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Department of Software Engineering, FSIT

SWE-431 Project / Thesis

Project: Smart Medicine corner (Medicall+)

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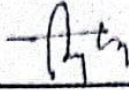
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APPROVAL

This thesis titled on "Smart Medicine Corner (Medical+)", submitted by **Tosar Ahmed (ID: 171-35-2033)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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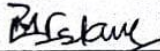
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ABSTRACT

This project is a web based medicine e-commerce site especially designed for common people of all classes and professions and the specialist doctors of Bangladesh. It can be a convenient way to connect all the common peoples and doctors. It can be a popular platform means of consulting a doctor at home and getting the necessary medicines at the right price at their fingertips.

Especially respectable women, who feel shy to buy the essentials. They can easily pick up the parcel sitting at home by a order.

TABLE OF CONTENT

TITLE PAGE	I
DECLARATION	II
SUPERVISOR DECLARATION	III
STUDENT DECLARATION	IV
APPROVAL PAGE	V
ACKNOWLEDGEMENTS	VI
ABSTRACT	VII
TABLE OF CONTENT	VIII-X
CHAPTER 1: INTRODUCTION	1-9
1.1 Background	1
1.1 Project Overview	1
1.2 Project Purpose	1
1.2.1 Scope of the project	1
1.2.2 Product Scope	1
1.2.3 Goals	1
1.3 Stackholders	2
1.3.1 Target User Profile and Tentative Elicitation Process	2
1.3.2 User profile for admin table	2
1.3.3 User profile for consumer table	2
1.4 Proposed System Model	3
i. Why choose Waterfall-Model	3
ii. How I used Waterfall-Model	4
1.4 Waterfall Model Figure	5

1.5 Project Schedule	6
1.5.1 Grant Chart	7
1.5.2 WBS Planning for Development Phase	7
1.6 Related Work	9
1.7 Problems Statements	9
1.8 Proposed Solution	9
CHAPTER 2: SOFTWARE REQUIREMENTS AND SPECIFICATION	10-15
2.1 Software requirement specification	10
2.2 Functional Requirements	10-14
2.4 Software Requirements	15
2.5 Hardware Requirements	15
CHAPTER 3: SYSTEM ANALYSIS	16-43
3.1 Use Case Diagram	16
3.2 Use Case Description	17-26
3.3 Activity Diagram	27-33
3.4 Sequence Diagram	34-41
3.5 Entity Relationship Diagram	42
3.6 Class Diagram	43
CHAPTER 4: DEPLOYMENT TOOLS AND TECHNOLOGIES	44-45
4.1 Tools and Technologies	44
4.2 Motive behind selecting Tools and Technologies	44-45

CHAPTER 5: USER MANUAL	46-52
CHAPTER 6: SYSTEM TESTING	53-57
6.1 Testing Features	53
6.1.1 Features to be tested	53
6.1.2 Features not to be tested	53
6.2 Testing Strategies	54
6.2.1 Test Approach	54
6.2.2 Pass/Fail Criteria	54
6.2.3 Suspension and Resumption	54
6.2.4 Testing schedule	55
6.2.5 Tracability Matrix	55
6.3 Testing Environment	56
6.3.1 Hardware Requirement	56
6.3.2 Software Requirement	56
6.4 Test Cases	57
CHAPTER 7: PROJECT SUMMARY	58-59
7.1 Limitations	58
7.2 Obstacles and Achievements	58
7.3 Future Plan	59
7.4 Github Link	59
7.5 Live website Link	59
REFERENCES	60

CHAPTER 1

INTRODUCTION

1.1 Project Overview

The project “**Smart Medicine Corner (Medi+Call)**” is a web based e-commerce site where user can appoint a doctor for consulting and also can buy any types of essentials medicines/ needed items.

To use this features they must have to login/signup by their phone number. By using the OTP code returned to the users phone number, they can take any specialist doctors appointment or purchase their required medicines or others essentials.

1.2 Project Purpose

The purpose of this project is to create a Smart medicine corner (MediCall) System for all the citizens nationwide. To deliver a cost effective and time saving smart way to appoint doctors.

1.2.1 Scope of the Project

The proposed software product Smart medicine corner (MediCall) System. It will be used to provide the health service as much as possible through virtual communication to make appointment with doctors.

1.2.2 Product Scope

Over the last few year information technology has become inseparable part of the medical sphere. Where the developed countries are in the era of wireless medicine, we should at least focus on provide the proper health service to the citizens. According to a statistic by BTRC (2019) more than 15 million smartphone or internet user in Bangladesh, among them a major number of user has downloaded a medical or fitness app at least once. If we can in ensure the services, then it can be a great amount of potential to both start-up and entrepreneurs.

1.2.3 Goals:

- ensure medicine advices,
- easy doctor appointments,
- user-friendly service,
- determines the price at which the service provided

1.3 Stakeholders

All of the common people and doctors of Bangladesh.

1.3.1: Target User Profile and Tentative Elicitation Process

1.3.2: User Profile for Admin (Table)

User Class	Note on Characteristics
Type of user	Admin
Age range	25-40
Frequency of use	Daily
Mandatory	Yes
Computer experience	Yes
Education	Yes
goal	Manage Product/Orders
Language skills	Bangla, English
Number of users	1-5
Training	Yes
Others system use	Yes
Way of working	Online at office

Table: User Profile for Admin

1.3.3: User Profile for Consumer (Table)

User Class	Note on Characteristics
Type of user	Consumer
Age range	18-70
Frequency of use	On requirements
Mandatory	No
Computer experience	Yes
Education	No
goal	Order Medicine
Language skills	Bangla,English
Number of users	Unlimited
Training	No
Others system use	No
Way of working	Online

Table: User Profile for Consumer

1.4 Proposed System Model

The proposed system model usually explain what the developers are going to do in this project. Which model are followed in this project? What is the project related to and what are the new features of the new project over another existing project? Explanation deatils are given below:
[figure-1]

i. Why choose Waterfall-Model

For this project the proposed system model is the Waterfall Model. Because

- There are no mystical requirements.
- Requirements are very evidently and permanent
- Sufficient resources with required specialist
- Concise project.
- It is suitable to use this model because the technology is well obtained.

ii. How I used Waterfall-Model

1. A planning idea from real life about the problems.
2. Collecting user requirements and changes are adopted for competitive benefit.
3. Solidify on delivering software oftentimes.
4. Project must be based on people who are inspired. Given them the proper situation and confirmation that they want.
5. Self organized teams commonly generate the best designs. Steady attention to technical greatness and good design will improve agility.
6. Plainness is considered to be the art of record the work that is not done, and it is necessary.
7. At exact break, the team puts their solidify on how to become more effective and they will adjust their behavior accordingly.
8. Regular observation manpower were mindful to test the system.

1.4: WATERFALL MODEL

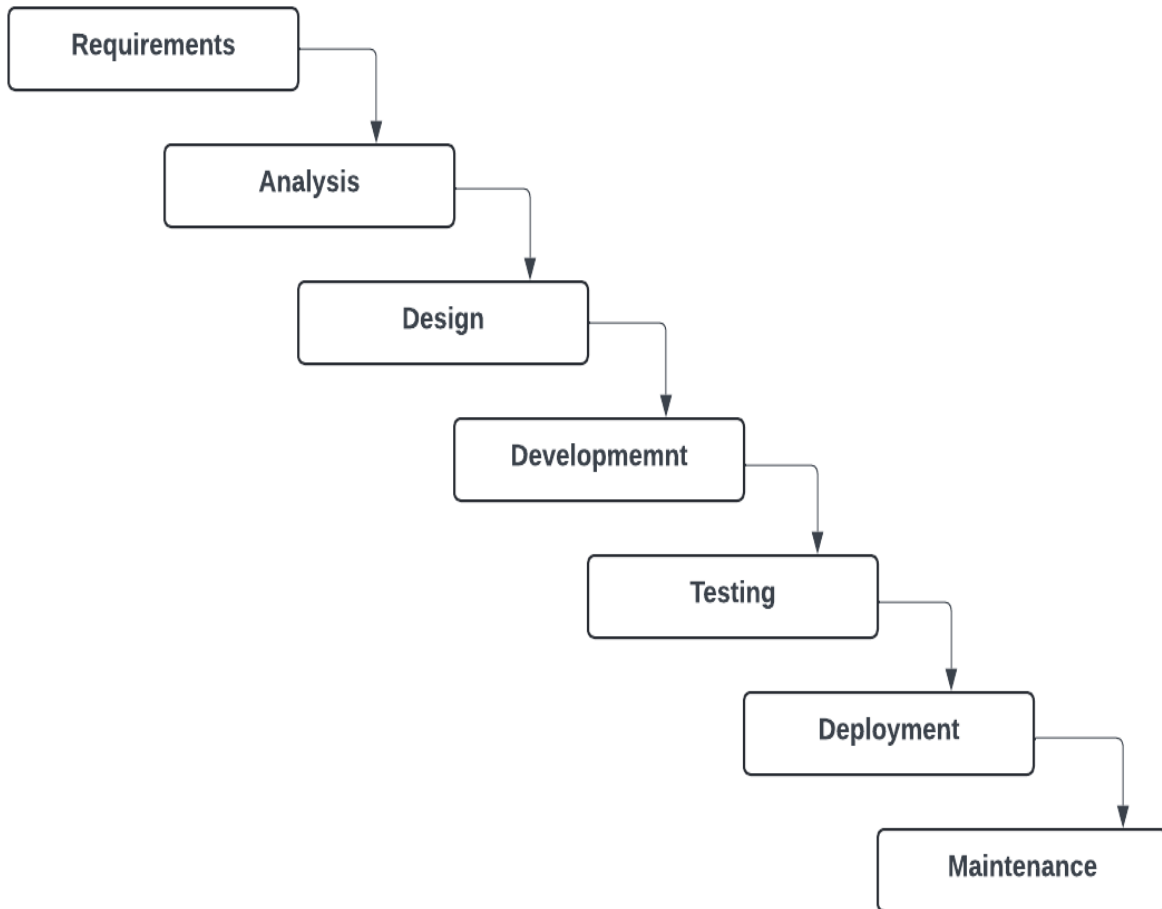


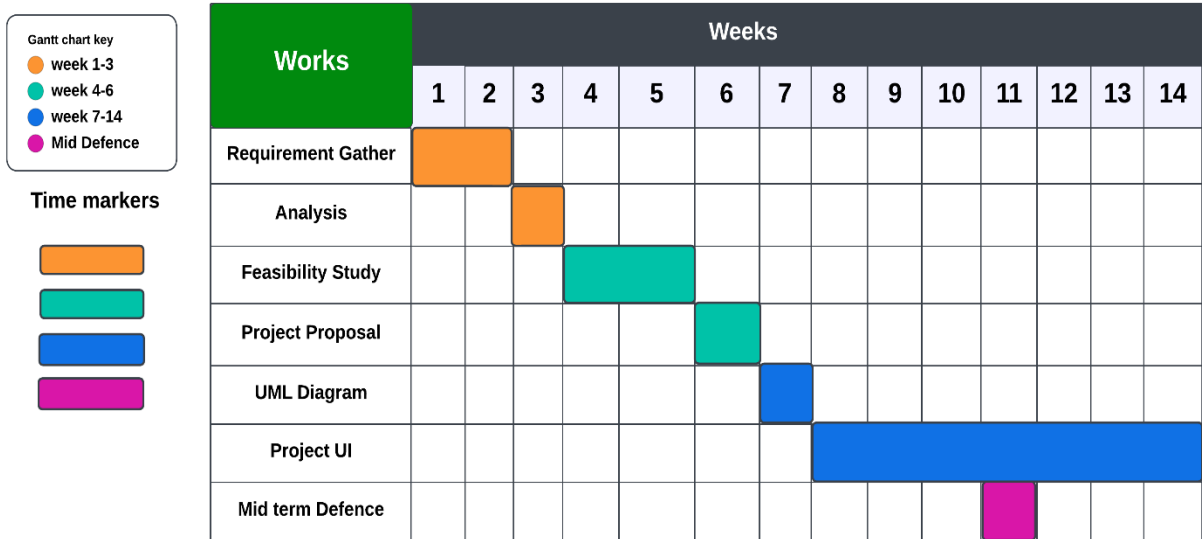
Figure 1: Project Proposed Model (Waterfall)

1.5 Project Scedule

In project management, a scedule is a chart of the project's successive step, performance and deliverables generally with desired start and finish dates. It give details of when the project begin and when it will conclusion and how much time is overpast on each of the segment of the project model and also the deliverance date. A scedule is generally used in the project schema and project portfolio management segment of project management.

1.5.1 Gantt Chart

A gantt chart is a sequence of horizontal lines shows the volume of work performed or production completed in certain periods in relation to the amount planned for those periods. [Figure 2]



1.5.2 WBS Planning for Development Phase

1. Project Plan [20th January to 27th January 2024]
2. Requirement gathering [28th January to 10th February]
3. Analysis [11th February to 17th February]
 - Brainstorming
 - Interview
 - Observation
 - Implementation Analysis
4. Feasibility Study [18th February to 3rd March]
5. Design [4th March to 17th March]
 - System design
 - Database design and Implementation
 - UML design
 - System User Interface (UI)
6. Development [18th March to 14th November]
 - User Module
 - Administrator Module
 - Others
7. Testing [15th November to 1st December]
 - Test plan
 - Test Case
 - Test Execution
8. Release Plan

Release	Version	Date
1 st Release	Beta version 1.0.0	05 December 2024
2 nd Release	Beta version 1.0.1	10 December 2024
3 rd Release	Stable version 1.1.0	17 December 2024

1.6 Related Work

There is a little number of online medicine corner in Bangladesh. But it becomes difficult to get their services in a very short time all over Bangladesh. But as my project is specific to a district. That's why it will be able to serve people in a very short period of time.

1.7 Problem Statements

Medicine is the monumental items in our everyday life. Some of online pharmacy provide all the medicine but when a medicine becomes urgent and important for a patient, it can lead to adverse events if it is not available at the right time. They fail to reach the medicine to the desired destination on time.

1.8 Proposed Solution

In my online doctor and medicine corner which I am going to develop there will be solution for a specific district for all the above problems. Which named "Medi+Call" will help all the people of a specific district will be able to order any types of medicine, medical equipment, baby or ladies required item what they can want. And that too in a very short time and at the right price without any hassle.

CHAPTER 2

SOFTWARE REQUIREMENTS SPECIFICATION

2.1 Software Requirements Specification

A Software Requirements Specification document narrate the desired purpose, necessity and behavior of the software to be developed. It also comprised the construction and expense of the software. Intension of this SRS document is to impart a detailed overview of our software product, its parameters and goals. It narrates the project's aim audience and it's user interface, hardware, software and functional and non-functional requirement. It carifies how user, administrator and developers view the products and its effectiveness.

2.2 Functional Requirements

Functional requirements are compulsory for any system. Functional requirements are given below for this system:

Table 2.2.1: Login User

ID: FR-01
Requirement Name: Login User
Description: User can input valid Phone Number and OTP Code for successful login
Stakeholders: Admin, Consumer, Doctor

Table 2.2.2: Logout

ID: FR-02
Requirement Name: Logout User
Description: When the user logs out, the user's session is completely closed
Stakeholders: Admin, Consumer, Doctor

Table 2.2.3: Insert Medicine

ID: FR-03
Requirement Name: Insert Medicine
Description: Administrator can input valid products for the consumer
Stakeholders: Admin

Table 2.2.4: View Medicine

ID: FR-04
Requirement Name: view Medicine
Description: User can take a look and know about all the products on the web page
Stakeholders: Admin, Consumer, Doctor

Table 2.2.5: Edit Medicine

ID: FR-05
Requirement Name: Edit Medicine
Description: User can take a look and edit their all the products
Stakeholders: Admin

Table 2.2.6: Delete Medicine

ID: FR-06
Requirement Name: Delete Medicine
Description: User can take a look and if they want, they can delete their specific products
Stakeholders: Admin

Table 2.2.7: Add to Cart

ID: FR-07
Requirement Name: Add to cart
Description: consumer can buy any medicine or necessary products what they want
Stakeholders: Consumer

Table 2.2.8: Search Medicine

ID: FR-08
Requirement Name: Search Medicine
Description: consumer can search any medicine or necessary products what they want
Stakeholders: Consumer

Table 2.2.9: Upload Prescription

ID: FR-09
Requirement Name: Upload Prescription
Description: consumer can upload a prescription photo for their needed medicine
Stakeholders: Consumer

Table 2.2.10: Submit Order

ID: FR-10
Requirement Name: Submit Order
Description: consumer can submit or confirm their order for needed medicine
Stakeholders: Consumer

Table 2.2.11: Book Appointment

ID: FR-11
Requirement Name: Book Appointment
Description: A consumer can book an appointment for doctors consulting
Stakeholders: Consumer

Table 2.2.12: Approve Prescription

ID: FR-12
Requirement Name: Approve Prescription
Description: Admin check the prescription medicine. If it is available, he will approve it.
Stakeholders: Admin

Table 2.2.13: Reject Prescription

ID: FR-13
Requirement Name: Reject Prescription
Description: Admin check the prescription medicine. If it is not available, he will reject it.
Stakeholders: Admin

Table 2.2.14: Confirm Delivery

ID: FR-14
Requirement Name: Confirm Delivery
Description: After consumer order, admin will confirm delivery and staff will deliver
Stakeholders: Admin, Staff

Table 2.2.15: Approve Appointment

ID: FR-15
Requirement Name: Approve Appointment
Description: After consumer appoint request doctor can approve the request
Stakeholders: Doctor

Table 2.2.16: Reject Appointment

ID: FR-16
Requirement Name: Reject Appointment
Description: After consumer appoint request doctor can reject the request
Stakeholders: Doctor

Table 2.2.17: Complete Appointment

ID: FR-17
Requirement Name: Complete Appointment
Description: After doctor consulting an consumer appointment counted as completed appointment
Stakeholders: Doctor

Table 2.2.18: Data Privacy

ID: FR-18
Requirement Name: Data Privacy
Description: The system can provide the safety of its users' valuable information
Stakeholders: Admin

2.3 Software Requirements

Operating System: Linux (Ubuntu 24.04 or CentOS 7,8)

Frontend: Django Template Engine 5.04

Backend: Python (Django 5.04)

Database: PostgreSQL 16.3

Code Editor: JetBrains (PyCharm 2024.1.4)

2.4 Hardware Requirements

Processor: 1 Core CPU

RAM: 1 GB (2GB Recommended)

Hard Disk: At least 500 MB of free space

CHAPTER 3

SYSTEM ANALYSIS

3.1 USE CASE DIAGRAM

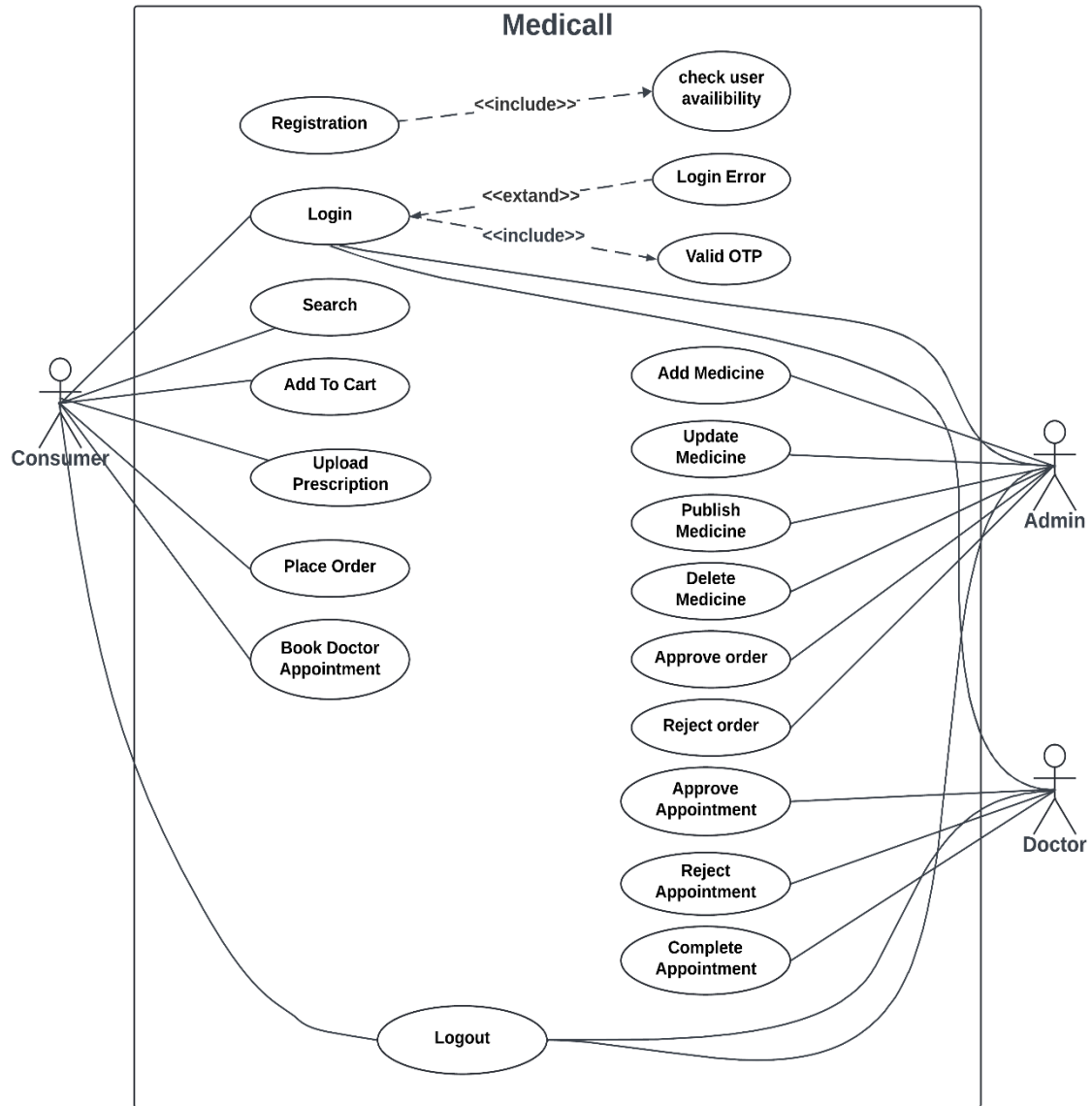


Figure 3: Use case Diagram

3.2 USE CASE DESCRIPTION

Table 3.2.1: Use Case Description of Login

Use Case No.	01	
Use Case Name	Login	
Actor	Consumer	
Trigger	Consumer hits the login button.	
Brief Description	The consumers of the system will have facility to login to get their explained services	
Stakeholders	Consumer	
Precondition	<ol style="list-style-type: none"> 1. Consumer must have a valid phone number. 2. Consumer must not have a previous login session. 	
Post Condition	Consumers can access the system	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Consumer enter into the website. 2. Consumer enter the phone number in the input field. 3. Consumer enter OTP Code in the OTP field. 	<ol style="list-style-type: none"> 1. Service will redirect consumer to dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. If consumer is not registered on the system then an error message will be showed that Consumer Account isn't exists. 2. If OTP code is wrong then an error message will be displayed. 3. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.2: Use Case Description of Login

Use Case No.	02	
Use Case Name	Login	
Actor	Admin	
Trigger	Admin hits the login button.	
Brief Description	The admins of the system will have facility to login to get their explained services.	
Stakeholders	Admin	
Precondition	<ol style="list-style-type: none"> 1. Admin must have a valid phone number. 2. Admin must not have a previous login session. 	
Post Condition	Admins can access the system	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Admin enter into the admin dashboard. 2. Admin enter the phone number in the input field. 3. Admin enter OTP Code in the OTP field. 	<ol style="list-style-type: none"> 1. Service will redirect Admin to Admin dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. Admin is not registered on the system then an error message will be showed that Admin Account isn't exists. 2. If OTP code is wrong then an error message will be displayed. 3. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.3: Use Case Description of Login

Use Case No.	03	
Use Case Name	Login	
Actor	Doctor	
Trigger	Doctor hits the login button.	
Brief Description	The Doctors of the system will have facility to login to get their explained services.	
Stakeholders	Doctor	
Precondition	<ol style="list-style-type: none"> 1. Doctor must have a valid phone number. 2. Doctor must not have a previous login session. 	
Post Condition	Doctors can access the system	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Doctor enter into the Doctor dashboard. 2. Doctor enter the phone number in the input field. 3. Doctor enter OTP Code in the OTP field. 	<ol style="list-style-type: none"> 1. Service will redirect Doctor to Doctor dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. If Doctor is not registered on the system then an error message will be showed that Doctor Account isn't exists. 2. If OTP code is wrong then an error message will be displayed. 3. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.4: Use Case Description of Registration

Use Case No.	04	
Use Case Name	Registration	
Actor	Consumer	
Trigger	Once Consumer hits the Registration button.	
Brief Description	The Consumers of the system will have facility to register to get start using this explained services.	
Stakeholders	Consumer	
Precondition	<ol style="list-style-type: none"> 1. Consumer must have a valid phone number. 2. Consumer should not be previous registered. 	
Post Condition	Consumers can access the system	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Consumer enter into the system. 2. Consumer enter the phone number into the input field. 3. Consumer enter OTP Code in the OTP field. 	<ol style="list-style-type: none"> 1. Service will redirect Consumer to system dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. If Consumer already registered on the system then an error message will be showed that Consumer Account already exists. 2. If OTP code is wrong then an error message will be displayed. 3. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.5: Use Case Description of Registration

Use Case No.	05	
Use Case Name	Registration	
Actor	Doctor	
Trigger	Once Admin hits the Approve Doctor Registration button to registered a Doctor.	
Brief Description	The Doctors of the system will have facility to register to get start using this explained services.	
Stakeholders	Doctor	
Precondition	<ol style="list-style-type: none"> 1. Doctor must have a valid phone number. 2. Doctor should not be previous registered. 	
Post Condition	Doctors can access the system	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Doctor enter into the Doctor Dashboard. 2. Doctor enter the phone number into the input field. 3. Doctor enter OTP Code in the OTP field. 	<ol style="list-style-type: none"> 1. Service will redirect Doctor to Doctor dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. If Doctor already registered on the system then an error message will be showed that Doctor Account already exists. 2. If OTP code is wrong then an error message will be displayed. 3. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.6: Use Case Description of Add Medicine

Use Case No.	06	
Use Case Name	Add Medicine	
Actor	Admin	
Trigger	Admin hits the Add Medicine button.	
Brief Description	The Admin of the system will have facility to add medicine into the system dashboard.	
Stakeholders	Admin	
Precondition	1. Admin must have registred.	
Post Condition	Admin can access the add medicine system.	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Admin enter into the system Dashboard to add medicine. 2. Admin enter the medicine information into the input field. 3. Admin enter Price in the Price field. 	<ol style="list-style-type: none"> 1. Service will redirect Admin to Admin dashboard.
Exception Condition	<ol style="list-style-type: none"> 1. If Admin already added a medicine on the system then an error message will be showed that Medicine already added. 2. If any field is blank then the error will show about required information can't be blank. 	

Table 3.2.7: Use Case Description of Update/Edit Medicine

Use Case No.	07	
Use Case Name	Update/Edit Medicine	
Actor	Admin	
Trigger	Admin hits the Edit/Update Medicine button.	
Brief Description	The Admin of the system will have facility to Update medicine into the system dashboard.	
Stakeholders	Admin	
Precondition	1. Admin must have registred.	
Post Condition	Admin can access the Update medicine system.	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Admin enter into the system Dashboard to Update medicine. 2. Admin select the medicine and update/edit information into the input field. 	<ol style="list-style-type: none"> 1. Service will redirect Admin to Admin dashboard.
Exception Condition	1. If any field is blank then the error will show about required information can't be blank.	

Table 3.2.8: Use Case Description of Delete Medicine

Use Case No.	08	
Use Case Name	Delete Medicine	
Actor	Admin	
Trigger	Admin hits the Delete Medicine button.	
Brief Description	The Admin of the system will have facility to Delete medicine into the system dashboard.	
Stakeholders	Admin	
Precondition	1. Admin must have registred.	
Post Condition	Admin can access the Delete medicine system.	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Admin enter into the system Dashboard to Delete medicine. 2. Admin select the medicine which he wants to delete. 3. Admin hits confirm button to delete. 	<ol style="list-style-type: none"> 1. Service will redirect Admin to Admin dashboard.
Exception Condition	1. If Admin already unavailable a medicine on the system then an error message will be showed that Medicine already unavailable.	

Table 3.2.9: Use Case Description of Search Medicine

Use Case No.	09	
Use Case Name	Search Medicine	
Actor	Consumer	
Trigger	Consumer hits the search bar option button.	
Brief Description	The consumers of the system will have facility to search needed medicine on the system dashboard.	
Stakeholders	Consumer	
Precondition	1. Consumer must have registered.	
Post Condition	Consumers can access the search medicine option into the system.	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Consumer enter into the system Dashboard. 2. Consumer hit the search option. 3. Consumer enter the medicine name into the search input field. 	<ol style="list-style-type: none"> 1. Service will redirect Consumer to search option.
Exception Condition	<ol style="list-style-type: none"> 1. If Consumer search a wrong medicine by misspelled on the system then an error message will be showed that Medicine not found. 	

Table 3.2.10: Use Case Description of Upload Prescription

Use Case No.	10	
Use Case Name	Upload Prescription	
Actor	Consumer	
Trigger	Consumer hits the Upload Prescription button.	
Brief Description	The consumers of the system will have facility to Upload Prescription for their needed medicine on the system dashboard.	
Stakeholders	Consumer	
Precondition	1. Consumer must have registered.	
Post Condition	Consumers can access the Upload Prescription into the system.	
Flow of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Consumer enter into the system Dashboard. 2. Consumer hit the Upload Prescription option. 3. Consumer select a picture of their prescription. 4. Consumer hit the Upload button. 	<ol style="list-style-type: none"> 1. Service will redirect Consumer to Upload Prescription option.
Exception Condition	<ol style="list-style-type: none"> 1. If Consumer does not select picture then an error message will be showed that Picture not found. 	

3.3 ACTIVITY DIAGRAM

Activity Diagram for Registration

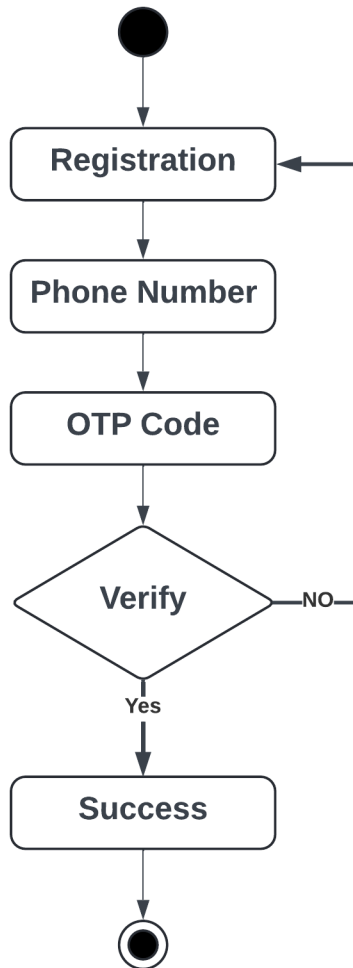


Figure 4: Activity Diagram of Consumer Registration

Activity For Add Medicine

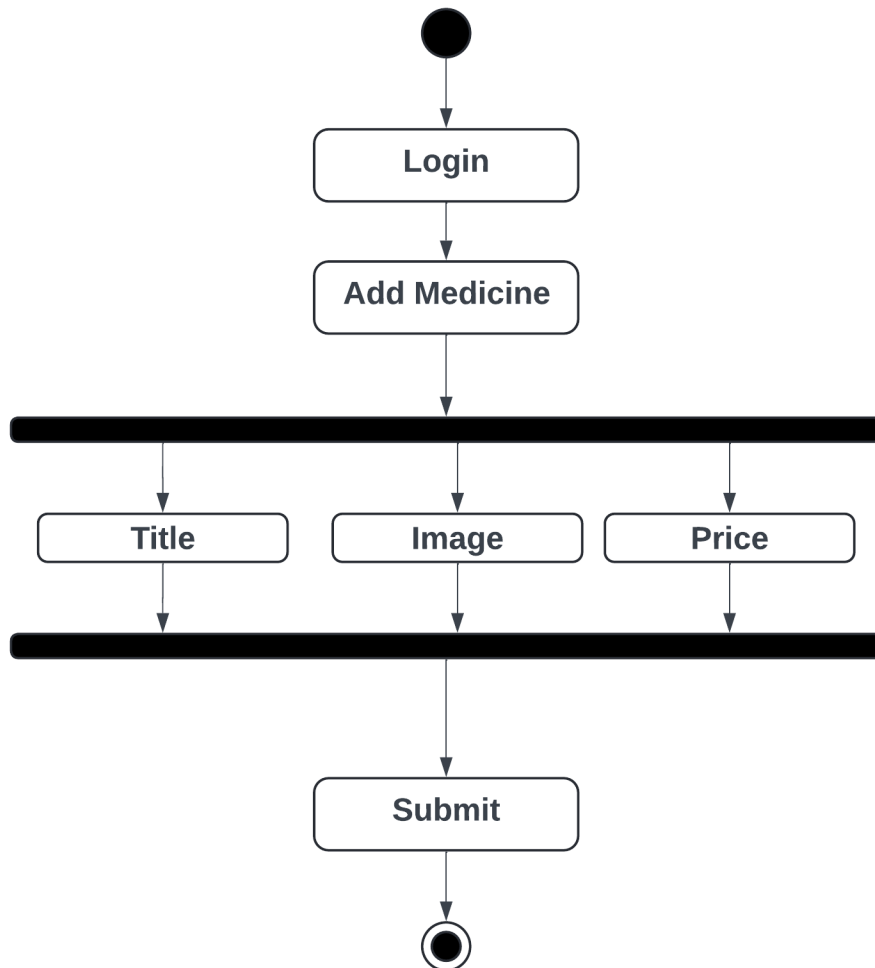


Figure 5: Activity Diagram of Add Medicine

Activity For Booking Doctor Appointment

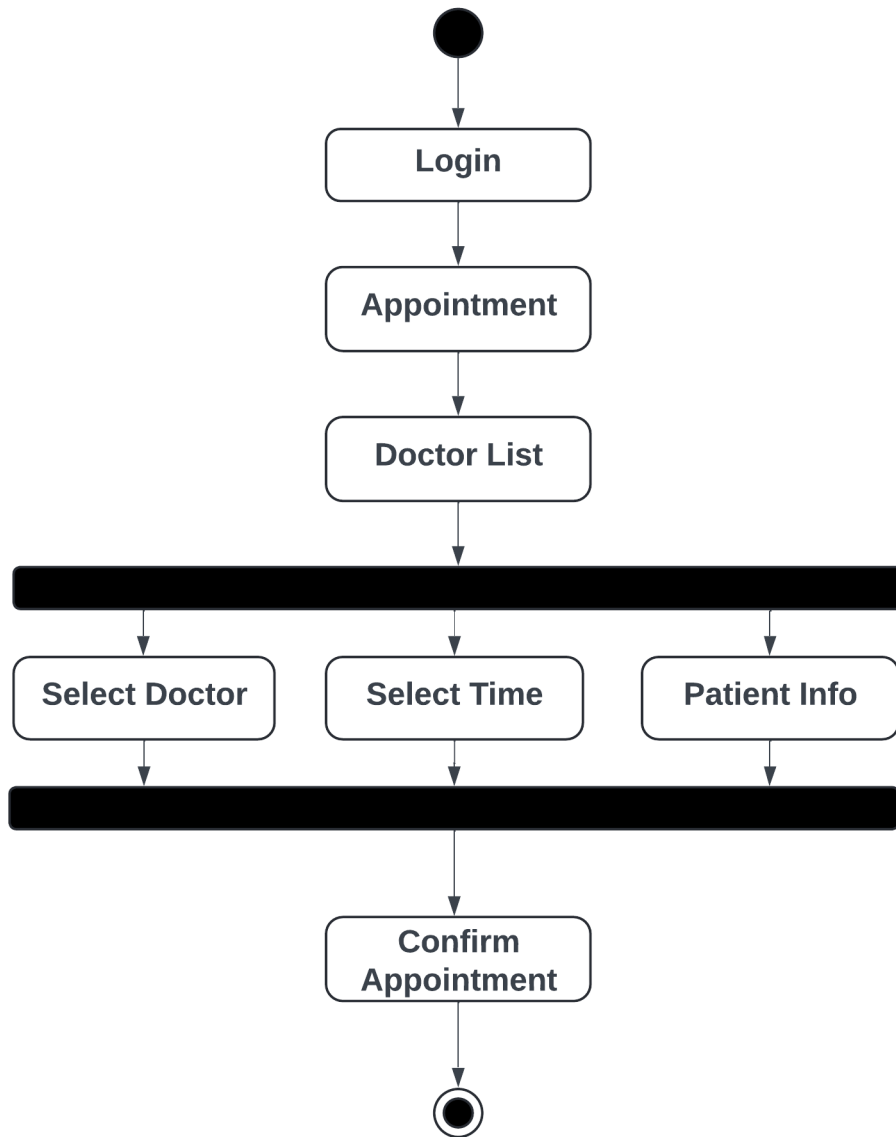


Figure 6: Activity Diagram of Booking for Doctor Appointment

Activity For Prescription Upload

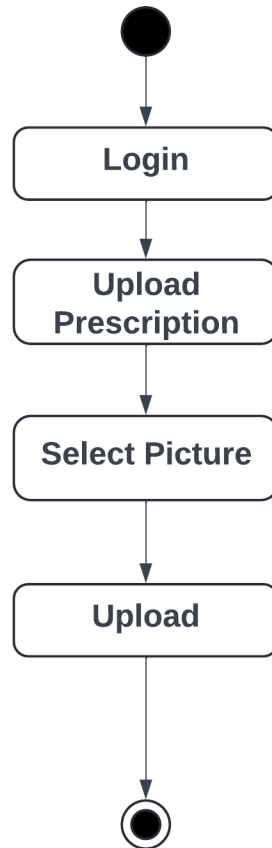


Figure 7: Activity Diagram of Upload Prescription

Activity For Add to Cart

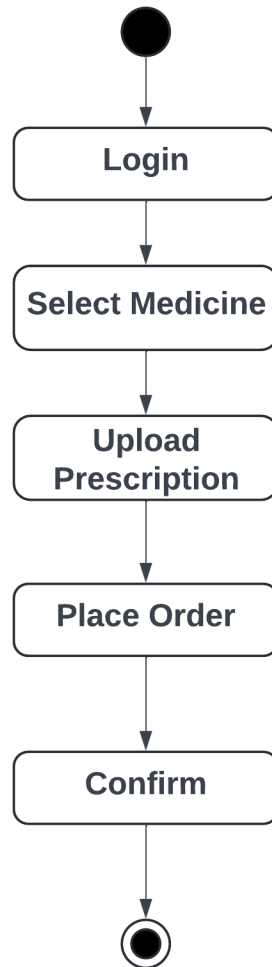


Figure 8: Activity Diagram of Add to Cart

Activity For Oder Approval

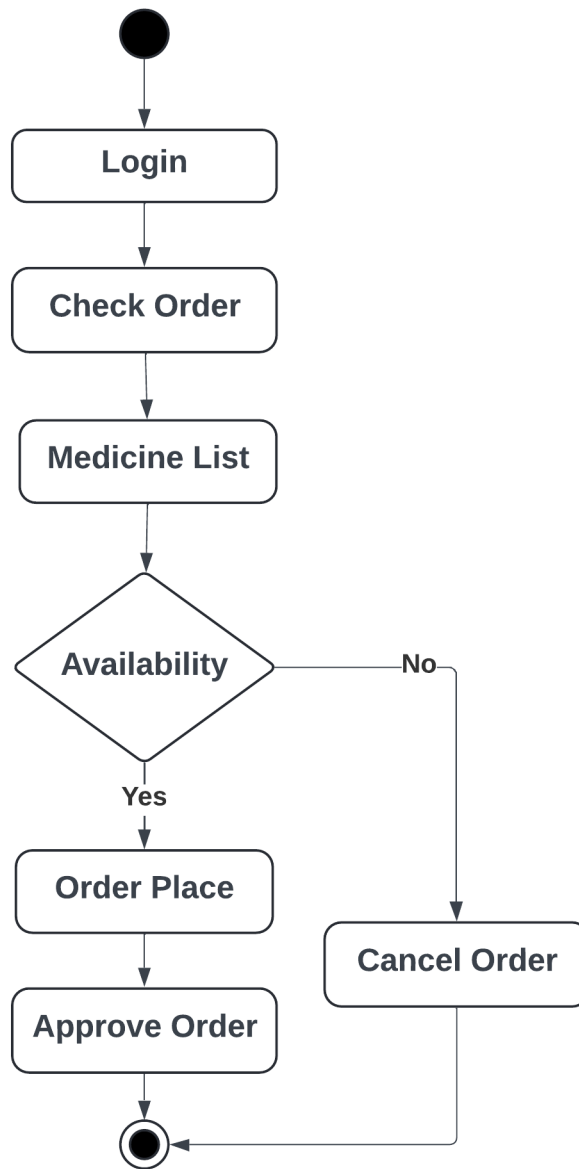


Figure 9: Activity Diagram of Order Approval

Activity For Logout

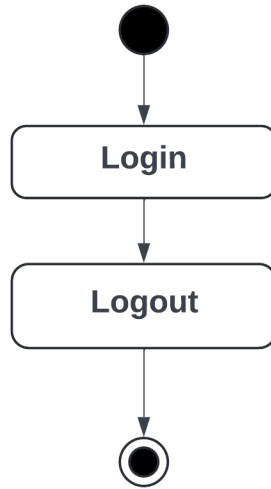


Figure 10: Activity Diagram of Logout

3.4 SEQUENCE DIAGRAM

Sequence Diagram for Registration

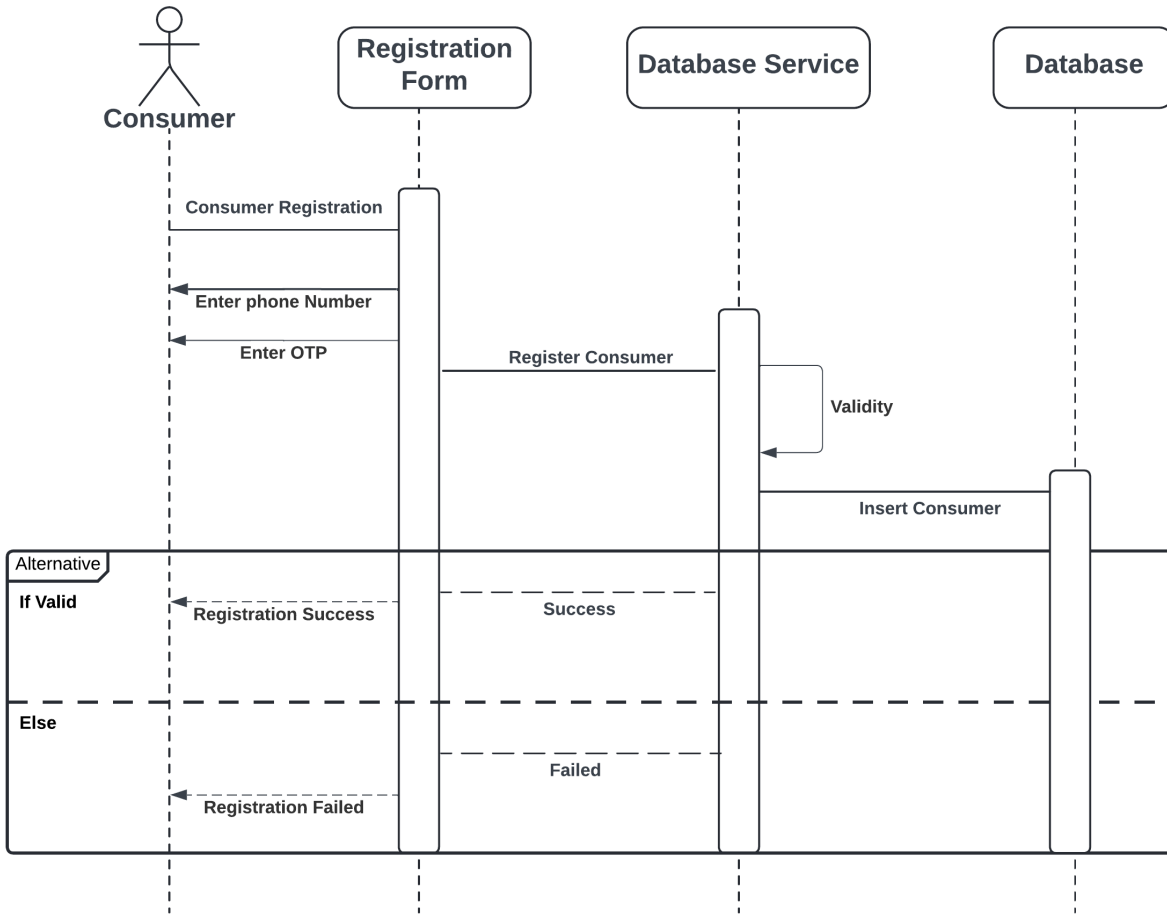


Figure 11: Sequence Diagram for Registration

Sequence Diagram for Consumer Login

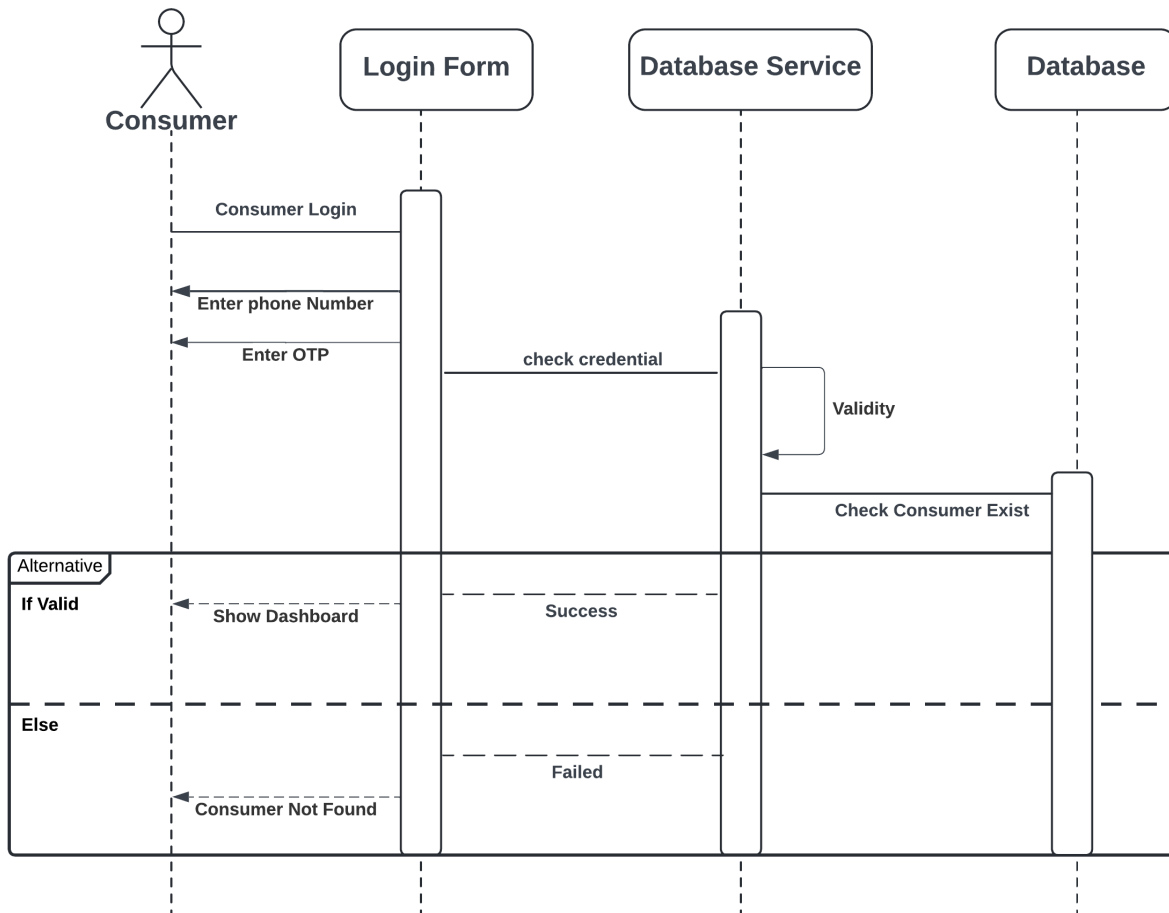


Figure 12: Sequence Diagram for Registration

Sequence Diagram for Appointment

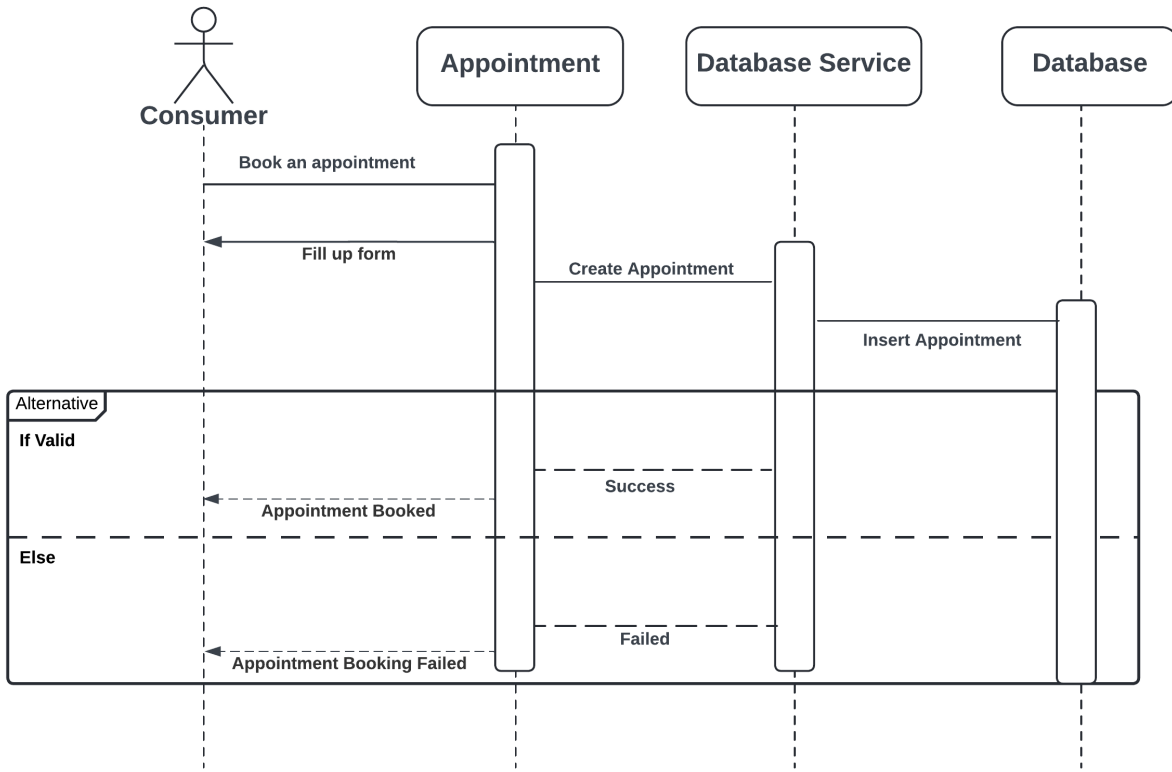


Figure 13: Sequence Diagram for Appointment

Sequence Diagram for Upload Prescription

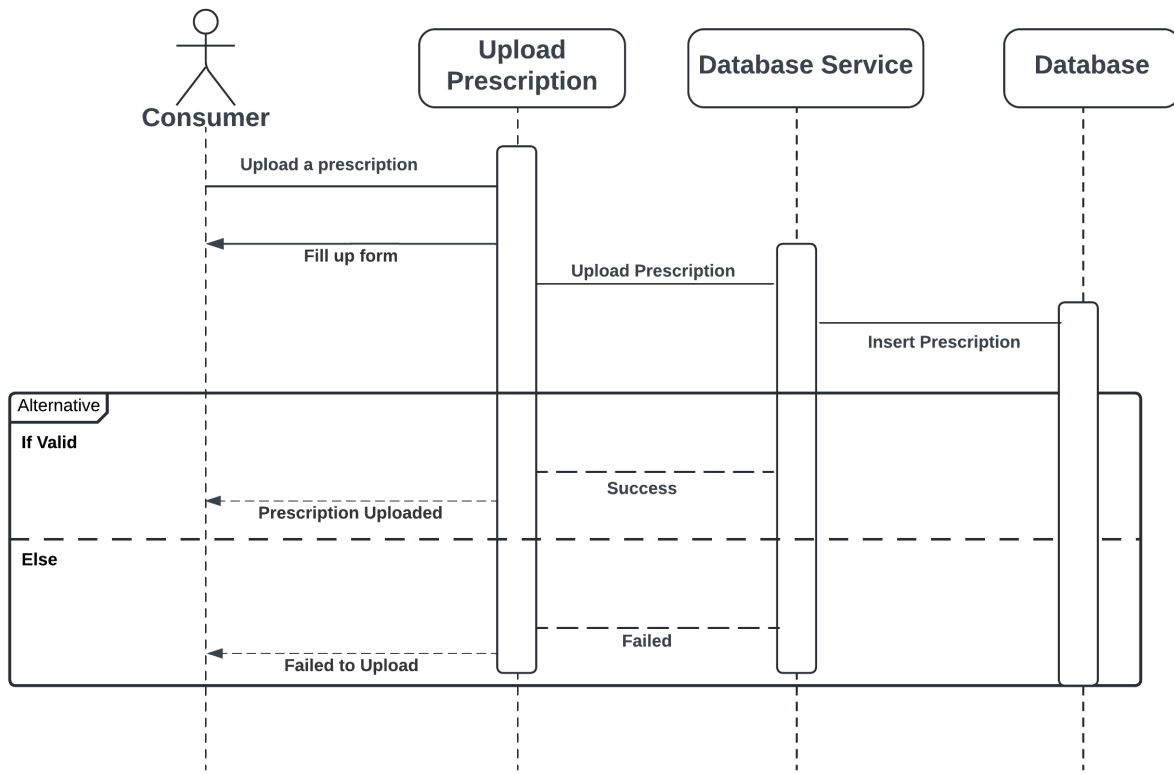


Figure 14: Sequence Diagram for Upload Prescription

Sequence Diagram for Approve Appointment

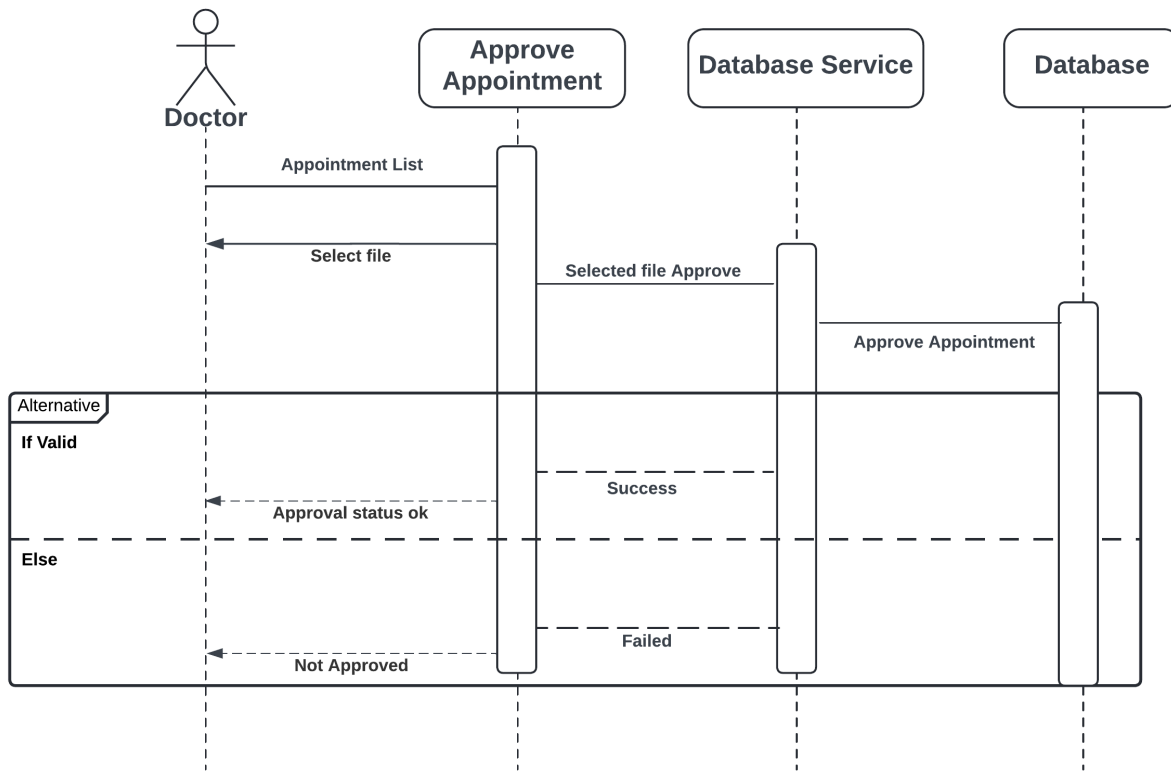


Figure 15: Sequence Diagram for Approve Appointment

Sequence Diagram for Add Medicine

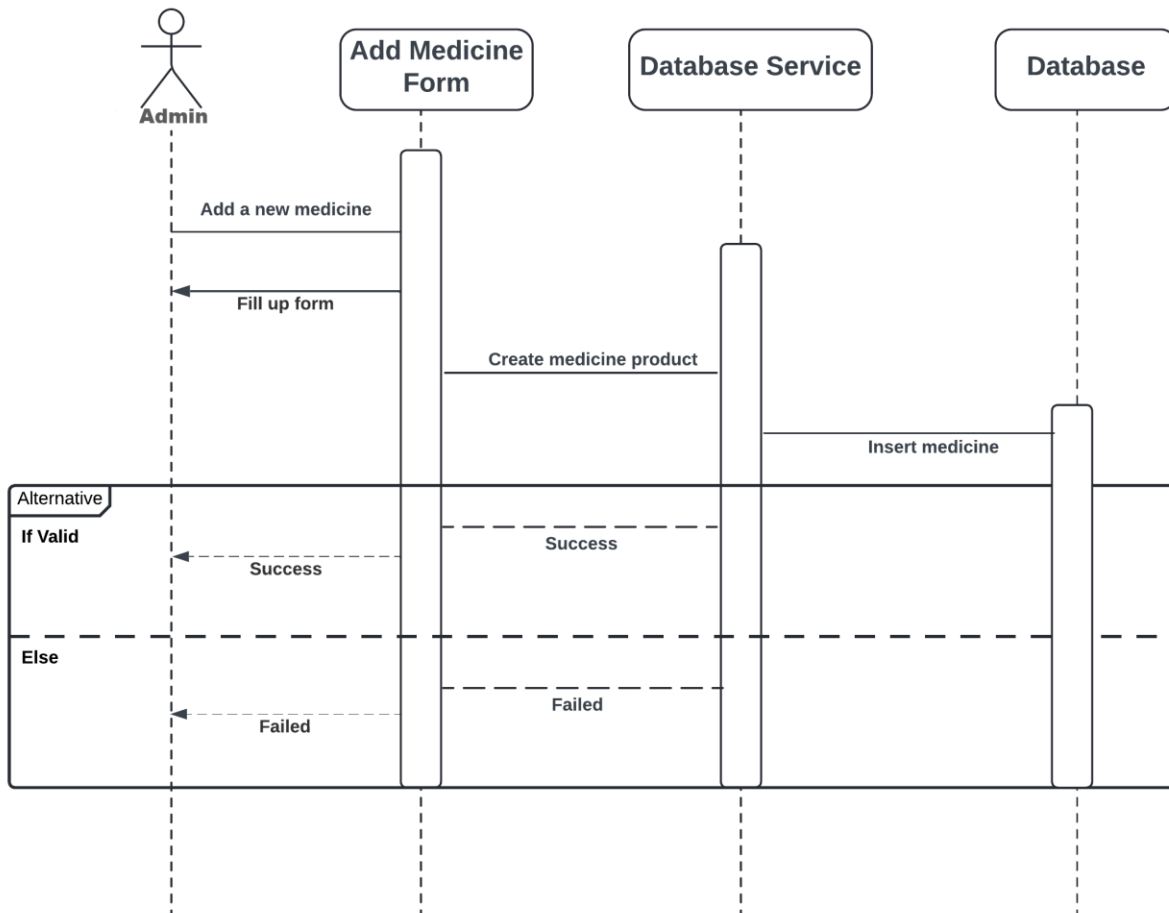


Figure 16: Sequence Diagram for Add Medicine

Sequence Diagram for Edit Medicine

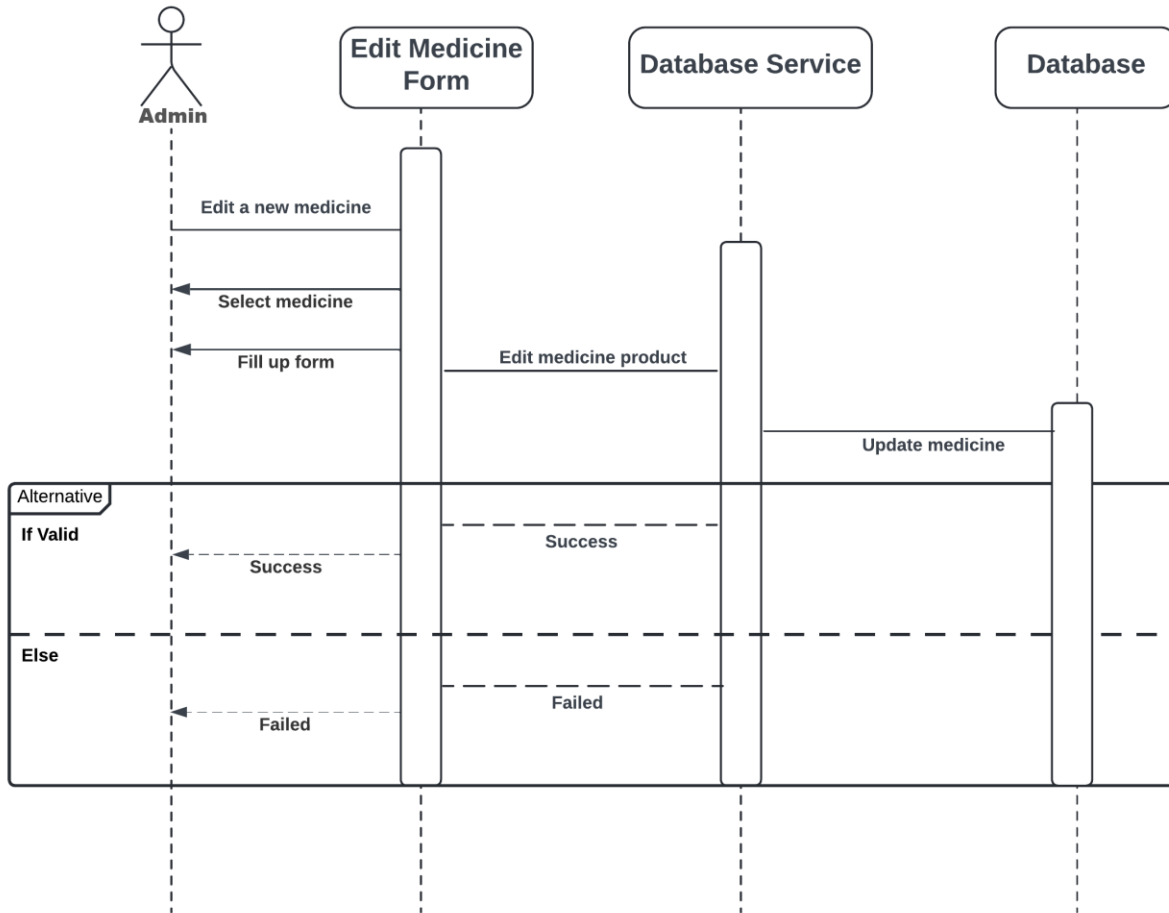


Figure 17: Sequence Diagram for Edit Medicine

Sequence Diagram for Delete Medicine

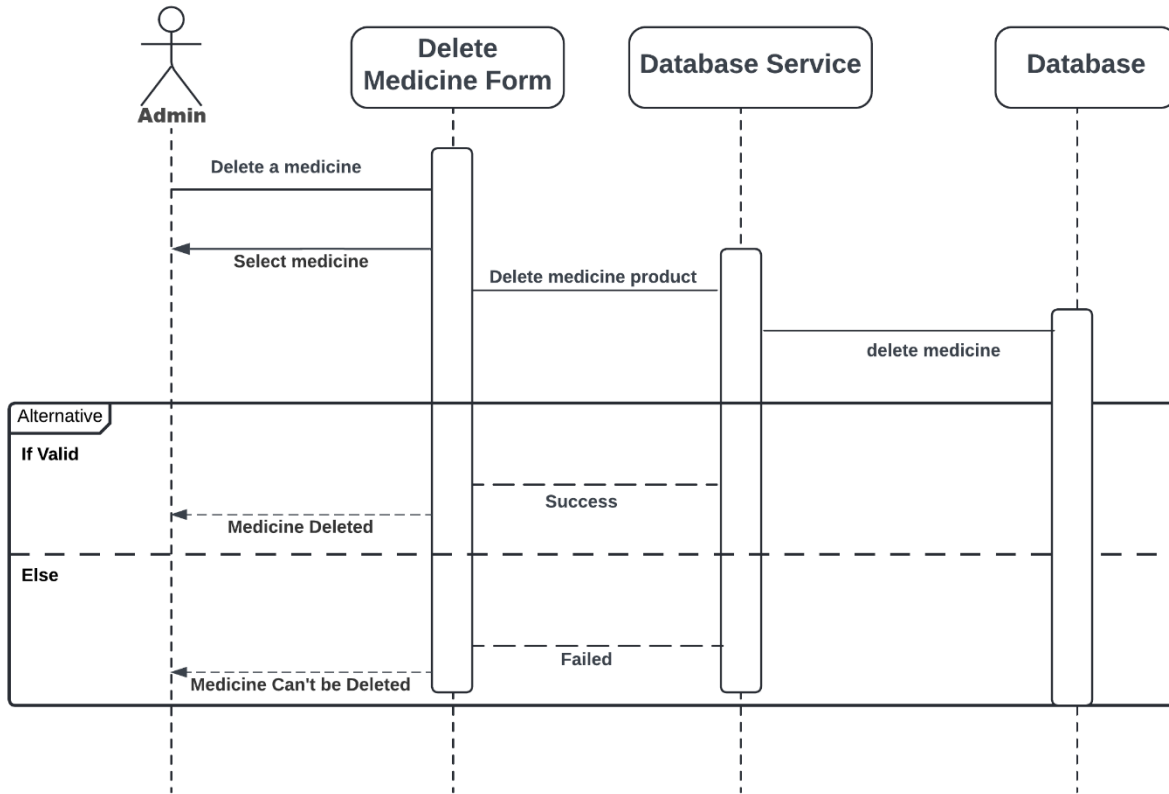


Figure 18: Sequence Diagram for Delete Medicine

3.5 ENTITY RELATIONSHIP DIAGRAM

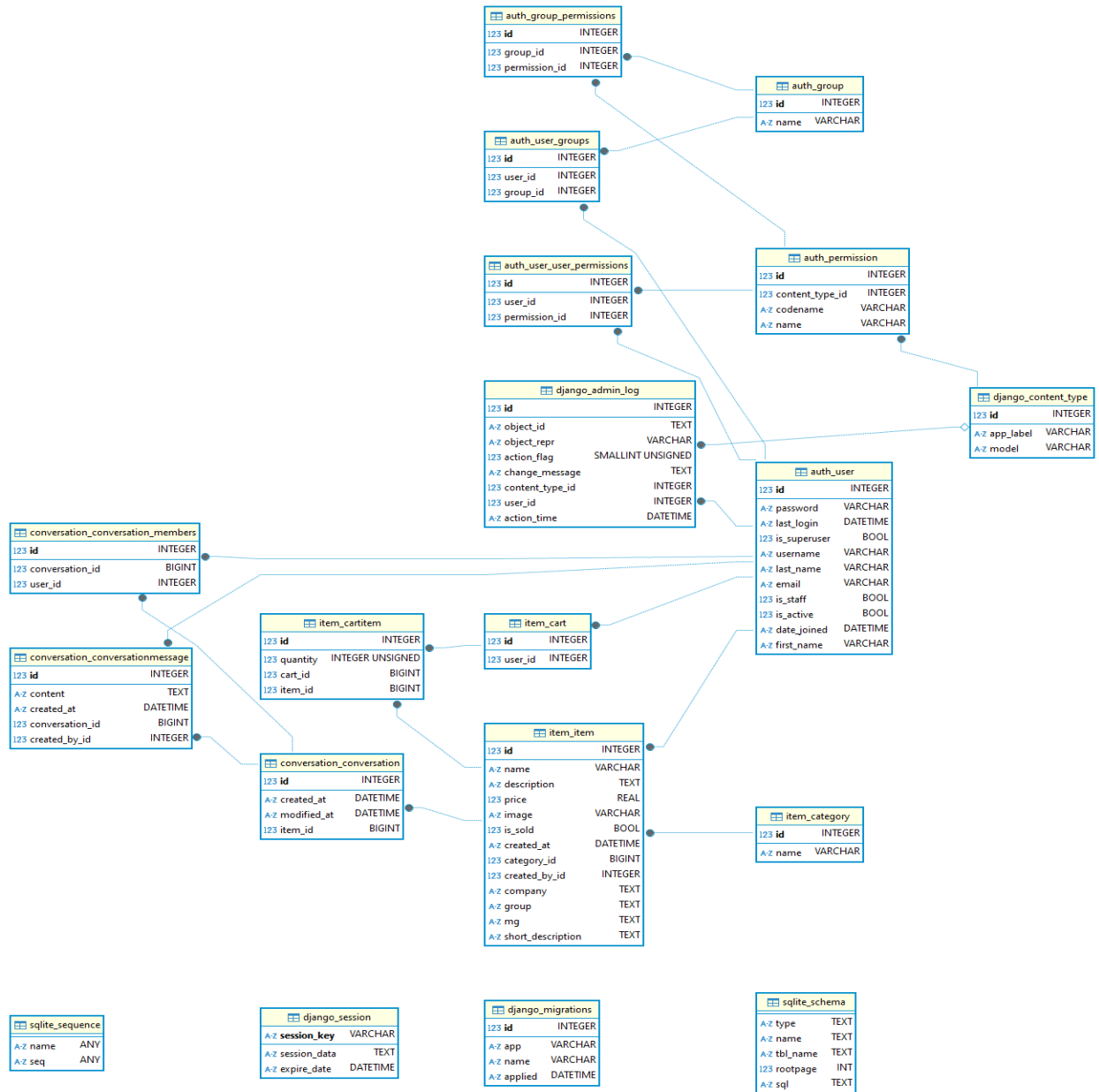


Figure 19: Entity Relationship Diagram

3.6 CLASS DIAGRAM

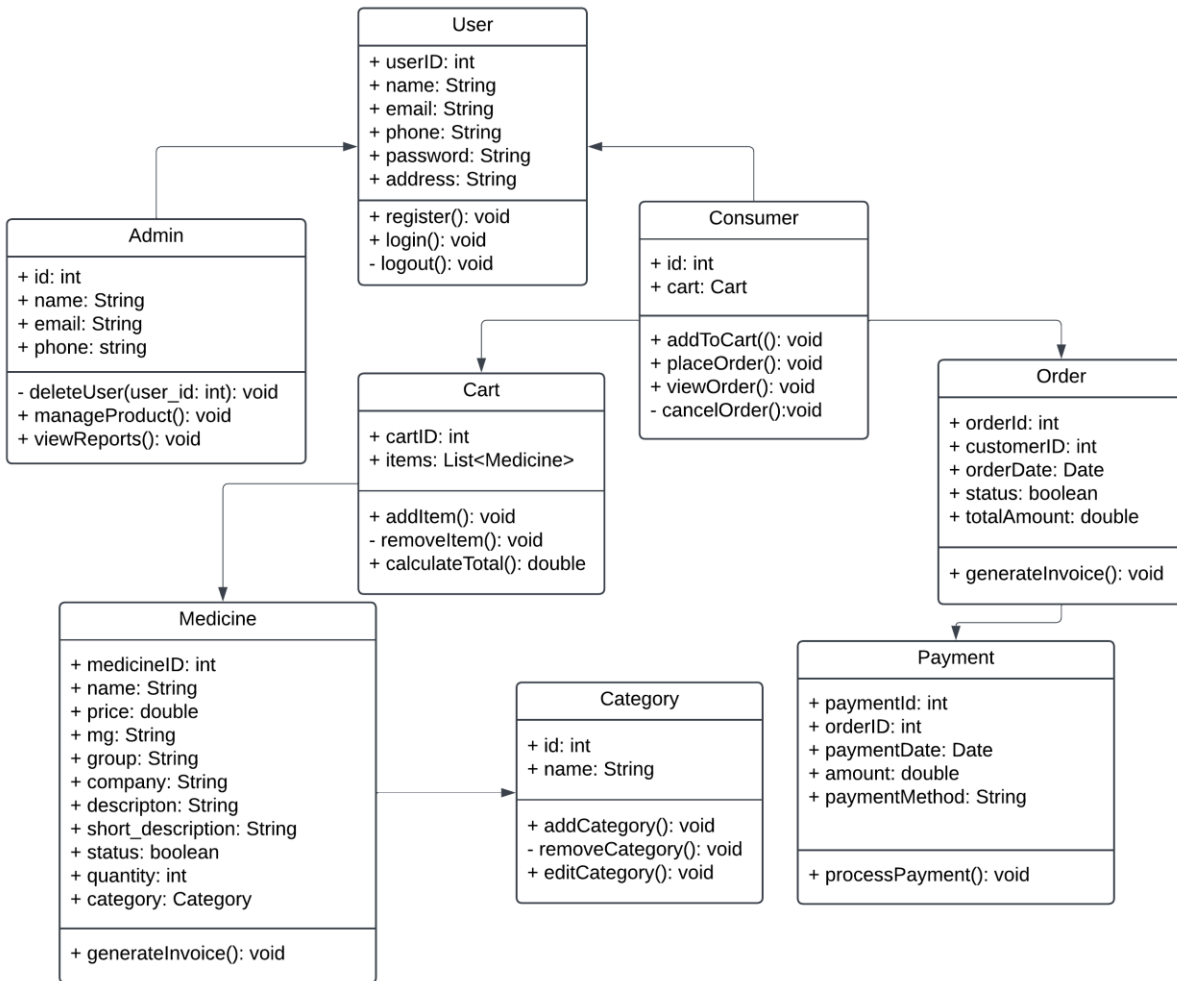


Figure 20: Class Diagram

CHAPTER 4

DEVELOPMENT TOOLS AND TECHNOLOGIES

4.1 Tools And Technology

The recommended system “Smart Doctor Appoint & Medicine (MediCall)” is a web application. I have used several tools and technologies to develop this software are given below:

- **Presentation Layer:** HTML5, JavaScripts
- **Presentation Layer Frameworks:** tailwindCSS 3.4.4
- **Application Layer:** Python 3.12
- **Application Layer Frameworks:** Django 5.04,
- **Data Layer:** PostgreSQL 16.3
- **Tools:** JetBrains (PyCharm 2024.1.4), PIP, Google Chrome
- **Application Layer Testing:** Unit Test

4.2 Motive behind Selecting Tools and Technologies

- **HTML5:** HTML5 used to structuring and presenting hypertext documents of a web page. There are latter-day tags to structure web page.
- **JavaScripts:** JavaScripts is a crystal clear interpreted programming language with superior functions. It has a numerous favored frameworks to construct front-end layers and there is the benefit for component and state based development.
- **TailwindCSS:** CSS (Cascading Style Sheet) is a stylesheet language used for narrating the presentation of a document written in a markup language such HTML. It is a foundation technology of the WWW, sidewise HTML and JavaScripts.
- **Python:** Python is a upward level, extensionally used programming language. Python supports composite programming paradigms, including structured and functional programming.
- **PIP:** pip is a package installer for python. Its used to install and manage software package. The python cornerstone commendation using pip for installing python application.
- **Django:** Django is a high-level python web framework that encourage development and clean, pragmatic design. It's free and open source.

- **PostgreSQL:** PostgreSQL is an advanced relational database system. PostgreSQL supports both relational and non-relational queries. It's free and open source.
- **PyCharm:** PyCharm is a hybrid platform developed by JetBrains as an IDE (Integrated Development Environment) for Python. Its deliver code analysis, a graphical debugger, unit tester and maintain web development with Django.
- **Google Chrome:** Google Chrome is a well liked and greatest browser with the facility of inspecting the console and network tab sidewise checking the DOM structure.
- **Unit Test:** A unit test is a block of code that verifies the accuracy of a smaller, isolated block of application code, typically a function or method. The unit test is designed to check that the block of code runs as expected, according to the developer's theoretical logic behind it. The unit test is only capable of interacting with the block of code via inputs and captured asserted output.

CHAPTER 5

CONSUMER MANUAL

MediCall+ [Browse Medicine](#) [Sign Up](#) [Log in](#)

MediCall+
Login

Username

Password

[Log in](#)

MediCall+
Tosar Ahmed.
B.Sc in Software Engineering
at Daffodil International University.

[About](#)
[Contact](#)
[Privacy Policy](#)
[Use of Terms](#)

Fig: User Login

User Registration

Sign Up

Username

Your Username

Email

Your Email Address

Password

Enter Password

Repeat Password

Confirm Password

Submit

[Already have an account](#)

MediCall+

Tosar Ahmed,
B.Sc in Software Engineering
at Daffodil International University.

[About](#)
[Contact](#)
[Privacy Policy](#)
[Use of Terms](#)

Fig: User Signup

Homepage

Most popular Medicine











 <p>Napa Extra TK 30.0</p> <p>Add to Cart +</p>	 <p>Napa Extend TK 22.0</p> <p>Add to Cart +</p>	 <p>Pantonix TK 95.0</p> <p>Add to Cart +</p>	 <p>Savlon Baby Wet Wipes TK 217.0</p> <p>Add to Cart +</p>	 <p>Insulin Syringe (Korean)100IU TK 10.0</p> <p>Add to Cart +</p>
 <p>Sergel TK 65.0</p>	 <p>Ceevit 250 mg TK 15.0</p>	 <p>Vasco 250 mg TK 15.0</p>	 <p>NeoCare Baby Wipes 120 packs TK 220.0</p>	 <p>Savlon Baby Wipes 160 packs TK 250.0</p>

Fig: Homepage

Browse Medicine

MediCall+ Browse Medicine Add Medicine Cart Dashboard Logout

Find your items ... Search

Categories

- OTC Medicine
- Baby Care
- Diabetic Care

Clear Filter

Clear











 <p>Napa Extra TK 30.0</p> <p>Add to Cart +</p>	 <p>Napa Extend TK 22.0</p> <p>Add to Cart +</p>	 <p>Pantonix TK 95.0</p> <p>Add to Cart +</p>	 <p>Savlon Baby Wet Wipes TK 217.0</p> <p>Add to Cart +</p>
 <p>Insulin Syringe (Korean)100IU TK 10.0</p> <p>Add to Cart +</p>	 <p>Sergel TK 65.0</p> <p>Add to Cart +</p>	 <p>Ceevit 250 mg TK 15.0</p> <p>Add to Cart +</p>	 <p>Vasco 250 mg TK 15.0</p> <p>Add to Cart +</p>
			

Fig: Browse Medicine

Search Medicine

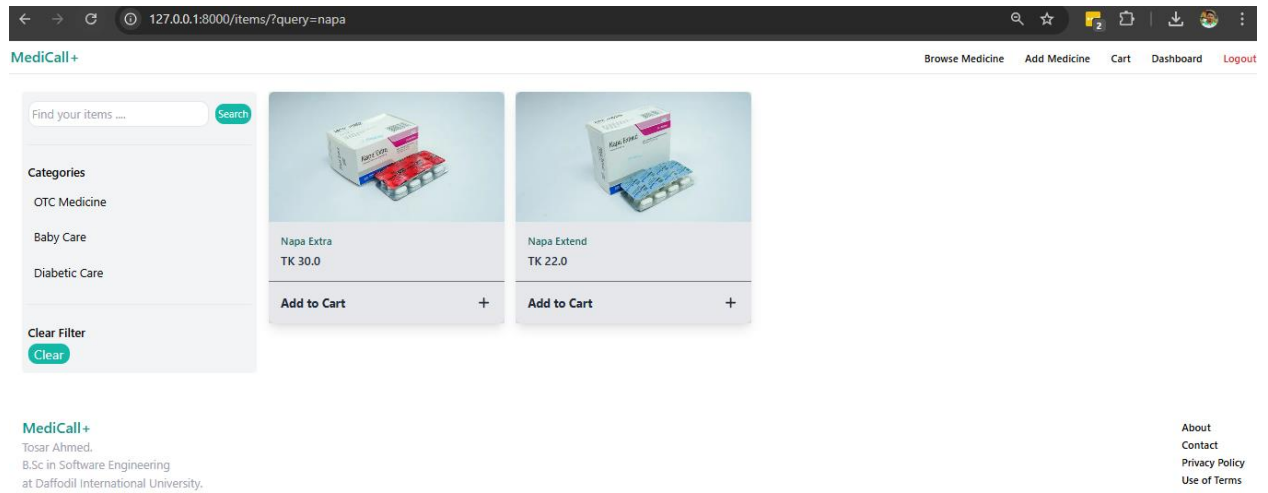


Fig: Search Medicine

Search By Category

MediCall+ Browse Medicine Add Medicine Cart Dashboard Logout

Find your items ... Search

Categories

- OTC Medicine
- Baby Care**
- Diabetic Care

Clear Filter Clear









 <p>Savlon Baby Wet Wipes TK 217.0</p> <p>Add to Cart +</p>	 <p>NeoCare Baby Wipes 120 packs TK 220.0</p> <p>Add to Cart +</p>	 <p>Savlon Baby Wipes 160 packs TK 250.0</p> <p>Add to Cart +</p>	 <p>Dettol Anti Bacterial Wet Wipes TK 75.0</p> <p>Add to Cart +</p>
 <p>Pozzy Baby Wet Towel Wipes 120 packs TK 240.0</p> <p>Add to Cart +</p>	 <p>NeocareNewBorn TK 605.0</p> <p>Add to Cart +</p>	 <p>Baby Cotton Buds 200 pcs TK 100.0</p> <p>Add to Cart +</p>	 <p>Meril Baby Gel Toothpaste (Orange) 45 gm TK 100.0</p> <p>Add to Cart +</p>

Fig: Search Medicine by category

Medicine Details



Savlon Baby Wet Wipes

Baby Wet Wipes

Key Information:

- Unit/Dose: 80 pcs
- Group: Baby Wipes
- Company: ACI Consumer Ltd

217.0 TK

[Add to Cart](#)

Important Information:

Please consult with a healthcare professional before use. Keep out of reach of children.

Detailed Description

Savlon Baby Wet Wipes (80 pcs)

Fig: Product/Medicine Details

CHAPTER 6

SYSTEM TESTING

6.1 Testing Features

6.1.1 Features to be Tested

Features to be Tested contain the features or functionalities of the system which will be tested. Features to be tested are noted below.

No.	Features/Functionality
01	Consumer Login
02	Logout
03	Search Medicine
04	View Dashboard
05	Add to Cart
06	Confirm Order

Table 6.1.1: Features to be Tested

6.1.2 Features Not Tested

Which features or functionality are in relation to other features that is already tested, it is listed as “Features not to be listed as tested”. Features not to be tested are noted below.

No.	Features/Functionality
01	View medicine by order
02	List of reviews
03	Loading Spinner
04	Cancel Order

Table 6.1.2: Features Not Tested

6.2 Testing Strategies

6.2.1 Test Approach

Testing is the most important steps of the Software development lifecycle. There are numerous testing approaches, I conduct API and UI Testing individually. A few checks that I pursued are below list-

- Verify page response status code.
- Testing UI input fields are performing rightly or not.
- Verify redirection URLs.

6.2.2 Pass/Fail Criteria

When all the test cases of a features practically performed without any problem and got desired result then test passed.

Contrariwise, when all the test cases of a features exposed failed status on automation testing process then it plotted as failed.

6.2.3 Suspension and Resumption

Suspension can occur when the external components are not smoothly available or when an efficient bugs marked. Test-stop criteria for the testing process is also known as suspension. Essentially testing processes are suspended when genuine result is not same as desired result.

When suspension criteria is fit then resolve the bug and restart the testing phase again, it is ruled as resumption. If drawback is no track out then resumption shut down.

6.2.4 Testing Schedule

This project principally concentration on functional testing. The testing schedule is noted below-

System Study		Write Test Cases		Backend Testing	Integration Testing
03.08.24	09.08.24	11.08.24	16.08.24	21.10.24	18.12.24

Table 6.2.4: Testing Schedule

6.2.5 Traceability Matrix

Req. ID	Req. Description	Test Case ID	Status
FR-01	Consumer Login	TC-01	TC-01 Passed
		TC-02	TC-02 Passed
		TC-03	TC-03 Passed
FR-02	Logout	TC-04	TC-04 Passed
		TC-05	TC-05 Passed
FR-03	Search Medicine	TC-06	TC-06 Passed
		TC-07	TC-07 Passed
		TC-08	TC-08 Passed
		TC-09	TC-09 Passed
FR-04	View Dashboard	TC-10	TC-10 Passed
		TC-11	TC-11 Passed
FR-05	Add to Cart	TC-12	TC-12 Passed
		TC-13	TC-13 Passed
		TC-14	TC-14 Passed
		TC-15	TC-15 Passed
FR-06	Confirm Order	TC-16	TC-16 Passed
		TC-17	TC-17 Passed
		TC-18	TC-18 Passed

Table 6.2.5: Testing Traceability Matrix

6.3 Testing Environment

Testing Environment is an environment setup we conduct for testing.

6.3.1 Hardware requirements:

- Processor: 1 Core
- CPU Frequency: 1.40-2.50 GHZ
- RAM: 1 GB
- ROM: 10 GB
- System: x64

6.3.2 Software requirements:

- OS: Linux (Debian)
- Browser: Chromium or Firefox
- Testing report: Microsoft Excel
- Backend Testing: Django Unit Test

6.4 Test Cases

ID	Test Case	Expected Result
Test Case 1	user login with corect credentials	Redirect to dashboard
Test Case 2	User login with incorrect credentials	Show credentials error message
Test Case 3	Sign out	Redirect user to authentication page
Test Case 4	Search medicine with medicine name	Show search result with matching medicine name
Test Case 5	Search medicine with category name	Show medicine list according to searched category
Test Case 6	Add medicine to cart	Show medicine in cart
Test Case 7	Place order	Order goes to admin panel for approval
Test Case 8	Admin add medicien	Show medicine in dashboard
Test Case 9	Admin delete medicine	Delete medicine fom database and remove from dashboard

CHAPTER 7

PROJECT SUMMARY

7.1 Limitations

- This application does not provide any medicine recommendation for disease treatment
- This full application did not fully optimized due to lack of enough time.

7.2 Obstacles and Achievement

Obstacle:

- For real time product status update at admin panel need asynchronous server feature. Where Django 5.2 does not provide any asynchronous features.
- Did not use any caching or cdn for faster response. For this kind of feature require high quality, high cost server.
- Did not add multi language (I18n) Feature in this application as it is not required. Also not possible in short time.

Achievement:

- This system has been developed using following software development methodologies. Like followed functional and non-functional requirements. UML diagrams. Testing.
- This application is able to be fast without using caching and cdn as we hosted on a High speed vps and used nginx proxy for faster response.

7.3 Future plan

So far this application development has been completed and it's working fine. But there are many features that can be added or improved like caching and CDN for a more faster experience.

I have planned to add the following features in the next version: \

- Redis caching (for database query)
- Cloudflare CDN (Content delivery network) for static files
- Doctor appointment system
- Live support

7.4 Github: <https://github.com/TosarAhmed/medicall->

7.5 Live Website Link: <https://medicall.tosarahmed.tech/>

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6. Lazzpharma: <https://www.lazzpharma.com/>
7. DBeaver: <https://dbeaver.io/>
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defence

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