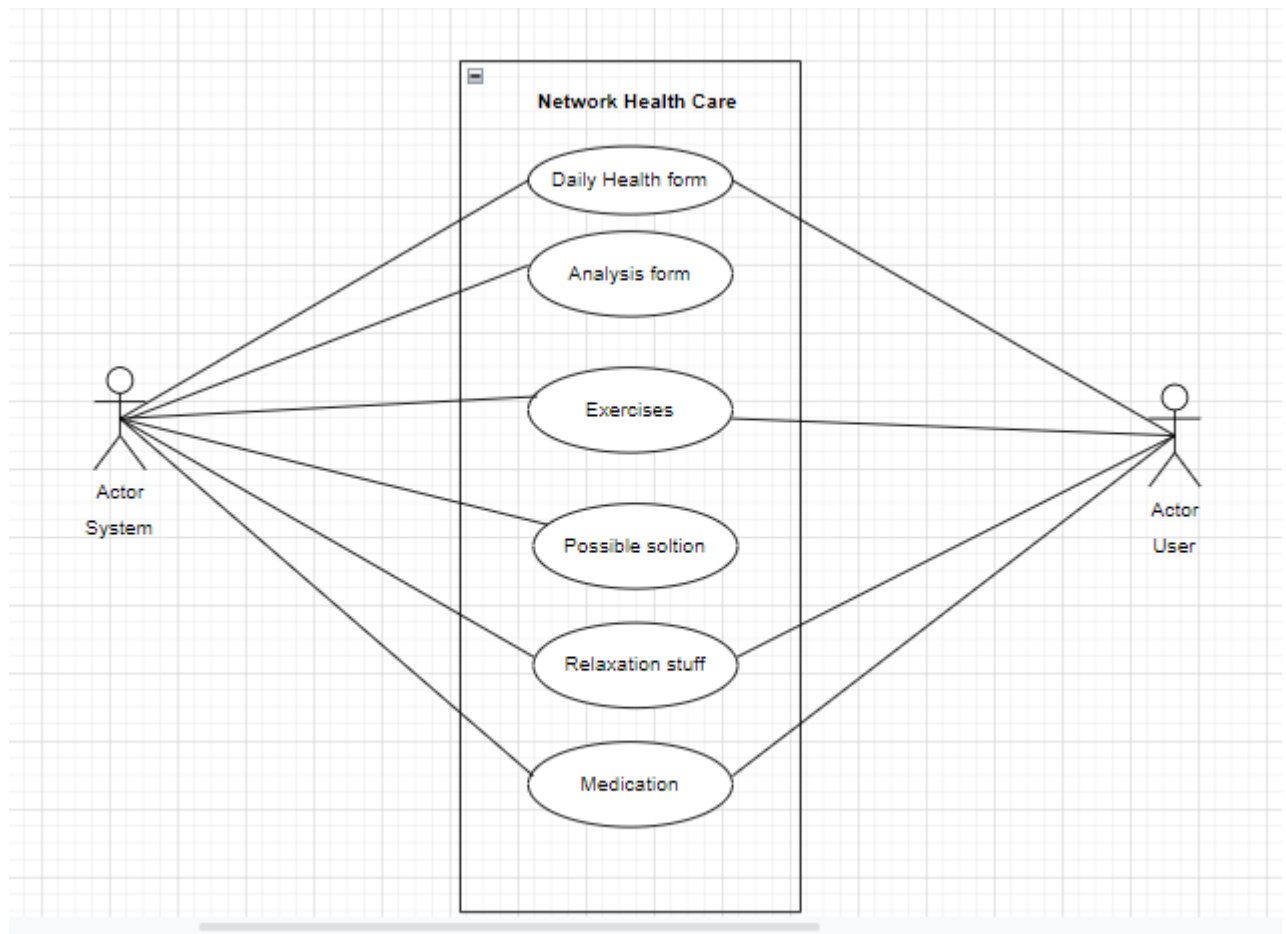
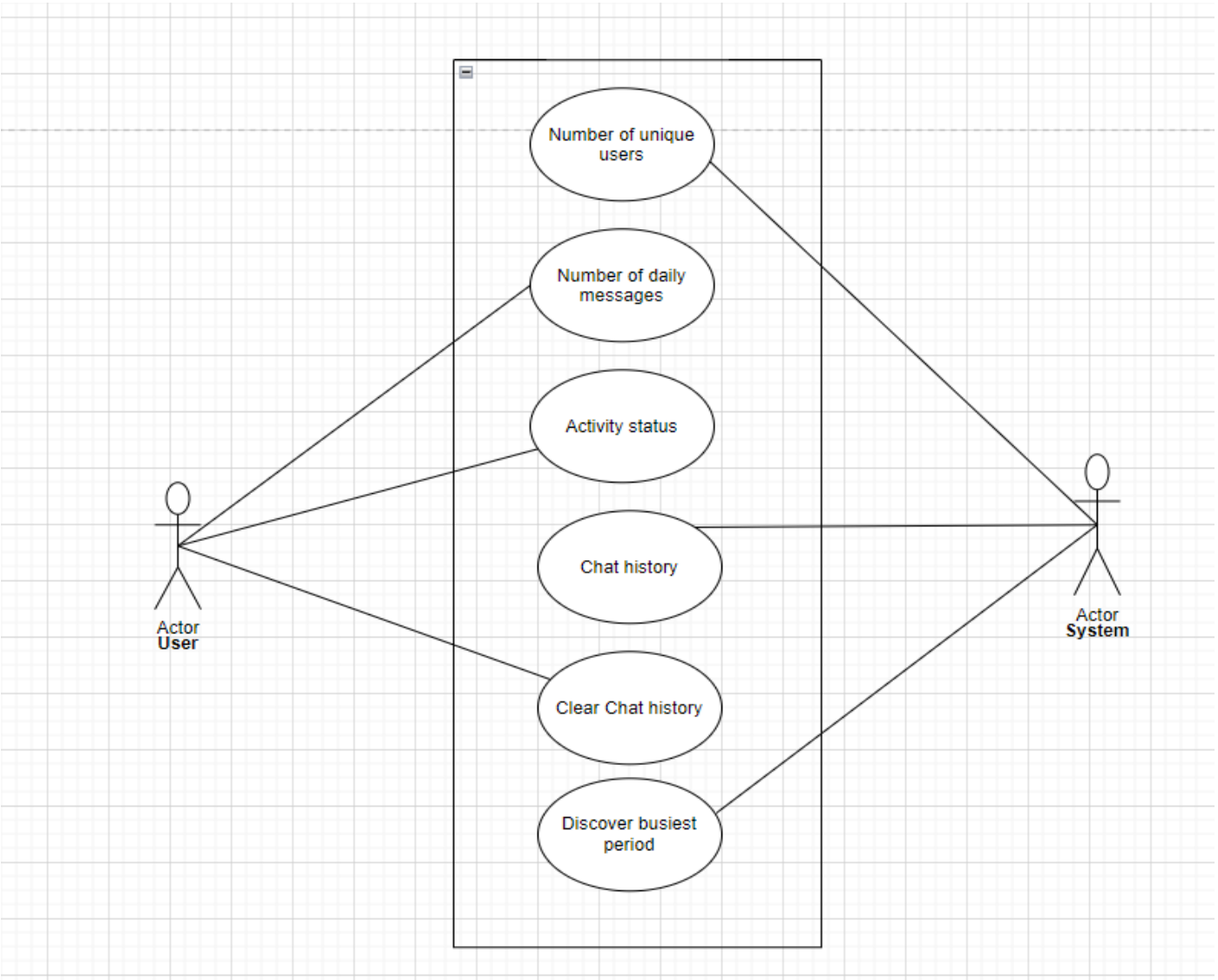


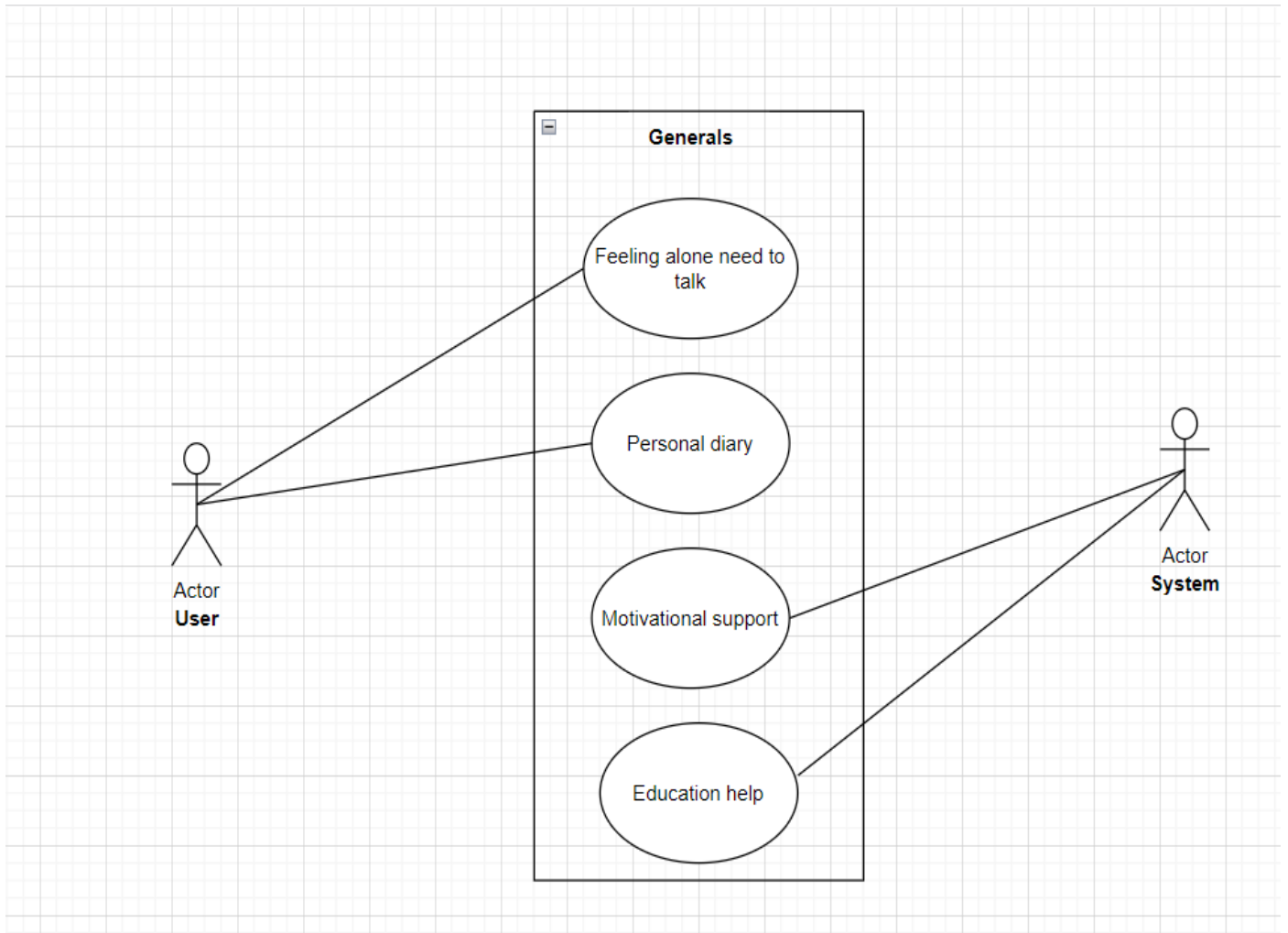
Fig 2: This Diagram shows Users Daily Base Communication.

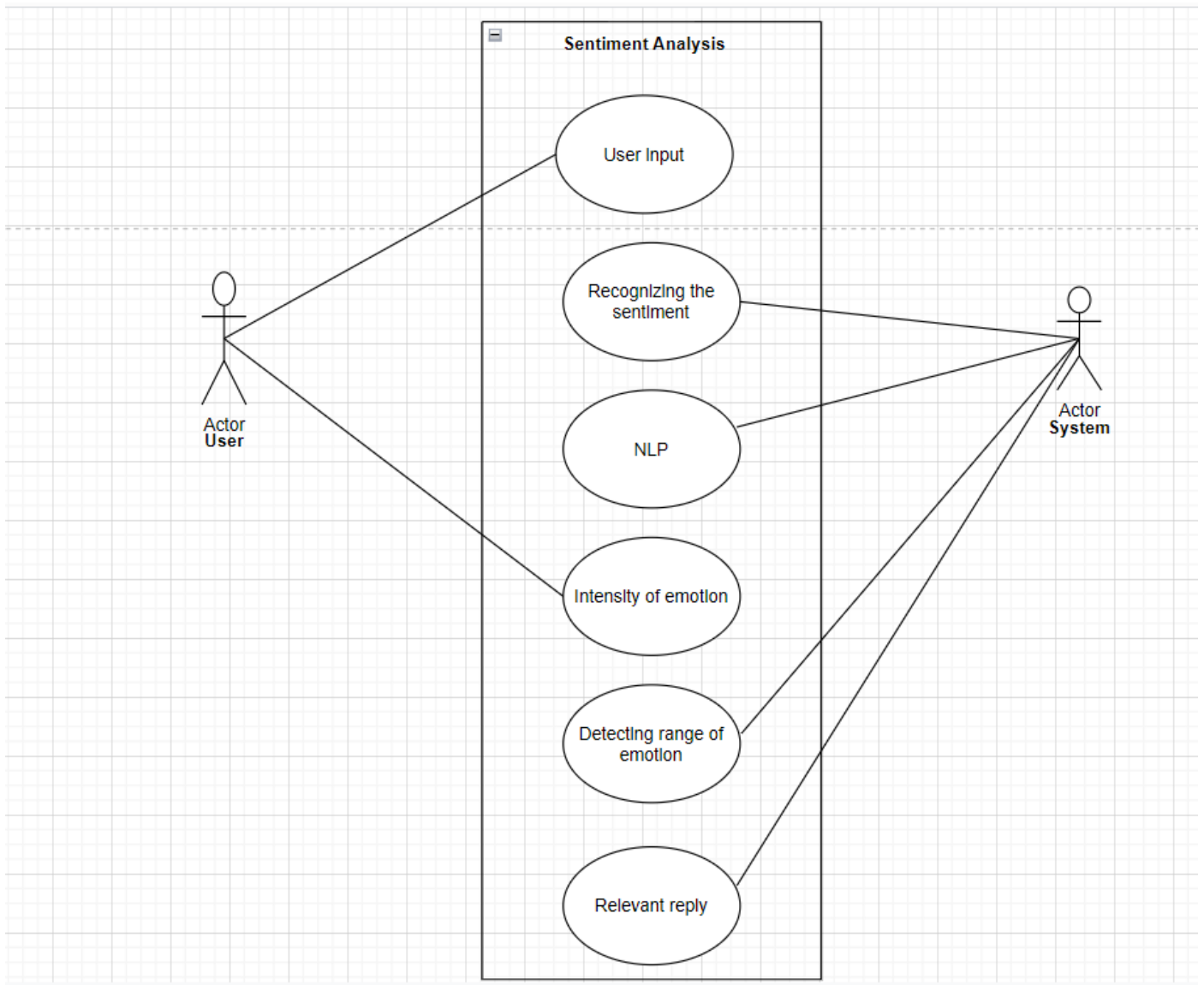


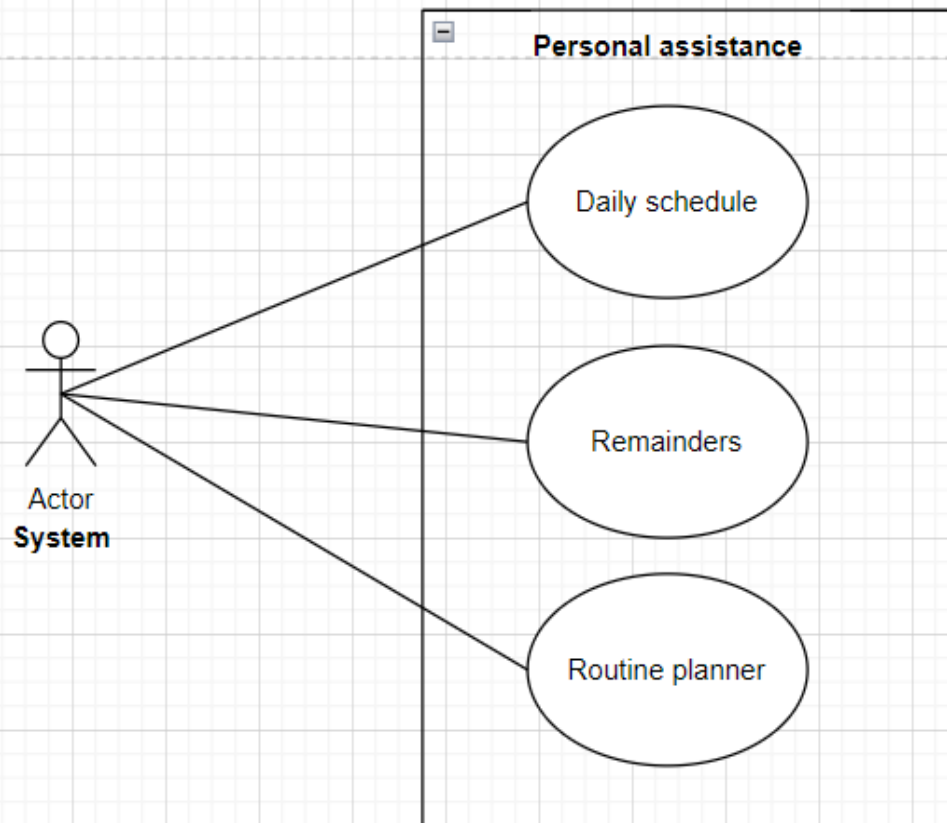


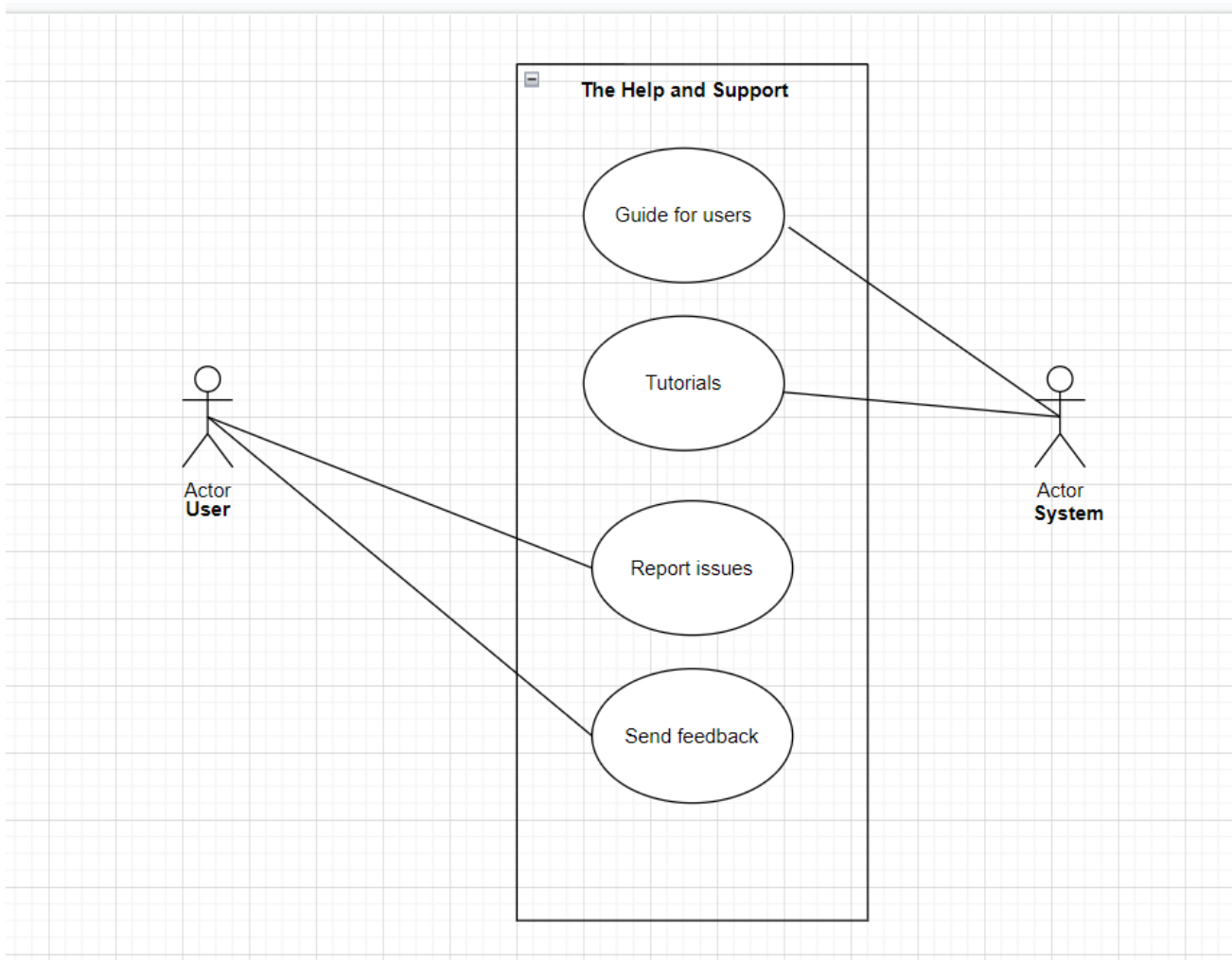












4. Functional Requirements

This section describes the functional requirements of the system expressed in the natural language style. This section is typically organized by feature as a system feature name and specific functional requirements associated with this feature. It is just one possible way to arrange them. Other organizational options include arranging functional requirements by use case, process flow, mode of operation, user class, stimulus, and response depend on what kind of technique has been used to understand functional requirements. Hierarchical combinations of these elements are also possible, such as use cases within user classes. For further detail see Chapter 10 “Documenting the requirements”. Let consider the feature scheme as an example.

4.1 Use Case(s) (List):

M1-UC1	SignUp
M1-UC2	SignIn
M1-UC3	Change Avatar
M1-UC4	Change Password
M1-UC5	Change Password
M1-UC6	View Profile
M1-UC7	Logout
M2-UC1	Navigate to Chatbox
M2-UC2	Display Daily Auto Generated Message
M2-UC3	Chat replies
M2-UC4	Refresh Chatbox
M3-UC1	Email'-ID

M3-UC2	Customers Data
M3-UC3	Customer Conversation
M3-UC4	Customer Password
M3-UC5	Customer Problems
M4-UC1	Preprocessed info
M4-UC2	Validation of user message
M4-UC3	Message replies
M4-UC4	Data Storage
M5-UC1	Daily Health Form
M5-UC2	Analysis form
M5-UC3	Exercises
M5-UC4	Every Possible Solution
M5-UC5	Relaxation Stuff

M5-UC6	Medication
M6-UC1	Number of unique users
M6-UC2	Number of daily messages
M6-UC3	Activity Status
M6-UC4	Chat History
M6-UC5	Clear chat history
M6-UC6	Discover busiest period
M6-U7	clear chat history
M7-UC1	Feeling alone need to talk
M7-UC2	Personal Diary
M7-UC3	Motivational support
M7-UC4	Educational Help
M8-UC1	User input

M8-UC2	Recognizing the statement
M8-UC3	NLP
M8-UC4	Intensity of the emotion
M8-UC5	Detecting range of emotion
M8-UC6	Relevant reply
M9-UC1	Daily schedule
M9-UC2	Reminders
M9-UC3	Routine planner
M10-UC1	Guide for the user
M10-UC2	Tutorials
M10-UC3	report issues
M10-UC4	Send feedback

4.2 Use Case(s) (Tabular):

This section of the SRS should contain all the details the software developer needs to create a design. This is typically the largest and most important part of the SRS. This section contains an **overview of the use-case model** or the subset of the use-case model that is applicable for this subsystem or feature. **This includes a list of names and brief descriptions of all use cases and actors, along with applicable relationships.**

Write all the use cases as per given tabular format w.r.t to each module.

Note: You can get Use Case List as per module aspect from list created in Section-4.1

4.2.1. SignIn

Table 1 Show the detail use case template and example

Use Case ID:	M1-UC-1.
Use Case Name:	SignIn
Actors:	User System
Description:	The user will log in to his/her account by entering the correct Data.
Trigger:	When the user presses the sign in button.
Level:	User
Preconditions:	User must have an application installed on his/her device. Users must have an existing account.
Postconditions:	If the user enters wrong login information, then he/she will stay on the same screen; otherwise, will login to the system.

Normal Flow:	<p>. Open AI Chatbot application/webpage.</p> <ol style="list-style-type: none"> 1. Click on getting started. 2. Choose from two options: “Create account” or “SignIn”. 3. following details will be entered by the user. 4. Enter the username. 5. Enter password of the account.
Alternative Flows:	N/A
Exceptions:	If a user enters wrong information, then an error will be shown and the user will be asked to re enter the details.

Business Rules	N/A
Assumptions:	User/Admin will have access to the internet.

4.2.2. SignUp

Use Case ID:	M1-UC-2.
Use Case Name:	SignUp
Actors:	User System
Description:	An Account will be created.
Trigger:	When the user presses the sign up button.

Preconditions:	<p>Users must have a valid email id.</p> <p>User must have installed the Application.</p>
Post conditions:	<p>Users accounts will be created.</p>
Normal Flow:	<ol style="list-style-type: none"> 1. Open AI Chatbot System. 2. Click on getting started. 3. Click on “Create Account” Account. 4. Enter first name. 5. Enter last name. 6. Enter email. 7. Enter password. 8. Confirm the password. 9. Enter phone number/email. 10. Press the sign up Button.
Alternative Flows:	<p>User will be asked to confirm email/phone number on another screen</p>
Exceptions:	<ol style="list-style-type: none"> 1. In step 7, if a user enters a password which does not contain uppercase and lowercase letters having a total length of 8 characters then an error message will be shown “Password should contain uppercase and lower case characters of length 8. 2. If the password in 7 and 8 steps is not the same, then the error message will be shown “Password does not match”. 3. If email format is not correct, then error message will be shown “Invalid email” 4. If the user enters invalid phone, then an error message will be shown “Invalid phone number”.

Business Rules	N/A
Assumptions:	Users must have a valid phone number and email.

4.2.3. Change Password

Use Case ID:	M1-UC-5.
Use Case Name:	Change Password
Actors:	User System
Description:	User will be able to change his password.
Trigger:	User will click on the password button in the user profile.
Preconditions:	Users must be logged in to the system.
Post conditions:	User account's password will be changed.

Normal Flow:	<ol style="list-style-type: none"> 1. Open “AI Chat bot System” 2. Click on the change password button. 3. Enter the old password. 4. Enter a new password. 5. Confirm new password. 6. Click on the save button.
Alternative Flows:	User will be asked to confirm email/phone number before changing password
Exceptions:	<p>In step 3, if the old password does not match, then an error message will be displayed “Invalid password”.</p> <p>In step 4, if the new password does not match with the correct password or enters invalid password then an error message will be displayed “Please enter the correct password”.</p>
Business Rules	N/A
Assumptions:	Users must have an account logged in to the system.

4.2.4: Navigate to chatbot

Use Case ID:	M2-UC-1.
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Use Case Name:	Navigate to chatbot
Actors:	User System
Description:	user can chat with bot
Trigger:	When the user presses the talk button
Preconditions:	User must be logged in User must have installed the Application.
Post conditions:	chatbot will talk with user
Normal Flow:	<p>Open AI Chatbot System.</p> <p>Click on getting started.</p> <p>Click on SignIn</p> <p>Enter email.</p> <p>Enter password.</p> <p>press talk button and talk.</p>

Alternative Flows:	Users will Stay on the same screen.
Exceptions:	<p>If the password is not the same, then the error message will be shown “Password does not match”.</p> <p>If email format is not correct, then error message will be shown “Invalid email”</p>
Business Rules	N/A
Assumptions:	Users must signIn

4.2.5: Daily autogenerated Messages

Use Case ID:	M2-UC-2.
Use Case Name:	Daily auto generated Message
Actors:	System

Description:	a message is generated by bot after every 24 hours
Trigger:	N/A
Preconditions:	User must have installed the app
Post conditions:	message shown in notification.
Normal Flow:	<p>auto generated message is shown by the bot after each 24 hour.</p> <p>Asking for queries</p> <p>Asking for health</p>
Alternative Flows:	N.A

Exceptions:	If the application is not installed, a message will not be shown.
Business Rules	N/A
Assumptions:	N/A

4.2.6:Chatrplies

Use Case ID:	M2-UC-3
Use Case Name:	Chat Replies
Actors:	user
Description:	
Trigger:	N/A

Preconditions:	User must have logged in and pressed talk button
Post conditions:	system will give replies.
Normal Flow:	<p>options will be given to the user</p> <p>Asking for queries</p> <p>Asking for health</p> <p>asking for general talk</p> <p>stress issues</p> <p>problem statement</p> <p>problems solution</p> <p>select from predefined messages</p> <p>type message</p>
Alternative Flows:	N.A

Exceptions:	if the system doesn't understood the query it will display a message”tell me more”
Business Rules	N/A
Assumptions:	N/A

4.2.7: Email-Id

Use Case ID:	M3-UC-1.
Use Case Name:	Email-Id
Actors:	System
Description:	Email Id will be managed
Trigger:	N/A

Preconditions:	User must have and existing account
Post conditions:	N/A
Normal Flow:	existing account
Alternative Flows:	N.A
Exceptions:	If the user has no existing account he will have to create one.
Business Rules	N/A

Assumptions:	N/A
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4.2.8: Customers Password

Use Case ID:	M3-UC-2
Use Case Name:	Customers Password
Actors:	System
Description:	Customers will be managed by the system
Trigger:	N/A
Preconditions:	User must have and a password to authenticate
Post conditions:	N/A

Normal Flow:	N/A
Alternative Flows:	N.A
Exceptions:	user cannot be validated without the password
Business Rules	N/A
Assumptions:	N/A

4.2.9: User Conversations

Use Case ID:	M3-UC-3
Use Case Name:	User conversation
Actors:	System
Description:	Customers conversation will be managed by the system uniquely
Trigger:	N/A
Preconditions:	user must have go through the chat or talk mod.
Post conditions:	N/A

Normal Flow:	<p>gives option to user</p> <p>1.Space to talk</p> <p>2.feelings</p> <p>tell:</p> <p>3.jokes</p> <p>4.quran</p>
Alternative Flows:	<p>N.A</p>
Exceptions:	<p>N/A</p>
Business Rules	<p>N/A</p>

Assumptions:	N/A
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4.2.10: Validation of the user message

Use Case ID:	M4-UC-1
Use Case Name:	Validation of the users message
Actors:	System
Description:	message by the user will be validated
Trigger:	N/A
Preconditions:	N/A
Post conditions:	ML applied after validation

Normal Flow:	1.message length should be precise. 2.less special characters 3.correct replies
Alternative Flows:	N.A
Exceptions:	N/A
Business Rules	N/A
Assumptions:	N/A

4.2.11: Message replies

Use Case ID:	M4-UC-2
Use Case Name:	Message replies
Actors:	System
Description:	chatbot will reply the user
Trigger:	N/A
Preconditions:	N/A
Post conditions:	N/A
Normal Flow:	<ol style="list-style-type: none">1.Chatbot will reply according to the question2.predefined words3.maintain context4.unnatural conversation

Alternative Flows:	N.A
Exceptions:	N/A
Business Rules	N/A
Assumptions:	N/A

4.2.12: Daily health form

Use Case ID:	M5-UC-1
Use Case Name:	Daily health form
Actors:	System User
Description:	a form will be filled by user daily
Trigger:	N/A
Preconditions:	N/A
Post conditions:	N/A

Normal Flow:	<p>A health form will be created on a daily basis .</p> <p>daily bases checkcup.</p> <p>enlight the problems</p>
Alternative Flows:	bot will work on previous record
Exceptions:	N/A
Business Rules	N/A
Assumptions:	N/A

4.2.13 ;Analysis form

Use Case ID:	M5-UC-2
Use Case Name:	Analysis Form
Actors:	System User
Description:	analysis form with help of a chart
Trigger:	press Analysis button
Preconditions:	N/A
Post conditions:	N/A

Normal Flow:	1.Chatbot will analyze the form 2.draw algorithms 3.examine the health issue
Alternative Flows:	N.A
Exceptions:	N/A
Business Rules	N/A

Assumptions:	N/A
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4.2.14 ;Exercises

Use Case ID:	M5-UC-3
Use Case Name:	Exercises
Actors:	System user
Description:	solutions to the problem
Trigger:	N/A
Preconditions:	N/A

Post conditions:	N/A
Normal Flow:	1.Chatbot will analyze the form 2.suggest exercises 3.outer 4.home
Alternative Flows:	N.A

Exceptions:	N/A
Business Rules	N/A
Assumptions:	N/A

4.2.14 ;Medication

Use Case ID:	M5-UC-4
Use Case Name:	Medication
Actors:	System user

Description:	suggestion of medicines
Trigger:	N/A
Preconditions:	After analyzing form
Post conditions:	N/A
Normal Flow:	<ol style="list-style-type: none"> 1.Chatbot will analyze the form 2.suggest medicines 3.suggest rest 4.exercises.
Alternative Flows:	N.A

Exceptions:	N/A
Business Rules	N/A
Assumptions:	N/A

Module 6: Chatbot analytics

4.6.1 Number of unique users

Use Case ID:	M6-UC-1
Use Case Name:	Number of unique users
Actors	System
Description:	The system will keep a check on different users data and analyze it.
Priority:	High
Precondition:	Every user must have a unique identity.
Trigger:	N/A
Include:	None
Normal Flow:	1.The system will check the username of each user. 2. Each user must have a different name. 3.The email-id of all users must be unique. 4-The difference between users will be understood.
Alternative flows:	None.
Exceptions:	-If the user could not be able to identify if the users are unique or not, then the user will generate an OTP (one time pad). -The code will make it easier to know the unique user. -After which the normal flow will resume.
Post condition:	After the successful recognition of the unique users, the system will be able to communicate properly.
Business Rules:	User should have an authentic email and contact info added.
Notes and Issues:	None.
Assumptions:	1-User will enter data correctly. 2-User will have a stable internet connection.

4.6.2: Number of daily messages

Use Case ID:	M6-UC-2
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Use Case Name:	Number of daily messages
Actors	User
Description:	The user can do daily messaging with the chatbot.
Priority:	High
Precondition:	The user must have a secure internet connection.
Trigger:	N/A
Include:	None
Normal Flow:	1-The user will connect to the internet. 2-The user will text the system. 2-The user will wait for a reply.
Alternative flows:	None.
Exceptions:	-If the user won't be able to chat then he would try sending a complaint to the system.
Post condition:	Daily messaging with the user will lead to user satisfaction and relaxation.
Business Rules:	User should have authentic contact info added.
Notes and Issues:	None.
Assumptions:	1-User will enter data correctly. 2-User will have a stable internet connection.

4.6.3: Activity Status:

Use Case ID:	M6-UC-3
Use Case Name:	Activity status
Actors	User
Description:	The user's activity status can be shown online or offline both as the user likes.
Priority:	Low
Precondition:	The user must have a secure internet connection. The user must know where the information is placed.
Trigger:	N/A
Include:	None

Normal Flow:	1-The user will connect to the internet. 2-The user will go to settings. 2-The user will change their activity status according to their own liking.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	N/A
Business Rules:	Users should have authentic contact info added.
Notes and Issues:	None.
Assumptions:	1-User will enter data correctly. 2-User will know how to change the activity status. -User will have a stable internet connection.

4.6.4:Clear Chat history

Use Case ID:	M6-UC-4
Use Case Name:	Clear Chat History
Actors	User
Description:	The user will have all the access to the chat history stored in the backend.
Priority:	Low
Precondition:	The user must keep a proper check.
Trigger:	N/A
Include:	None
Normal Flow:	If the user wants to delete the chat history then in that case the system will delete the history. if the user wants it to be kept then the system won't delete it
Alternative flows:	None.
Exceptions:	N/A
Post condition:	If the user wants to delete the chat history then in that case the system will delete the history. if the user wants it to be kept then the system won't delete it.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	All depends on what the user wants.

4.6.5: Chat History

Use Case ID:	M6-UC-5
Use Case Name:	Chat history
Actors	System.
Description:	The system can view and has all the chat history saved in the backend.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will keep all the chat history. -All the chats done between the bot and user.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	Chat history will be stored.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.6.6: Discover busiest period

Use Case ID:	M6-UC-6
Use Case Name:	Discover busiest period
Actors	System.
Description:	The system can view the busiest period.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None

Normal Flow:	-The system will keep all the chat history. -All the chats done between the bot and user.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	System must be able to view.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

Module 7:Generals

4.7.1: Feeling alone need to talk.

Use Case ID:	M7-UC-1
Use Case Name:	Feeling alone need to talk.
Actors	User
Description:	The user can talk to the bot whenever the user is feeling alone.
Priority:	High
Precondition:	Users can feel free to contact when alone.
Trigger:	N/A
Include:	None
Normal Flow:	The user will talk to the system.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	the user will feel relaxed after talking.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-User will feel free to talk.

4.7.2: Personal diary

Use Case ID:	M7-UC-2
Use Case Name:	Personal diary
Actors	User.
Description:	The user can use the bot as its personal diary and share information.
Priority:	High
Precondition:	The user must have trust.
Trigger:	N/A
Include:	None
Normal Flow:	The user will share his feelings and keep them within the bot history.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	After using the bot as a personal diary the user will feel much relaxed.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.7.3:Motivational support:

Use Case ID:	M7-UC-3
Use Case Name:	Motivational support
Actors	System.
Description:	The system can give motivational support to the user even other than the health motivation.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-When the user feels down

	-He will talk to bot -Bot will give him motivational support.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	Users will get motivated.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.8.1: Recognizing the sentiment:

Use Case ID:	M8-UC-1
Use Case Name:	Recognizing the sentiment.
Actors	System.
Description:	The system can view and recognize the user's sentiment and feelings.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will understand -The feelings of the user
Alternative flows:	None.
Exceptions:	N/A
Post condition:	User will feel understood
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong. 2-User will be happy.

4.8.2: Relevant Reply:

Use Case ID:	M8-UC-2
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Use Case Name:	Relevant reply
Actors	System.
Description:	The system will think of a relevant reply for the user.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will know what to reply. -All the chats done between the bot and user.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	Chat history will be stored.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.8.3: User Input

Use Case ID:	M8-UC-3
Use Case Name:	User input
Actors	user
Description:	The user can view and input.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The user will input data. -The user can talk.
Alternative flows:	None.

Exceptions:	N/A
Post condition:	Chat history will be stored.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.9.1: Daily schedule

Use Case ID:	M9-UC-1
Use Case Name:	Daily schedule
Actors	System.
Description:	Personal assistance is done daily by the system.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will keep all the chat history. -The daily schedule must be given on time.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	Chat history will be stored.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.9.2: Remainders:

Use Case ID:	M9-UC-2
Use Case Name:	Remainders
Actors	System.

Description:	The system can give reminders to the user.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will keep all the chat history. -The system will keep on giving reminders to the user.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	Chat history will be stored.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.10.1: Guide For users

Use Case ID:	M10-UC-1
Use Case Name:	Guide for users
Actors	System.
Description:	The system can give a guide for the users.
Priority:	High
Precondition:	The system must be strong enough.
Trigger:	N/A
Include:	None
Normal Flow:	-The system will help and guide the user whenever the help is needed.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	user will be able to guide.

Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong.

4.10.2: Report issues:

Use Case ID:	M10-UC-2
Use Case Name:	Report issues.
Actors	User.
Description:	The user can give the feedback he wants, and report any issue.
Priority:	High
Precondition:	The user be sure of the problem before reporting.
Trigger:	N/A
Include:	None
Normal Flow:	-The user will tell the system. -If the user liked the system or not.
Alternative flows:	None.
Exceptions:	N/A
Post condition:	The system should take care of the issues reported.
Business Rules:	N/A
Notes and Issues:	None.
Assumptions:	1-System will be strong. 2-System will improve itself.

4.3 Functional Requirement X

Itemize the specific functional requirements associated with each feature. These are the software capabilities that must be implemented for the user to carry out the feature's services or to perform a use case. Describe how the product should respond to anticipated error conditions and to invalid inputs and actions. Uniquely label each functional requirement, as described earlier. You can create multiple attributes for each functional requirement, such as rationale, source, dependencies, etc. The following template is required to write functional requirements. For further detail see Chapter 11" Writing excellent requirements". Write all the use cases as per given tabular format w.r.t to each module.

4.3.1. Functional Requirement One

M1-UC-1: SignIn:

Table 1: Enter the user name

Identifier	M1-UC-1.1
Title	Enter the User name
Requirement	The user must enter his/her user name
Source	Arslan
Rationale	To login to the system, the user needs to enter their Username.
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 2: Enter the Password

Identifier	M1-UC-1.2
Title	Enter the Password
Requirement	The user must enter his Password
Source	Arslan
Rationale	To login to the system, the user needs to enter their Password
Business Rule	N/A
Dependencies	Requirements ID that is dependent on this requirement.
Priority	High

Table 3:Create account or SignIn

Identifier	M1-UC-1.3
Title	create account or SignIn
Requireme nt	The user chooses between two options.
Source	Arslan
Rationale	To login to the system, or create a new account,the user needs to select between two options
Business Rule	N/A
Dependenc ies	N/A
Priority	High

M1-UC-2:SignUp

Table 1: Enter the Email

Identifier	M1-UC-2.1
Title	Enter email
Requirement	The user must enter his/her email address
Source	Arslan
Rationale	To login to the system, the user needs to enter their email.
Business Rule	N/A
Dependencies	M1-UC-1.3
Priority	High

Table 2: Confirm password

Identifier	M1-UC-2.2
Title	Confirm Password
Requirement	Users need to confirm their password.
Source	Arslan
Rationale	To complete forget the password process, confirm your password.
Business Rule	N/A
Dependencies	M1-UC-1.3
Priority	High

Table 3: Enter First name

Identifier	M1-UC-2.3
Title	Enter first name
Requirement	Users need to write his first name
Source	Arslan
Rationale	To complete the create account process user have to enter his first name
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 4: Enter last name

Identifier	M1-UC-2.4
Title	Enter Last name
Requirement	Users need to write his Last name
Source	Arslan
Rationale	To complete the create account process user have to enter his last name also
Business Rule	N/A
Dependencies	N/A
Priority	High

M1-UC-3:Change password

Table 1: old password

Identifier	M2-UC-3.1
Title	Old Password
Requirement	Users need to change the password.
Source	Arslan
Rationale	To change the password process, the user will enter the old password.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Enter new password

Identifier	M2-UC-3.2
Title	Enter new Password
Requirement	Users need to change the password.
Source	Arslan
Rationale	To change the password process, the user will enter the New password.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Confirm password

Identifier	M2-UC-3.3
Title	Confirm Password
Requirement	Users need to confirm the password.
Source	Arslan
Rationale	To change the password process, the user needs to confirm a new password.
Business Rule	N/A
Dependencies	N/A
Priority	High

M2-UC-1: Navigate to chatbot

Table 1: Enter the Password

Identifier	M2-UC-1.1
Title	Enter the Password
Requirement	The user must enter his Password
Source	Arslan
Rationale	To login to the system, the user needs to enter their Password
Business Rule	N/A
Dependencies	Requirements ID that is dependent on this requirement.
Priority	High

Table 2: Enter the Email

Identifier	M2-UC-1.2
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Title	Enter email
Requirement	The user must enter his/her email address
Source	Arslan
Rationale	To login to the system, the user needs to enter their email.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3:press the talk button and talk

Identifier	M2-UC-1.3
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Title	Press the talk button and talk
Requirement	The user must press the talk button.
Source	Arslan
Rationale	To Navigate to the system, the user needs to press the talk button after logging in
Business Rule	N/A
Dependencies	N/A
Priority	High

M2-UC-2:Display Auto Generated Message

Table 1:Ask for queries

Identifier	M2-UC-2.1
Title	Display auto generated Message
Requirement	The user must have installed the app.
Source	Arslan
Rationale	To see the message by system,notification must be on.
Business Rule	N/A
Dependencies	N/A
Priority	Medium

Table 2:Ask for Health

Identifier	M2-UC-2.2
Title	Display auto generated Message asking for health.
Requireme nt	The user must have installed the app.
Source	Arslan
Rationale	To see the message by system,notification must be on.
Business Rule	N/A
Dependenc ies	N/A
Priority	High

M2-UC-3:Chatreplies

Table 1:select from predefined message

Identifier	M2-UC-1.1
Title	Select from predefined message
Requirement	The user must be in talk mode.
Source	Arslan
Rationale	To tell the queries users have to select from the options.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2:Type message

Identifier	M2-UC-1.2
Title	Type Message
Requireme nt	The user must be in talk mode.System is unable to give options.
Source	Arslan
Rationale	To tell the queries by typing.
Business Rule	N/A
Dependenc ies	M2-UC-1.1
Priority	medium

Table 3:Problem Statement

Identifier	M2-UC-1.3
Title	Problem statement
Requireme nt	System understands the issue and then proceeds to next.
Source	Arslan
Rationale	system will be able to understand the exact issue.
Business Rule	N/A
Dependenc ies	M2-UC-1.1,M2-UC-1.2
Priority	High

Table 4:Problem Solution

Identifier	M2-UC-3.4
Title	Problem solutions
Requireme nt	different solutions are given
Source	Arslan
Rationale	to give solutions to the problem.
Business Rule	N/A
Dependenc ies	M2-UC-3.1,M2-UC-3.2,M2-UC-3.3.
Priority	High

M3-UC-1:registered people management

Table 1: Email-ID

Identifier	M3-UC-1.1
Title	Email-Id
Requirement	The System must have stored the Email-ID of the user.
Source	Arslan
Rationale	System must have All users Ids to manage their respective account.
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 2: Space to talk

Identifier	M3-UC-1.2
Title	Space to talk
Requirement	The system must give the user option to talk in general.
Source	Arslan
Rationale	System replies to the user according to the questions.
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 3:feelings

Identifier	M3-UC-1.3
Title	feelings
Requirement	The System must know the feelings and current mood of the user.
Source	Arslan
Rationale	System replies according to the feelings of the user
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 4: Jokes

Identifier	M3-UC-1.4
Title	Jokes
Requirement	The System must use jokes for the user to entertain.
Source	Arslan
Rationale	System replies with jokes sometimes to entertain the user in some situations.
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 5: Share problems

Identifier	M3-UC-2.1
Title	Share problems
Requirement	The System asks the user for his/her problems.
Source	Arslan
Rationale	System replies to the user on his problems.
Business Rule	N/A

Dependencies	M3-UC-1.3
Priority	High

Table 6: Needs

Identifier	M3-UC-2.2
Title	Needs
Requirement	The System must ask the user for their needs
Source	Arslan
Rationale	System gives the appropriate solution to the needs

Business Rule	N/A
Dependencies	M3-UC-1.5
Priority	High

Table 7: Suggestions

Identifier	M3-UC-2.3
Title	Suggestions
Requirement	The System must respond to the needs.
Source	Arslan
Rationale	System replies with a good and proper solution to the need and problem.

Business Rule	N/A
Dependencies	M3-UC-1.3,M3UC1.5,M3-UC2.2
Priority	High

M4-UC-1:Validation of the users Message

Table 1: Message length precise

Identifier	M4-UC-1.1
Title	Message length
Requirement	message from user should be precise
Source	Arslan

Rationale	System will validate only messages with short length.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: less special characters

Identifier	M4-UC-1.2
Title	Special characters
Requirement	message from user should be having less special characters
Source	Arslan

Rationale	System will validate only messages having less special characters
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Correct replies

Identifier	M4-UC-1.3
Title	Correct replies
Requirement	message from user should be correct which is asked
Source	Arslan

Rationale	System will validate only messages with short with right answers
Business Rule	N/A
Dependencies	M4-UC-1.1,M4-UC-1.2
Priority	High

Table 4: predefined words

Identifier	M4-UC-2.1
Title	Predefined words
Requirement	chatbot offers predefined words
Source	Arslan

Rationale	System will usually understand the predefined words given to the user.
Business Rule	N/A
Dependencies	
Priority	High

Table 5: Maintain context

Identifier	M4-UC-2.2
Title	Maintain context
Requirement	remember the context of the chat
Source	Arslan

Rationale	System will save the users frustration of dealing .
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 6:natural conversation

Identifier	M4-UC-2.3
Title	natural conversation
Requirement	except for keywords, natural language will also be entertained to some extent.
Source	Arslan

Rationale	System will will provide the typing in natural language sometimes.
Business Rule	N/A
Dependencies	M4-UC2.1
Priority	High

M5-UC-1:Health care

Table 1:Health form

Identifier	M5-UC-1.1
Title	Daily health form
Requirement	to resolve the daily basis health issues

Source	Arslan
Rationale	system will put a check and balance on the users health by maintaining a form
Business Rule	N/A
Dependencies	N/A
Priority	medium

Table 2:Enlighten the problems

Identifier	M5-UC-1.2
Title	Enlight the problems
Requirement	daily health problems of users are identified.

Source	Arslan
Rationale	System will easily suggest the solution to the issues .
Business Rule	N/A
Dependencies	M5-UC1.1
Priority	High

M5-UC-2:Analysis form

Table 3:algorithm comparison

Identifier	M5-UC-2.1
Title	Algorithm comparison
Requirement	form will be analyzed with the help of algorithm

Source	Arslan
Rationale	System will have easy way to identify the issue
Business Rule	N/A
Dependencies	N/A
Priority	medium

M5-UC-3:Exercises

Table 4:outer exercises

Identifier	M5-UC-3.1
Title	outer Exercises
Requirement	suggestions to the health issue

Source	Arslan
Rationale	outer exercises for the young users
Business Rule	N/A
Dependencies	N/A
Priority	medium

Table 5:Home exercises

Identifier	M5-UC-3.2
Title	Home exercises
Requirement	based on the users health
Source	Arslan

Rationale	Home exercise of aged users.
Business Rule	N/A
Dependencies	N/A
Priority	medium

M5-UC-4:Medication

Table 6:suggest medicines

Identifier	M5-UC-4.1
Title	medicines
Requirement	in case of severe issue medicines will be suggested
Source	Arslan

Rationale	will help the user to get stable quickly.
Business Rule	N/A
Dependencies	N/A
Priority	High

M6-UC-1: Number of unique users

Table 1: Administrators

Identifier	M6-UC-1.1
Title	Administrator
Requirement	The administrator will be identified as a unique user.
Source	Haleema Saadia
Rationale	The purpose is to identify different users.
Business Rule	N/A

Dependencies	N/A
Priority	High

Table 2: Users only allowed to read

Identifier	M6-UC-1.2
Title	Users only allowed to read.
Requirement	These users can only read, not do modifications.
Source	Haleema Saadia
Rationale	The purpose is to identify different users.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Explorers

Identifier	M6-UC-1.3
Title	Explorers.
Requirement	They are used to explore.

Source	Haleema Saadia
Rationale	The purpose is to identify different users.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 4: Players

Identifier	M6-UC-1.4
Title	Players
Requirement	The players can play.
Source	Haleema Saadia
Rationale	The purpose is to identify different users.
Business Rule	N/A
Dependencies	N/A
Priority	High

M6-UC-2: Activity Status

Table 1: Online

Identifier	M6-UC-2.1
Title	Online

Requirement	The users activity status will be visible as online.
Source	Haleema Saadia
Rationale	The purpose is to identify the activity status.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Offline

Identifier	M6-UC-2.2
Title	Offline
Requirement	The users activity status will be visible as offline.
Source	Haleema Saadia
Rationale	The purpose is to identify the activity status.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: No Status

Identifier	M6-UC-2.3
Title	No status.
Requirement	The users activity status will not be visible at all.
Source	Haleema Saadia
Rationale	The purpose is to identify the activity status.
Business Rule	N/A
Dependencies	N/A
Priority	High

M7-UC-1:Motivational Status**Table 1:Study Motivation**

Identifier	M7-UC-1.1
Title	Study Motivation
Requirement	The system will give motivation to the user regarding study.
Source	Haleema Saadia
Rationale	The purpose is to motivate the user to start studying.
Business Rule	N/A

Dependencies	N/A
Priority	High

Table 2:Positivity

Identifier	M7-UC-1.2
Title	Positivity
Requirement	The system will spread positivity for the user.
Source	Haleema Saadia
Rationale	The purpose is to motivate the user and release stress.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Daily life problems:

Identifier	M7-UC-1.3
Title	Daily life problems.
Requirement	The system will give motivation and help to the user regarding daily life problems.

Source	Haleema Saadia
Rationale	The purpose is to motivate the user so that user can deal with such problems in daily life scenarios.
Business Rule	N/A
Dependencies	N/A
Priority	High

M7-UC-2: Personal Diary

Table 1:Journal

Identifier	M7-UC-2
Title	Journal
Requirement	The user can use the bot as a journal.
Source	Haleema Saadia
Rationale	The purpose is to keep user busy so the user doesnt feel lonely.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Pomodoro timer:

Identifier	M7-UC-1.2
Title	Pomodoro timer
Requirement	The timer will help the user in time management.
Source	Haleema Saadia
Rationale	The purpose is to help user with time management.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Anxiety Helper:

Identifier	M7-UC-1.3
Title	Anxiety Helper
Requirement	The system will help with anxiety relief.
Source	Haleema Saadia
Rationale	The purpose is to get relief with anxiety.
Business Rule	N/A
Dependencies	N/A

Priority	High
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M8-UC-1: Intensity of emotion

Table 1: High-Intensity

Identifier	M8-UC-1.1
Title	High-intensity
Requirement	The system will know if the intensity of emotion is deep or high.
Source	Haleema Saadia
Rationale	The purpose is to know intensity of emotions.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Low-Intensity

Identifier	M8-UC-1.2
Title	Low-intensity
Requirement	The system will know if the thoughts are shallow.
Source	Haleema Saadia

Rationale	The purpose is to know the emotions.
Business Rule	N/A
Dependencies	N/A
Priority	High

M8-UC-2: Detecting range of emotions:

Table 1: Admiration

Identifier	M8-UC-2.1
Title	Admiration
Requirement	The system will know if the range of emotions is admiration.
Source	Haleema Saadia
Rationale	The purpose is to know the range of emotions.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Confusion

Identifier	M8-UC-2.2
Title	Confusion.
Requirement	The system will know if the range of emotions is Confusion.
Source	Haleema Saadia
Rationale	The purpose is to know the range of emotions.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 3: Nostalgia

Identifier	M8-UC-2.3
Title	Nostalgia
Requirement	The system will know if the range of emotions is Nostalgia.
Source	Haleema Saadia
Rationale	The purpose is to know the range of emotions.
Business Rule	N/A

Dependencies	N/A
Priority	High

M9-UC-1:Reminders

Table 1: Track of task

Identifier	M9-UC-1.1
Title	Track of task
Requirement	The system will know how early the task should be completed.
Source	Haleema Saadia
Rationale	The purpose is to know the track of tasks as a reminder.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Exercise reminders

Identifier	M9-UC-1.2
Title	Exercise Reminders

Requirement	The system will remind you to exercise.
Source	Haleema Saadia
Rationale	The purpose is to know the track of tasks as a reminder.
Business Rule	N/A
Dependencies	N/A
Priority	High

M9-UC-2:Daily schedule

Table 1: Appointment schedule

Identifier	M9-UC-2.1
Title	Appointment schedule
Requirement	The system will give daily tasks and complete them.
Source	Haleema Saadia
Rationale	The purpose is to know the track of tasks as a reminder and a daily schedule is maintained.
Business Rule	N/A
Dependencies	N/A

Priority	High
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Table 2: Travel

Identifier	M9-UC-2.2
Title	Travel
Requirement	The system will know when it is the time to travel.
Source	Haleema Saadia
Rationale	The purpose is to know the track of tasks as a reminder.
Business Rule	N/A
Dependencies	N/A
Priority	High

M10-UC-1: Tutorials

Table 1: Learn about coding

Identifier	M10-UC-1.1
Title	Learn about coding
Requirement	The system will know how to code
Source	Haleema Saadia

Rationale	The purpose is to know the tutorials on chatbot.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Learn about building:

Identifier	M10-UC-1.2
Title	Learn about building
Requirement	The system will know how to build.
Source	Haleema Saadia
Rationale	The purpose is to know the tutorials on chatbot.
Business Rule	N/A
Dependencies	N/A
Priority	High

M10-UC-2: Report Issues:

Table 1: Lacks Transparency

Identifier	M10-UC-2.1
Title	Lacks transparency
Requirement	The system will be reported an issue.
Source	Haleema Saadia
Rationale	The purpose is to know the issues in chatbot.
Business Rule	N/A
Dependencies	N/A
Priority	High

Table 2: Not identifying customers use case

Identifier	M10-UC-2.1
Title	Not identifying customers use case
Requirement	The system will be reported an issue.
Source	Haleema Saadia
Rationale	The purpose is to know the issues in chatbot.
Business Rule	N/A
Dependencies	N/A

Priority	High
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5. Non-Functional Requirements

This section specifies nonfunctional requirements other than constraints, which are recorded in section 2.3, and external interface requirements, which will appear in section 7. These quality requirements should be specific, quantitative, and verifiable. Chapter 14 “beyond functionality” presents more information about these quality attribute requirements and many examples. The following are some examples of documenting guidelines.

Write down all non-functional requirements which will be applicable to your proposed system. that will

be used for project development. Also quantify these non-functional requirements properly.

(Usually 3-5 sentences)

5.1 Reliability

When compared to other applications, this programme is 98% accurate and dependable. If the programme is malfunctioning and down due to some failure, the failure will be replied to in no more than five hours with the goal of quickly resolving the problem.

Approximately two to three defects per thousand lines of code could be present. As soon as they are discovered, these bugs are fixed.

5.2 Usability

Practice Period

A typical user can use the app for no more than 10 minutes.

Level of difficulty The application has an intuitive GUI and is simple to use.

5.3 Performance

Our AI chatbot Xotron has high performance. It effectively talks to the user about daily life things, also keeping a check on the users health. Chatbots performance can be measured by Goal Completion Rate.

Conversation Starter Messages. Health updates. Bot intent analytics. Bot Messages. New Users. Total Users. Active Users. Xotron is a very easy to use friendly bot. It saves time and money. We use chatbot analytics, by using chatbot analytics, you can identify the queries your business receives over live chat.

5.4 Security

Our chatbot provides good security measures. The user's data or any kind of personal information will be secure and safe with us. Our chatbot uses:

Biometric authentication. User Identity Authentication. Enable Two-Factor Authentication. Use HTTPS. Scan your website for vulnerabilities. Self-Destructive Messages.

6. External Interface Requirements

This section provides information to ensure that the system will communicate properly with users and with external hardware or software elements. A complex system with multiple subcomponents should create a separate interface specification or system architecture specification. The interface documentation could incorporate material from other documents by reference. For instance, it could point to a hardware device manual that lists the error codes that the device could send to the software.

6.1 User Interfaces Requirements

Chatbot UIs should be:

- Easy to use. ...
- Responsive. ...
- Engaging. ...
- Convenient. ...
- Endowed with personality. ...
- Flexible.

A chatbot user interface (UI) is **a series of graphical and language elements that allow for human-computer interaction**. There are different types of user interfaces , chatbots being a natural language user interface. This means users can communicate on their terms, not the computer's.

6.2 Software interfaces

A chatbot user interface (UI) is **a series of graphical and language elements that allow for human-computer interaction**. There are different types of user interfaces , chatbots being a natural language user interface. This means users can communicate on their terms, not the computer's.

Tidio. Tidio is a live chat and chatbot combo that allows you to connect with your website visitors and provide them with real-time assistance

6.3 Hardware interfaces

IQ Bot hardware and software requirements

- 32 GB RAM.
- 8 Octa Core Processor.
- 500 GB hard disk space ¹
- Ensure C: drive has 100 GB plus free hard disk space.

6.4 Communications interfaces

Communications interfaces: **wireless or wired technologies are used to connect devices to one another, the Internet, remote servers, etc.**

7. Conclusion

In this document we have made the use case diagrams of the modules we chose in the previous assignment. Each module must have 7-8 use case diagrams. Then the Functional Requirements of those use cases are made from the tabular form of the modules. Our chatbot gives employees time to focus on more important tasks and prevents customers from waiting to receive responses.

8. References

1-<https://chatbotsmagazine.com/tutorials/home>

2-<https://www.rocky.ai/diary-app>

3-<https://pomofocus.io/>

4-<https://chatbotsmagazine.com/positivity-motivation-and-chatbot-encouragement-af04b3449d98>


5-<https://dashthis.com/kpi-examples/unique-users/>

These are the google links of the references that we used.

9. Work Division

ARSLAN AMIN	HALEEMA SAADIA
MODULE 1-5 Points 1 ,2, 5.1 ,5.2	MODULE 6-10 points 6,7,8,9

Registration page	
Sign-In	1. Click on getting started.
	2. Choose from two options: "Create account" or "SignIn".
	3. following details will be entered by the user.
	4. Enter the username.
	5. Enter password of the account.
SignUp	1. Open AI Chatbot System.
	2. Click on getting started.
	3. Click on "Create Account" Account.
	4. Enter first name.
	5. Enter last name.
	6. Enter email.
	7. Enter password.
	8. Confirm the password.
	9. Enter phone number/email.
	10. Press the sign up Button.
Change Password	1. Open "AI Chat bot System"
	2. Click on the change password button.
	3. Enter the old password.
	4. Enter a new password.
	5. Confirm new password.
Forget Password	
	Enter code
	Enter new password
	Confirm password

Daily base Communication	
Navigate to chatbot	Open AI Chatbot System.
	Click on getting started.
	Click on SignIn
	Enter email.
	Enter password.
	press talk button and talk.
Daily Auto message	auto generated message is shown
	Asking for queries
	Asking for health
Chat replies	options will be given to the user
	Asking for queries
	Asking for health
	asking for general talk
	stress issues
	problem statement
	problems solution
	select from predefined messages
	type message

Registered people management	
Email-id	existing account
Customer Password	N/A
User Conversation	gives option to user
	1.Space to talk
	2.feelings
	tell:
	3.jokes
	4.quran

Bot Training	
validation of user message	1.message length should be precise
	2.less special characters
	3.correct replies
message replies	1.Chatbot will reply according to
	2.predefined words
	3.maintain context
	4.unnatural conversation

Health care	
daily health form	A health form will be created daily bases checkcup. enlight the problems
analysis form	1.Chatbot will analyze the form 2.draw algorithms 3.examine the health issue
exercises	1.Chatbot will analyze the 2.suggest exercises 3.outer 4.home
medication	1.Chatbot will analyze the form 2.suggest medicines 3.suggest rest 4.exercises.

Sentiment Analysis	
recognizing the sentiment	The system will understand -The feelings of the user
form	
Revelant reply	
	-The system will know what to reply. -All the chats done between the bot and user.
form	

