

# **LAB REPORT**

*Submitted by*

**D.R.Deekshith (RA2111032010005)**

*Under the Guidance of*

**Dr. Gouthaman. P**

**Assistant Professor, Department of Networking and Communications**

*In partial satisfaction of the requirements for the degree of*

**BACHELOR OF TECHNOLOGY**  
in  
**COMPUTER SCIENCE AND ENGINEERING**  
with specialization in Internet of Things



**SCHOOL OF COMPUTING**

**COLLEGE OF ENGINEERING AND TECHNOLOGY SRM**  
**INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**KATTANKULATHUR - 603203**

**MAY 2023**



COLLEGE OF ENGINEERING & TECHNOLOGY SRM  
INSTITUTE OF SCIENCE & TECHNOLOGY  
S.R.M. NAGAR, KATTANKULATHUR – 603 203  
Chengalpattu District


### BONAFIDE CERTIFICATE

Register No. RA2111032010005 Certified to be the  
bonafide work done by D.R.Deekshith of II Year/IV Sem  
B. Tech Degree Course in the **Practical Course – 18CSC206J - Software Engineering and  
Project Management** in **SRM INSTITUTE OF SCIENCE AND TECHNOLOGY**,  
Kattankulathur during the academic year 2022 – 2023.



  
SIGNATURE 27/4/2023

Faculty In-Charge  
**Dr. Gouthaman. P**  
Assistant Professor  
Department of Networking and Communications  
SRM Institute of Science and Technology



SIGNATURE

**HEAD OF THE DEPARTMENT**  
**Dr. Annapurani Panaiyappan. K**  
Professor and Head,  
Department of Networking and Communications  
SRM Institute of Science and Technology

## ABSTRACT

Expanding extent of services are presently electronic services conveyed over the Internet. Internet and online websites has changed our way of shopping completely. As we know that almost everything is going to be online. The web has long been a source of medical data; it has just as of late been utilized for online shopping medical products. Now, medicines are also available online it can be order by mobile application or website, then the seller will be delivered it as soon as possible they will provide various payment options also viz. payment while buying through credit/debit card and cash on delivery. Several advantages and disadvantages of online medicines shopping are examined and can be discussed in this paper. Some important factors that should be keep in mind while shopping medicines are also discussed in this paper. This study is one of the first such studies, which helps people to buy medicines online it also promotes e-commerce and mcommerce.

Shopping of medicines and other medical products online is a good deal because it saves time, money, fuel and lots of problems like traffic jam. Also, one medical may not provide all the medicines. So may go to another medical it wastes lots of time, money etc. will be saved. This will lead profit in the Government money also and it is environment friendly. Nowadays, almost every literate person mainly youngsters wants to shop online as they don't have time to go to market and shop .One more thing it also saves some money. Once they shopped then the purchased items will be sending to their home or wherever they mentioned as their delivery addresses by Courier Company. This is the modern way of shopping as we have various options to buy different products from different sellers in different prices. This study examines whether the quality of online buying experience represents a competitive advantage for Internet firms focused on business to consumer ecommerce also.

Purchasing of medicines online is recently started so there is only little literature available. Less research papers are available on online medicines/medical products shopping. Some research papers are available showing benefits of selling medicines and medical products online. With expanded utilization of the web, more individuals access medications and health supplements on the web. However little is thought about components connected with utilizing internet purchasing.

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**LIST OF ABBREVIATIONS**

<b>NO</b>	<b>WORD</b>	<b>ABBREVIATION</b>
1	TSV	TREE STRUCTURE VIEW
2	WBS	WORK BREAKDOWN STRUCTURE
3	ER	ENTITY RELATION
4	DFD	DATA FLOW DIAGRAM
5	UI	USER INTERFACE
6	SWOT	STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS
7	RMMM	RISK MITIGATION, MONITORING AND MANAGEMENT



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1
Title of Experiment	To identify the Software Project, Create Business Case, Arrive at a Problem Statement
Name of the candidate	Deekshith. D. R
Team Members	K. Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	27-01-2023

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	4
Total		10	9

  
Staff Signature with date

**Aim**

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for Online medicine shopping.

**Team Members:**

S. No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Lead/Rep
2	RA2111032010005	Deekshith. D. R	Member
3	RA2111032010020	K.Mohan Charan	Member

**Project Title:** Online medicine shopping

**Project Description**

- This operates over the Internet and sends orders to customers through mail, shipping companies, or online pharmacy web portals.
- Online medicine shopping helps in saving the time of the customer
  - To provide computerized data storage facility. We can search easily any record.
  - All the stock of medicine is update automatically in the new system.
  - The system is user friendly and anyone having computer knowledge can handle it easily. Suitability for computerized data entry.
  - Maintaining stock, Supplier information, Customer information & bill information are easy.



# ONE PAGE BUSINESS CASE TEMPLATE

DATE	Jan 27,2023
SUBMITTED BY	Deekshith.D.R , K.Mohan Charan ,Akshat Singh
TITLE / ROLE	Online medicine shopping

LOG

## THE PROJECT

1. It gives them the opportunity to buy medicines online without going to the shop physically.
2. It provides the details of the prescribed medicines

## THE HISTORY

1. Online sales of medicines started in the late 1990s and began to spread rapidly around the world.
2. Price discounts and the comfort of shopping from home.
3. Indian e-Pharmacies, which emerged around 2015, have disrupted the market and gained traction rapidly.

## LIMITATIONS

1. There is no one you can contact face to face.
2. Resource and system-related constraints.

## APPROACH

1. A team of Full-Stack developers.
2. Contacts with the pharma companies.

## BENEFITS

1. Buying drugs on the internet also saves money. Studies show that buying drugs online can save a third of money in total.
2. Shares useful information about medicines and illnesses.
3. It helps in saving the time of customers.

**Result :** Thus, the project team formed, the project is described, the business case was prepared and the problem statement was arrived.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	2
Title of Experiment	Identification of Process Methodology and Stakeholder Description
Name of the candidate	D.R.Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	31-01-2023

Mark Split Up

S.No		Description	Maximum Mark	Mark Obtained
1	Exercise		5	5
2	Viva		5	5
		Total	10	10

Staff Signature with date

**Aim**

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

**Team Members:**

Sl No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep/Member
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	Deekshith. D. R	Member

**Project Title:****Selection of Methodology**

- Agile methodology is a flexible, iterative approach to software development that values customer collaboration and responding to change. It's well-suited for projects with rapidly changing or uncertain requirements, and it emphasises adaptability and frequent delivery of working software.
- For an online medicine project, Agile methodology can be a good choice as it allows for a more flexible and responsive development process. This is important because the requirements for an online medicine platform may change as the project progresses, and the development team needs to be able to quickly respond to these changes. Additionally, Agile methodology encourages close collaboration between the development team and the customer, which is important in this type of project where the user's needs and preferences are a key driver of the platform's success.
- Security can be incorporated into each sprint, allowing for a more secure platform from the start. This is especially important in online medicine projects, where sensitive patient information is handled.
- The healthcare industry is highly regulated, and regulations are constantly changing. Agile methodology allows for changes to be made throughout the development process, allowing the platform to quickly adapt to new regulations.

<b>Stakeholder Name</b>	<b>Activity/ Area / Phase</b>	<b>Interest</b>	<b>Influence</b>	<b>Priority (High/ Medium/ Low)</b>
Healthcare Providers	Providing medical advice and prescribing medicines, integration into platform, throughout the project.	Med	High	2
Pharmacies	Fulfilling medicine orders and delivering to customers, inventory management, throughout the project.	High	High	1
Regulators	Ensuring compliance with laws and regulations, platform design and development, throughout the project.	High	High	4
Investors	Providing financial resources, project progress and financial returns, throughout the project.	High	Med	5
Development team	Designing, developing and maintaining the platform, throughout the project.	High	High	3

Suppliers	Providing the medicines that are sold on platform, supply chain and inventory management throughout the project.	Med	Med	6
Customers	End users of platform, platform usage and experience, throughout the project.	Med	High	7

#### Result

Thus the Project Methodology was identified and the stakeholders were described.



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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	3
<b>Title of Experiment</b>	System, Functional and Non-Functional Requirements of the Project
<b>Name of the candidate</b>	D. R. Deekshit
<b>Team Members</b>	K.MohanCharan Akshat Singh
<b>Register Number</b>	RA2111032010005 RA2111032010020 RA2111032010021
<b>Date of Experiment</b>	07-02-2023

**Mark Split Up**

<b>S.No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	5
2	Viva	5	4
<b>Total</b>		<b>10</b>	<b>9</b>

*P. G. Sathyanarayanan*  
**Staff Signature with date**

## **Aim**

To identify the system, functional and non-functional requirements for the project.

## **Team Members:**

<b>S No</b>	<b>Register No</b>	<b>Name</b>	<b>Role</b>
<b>1</b>	RA2111032010021	Akshat Singh	<b>Rep/Member</b>
<b>2</b>	RA2111032010020	K.Mohan Charan	<b>Member</b>
<b>3</b>	RA2111032010005	D.R.Deekshith	<b>Member</b>

**Project Title:** < Online Medicine Shopping >

## **System Requirements**

- **Hardware:** A computer system with sufficient processing power, memory, and storage to run online platform.
- **Software:** An operating system such as Windows,MacOs or Linux.
- **Network Infrastructure:** A reliable and secure internet connection to support online transactions and communication between the customer, the pharmacy, and the supplier

## **Functional Requirements**

- **Product catalog:** An online catalog of prescription, health products, and related items, with detailed product information.
- **Customer account management:** The ability for customers to create and manage their own online account, including profile information, order history, and prescription information.
- **Order placement and tracking:** Customers should be able to place orders online, track their delivery status, and track their order on order status.
- **Payment processing:** The system support cash on delivery option.
- **Delivery management:** The ability for customers to choose delivery options, including delivery time and location and express delivery options with increased charges.
- **Customer support:** A customer care phone number to be provided.

### **Non-Functional Requirements**

- Usability: The user interface to be intuitive, user friendly and accessible.
- Reliability: The system should be available and operational.
- Security: The system should implement security measures to protect customer information and prevent unauthorized access.

### **Result**

Thus the requirements were identified and accordingly described.





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**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	4
<b>Title of Experiment</b>	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
<b>Name of the candidate</b>	D.R.Deekshith
<b>Team Members</b>	K.Mohan Charan Akshat Singh
<b>Register Number</b>	RA2111032010005
<b>Date of Experiment</b>	14-02-2023

**Mark Split Up**

<b>S.No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	5
2	Viva	5	3
<b>Total</b>		<b>10</b>	<b>8</b>

  
**Staff Signature with date**

roles and responsibilities

**Team Members:**

Sl No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Lead
2	RA2111032010005	D.R.Deekshith	Member
3	RA2111032010020	K.Mohan Charan	Member

## 1. Project Management Plan

Focus Area	Details
Integration Management	<p>Governance Framework</p> <ul style="list-style-type: none"><li>In the case of online medical shopping to enable Indian pharmaceuticals industry to play a leading role in the global market and to ensure abundant availability, at reasonable prices within the country, of good quality pharmaceuticals of mass consumption.</li></ul> <p>Project Team Structure</p> <ul style="list-style-type: none"><li>Project Manager</li><li>UI Designer</li><li>Implementation Team</li><li>Development Team</li></ul> <p>Roles &amp; Responsibilities of Team</p> <ul style="list-style-type: none"><li>Project manager: The project manager is responsible for overseeing the entire project, including defining project scope, creating and managing the project plan.</li><li>UI designer: They ensure that the system is user friendly and meet the needs of the customers.</li><li>Implementation team: They are responsible for ensuring that the system is properly installed, configured, and customized to the customer needs .</li><li>Development team: The development team is responsible for designing, building, and testing the Online medical shopping.</li></ul> <p>Change Management : process used to manage changes to online medical shopping to ensure that any changes made are properly planned, implemented ,executed and evaluated in a controlled and systematic manner.</p>

Scope Management	<p>Scope Statement : An online pharmacy platform is an effective model that helps to reach more customers, helps in better inventory management, better purchasing margins, competitive and reduced prices for medicines, and options for generic medicines.</p> <p>Define Deliverable: The quantifiable goods or services that must be provided upon the completion of a project.</p> <p>Requirement Change Control: The controlled set of actions necessary to ensure a change does not negatively impact a product's safety, efficacy, quality or compliance.</p> <p>Activities and Sub-Tasks: Identification, prevention, and resolution of drug-related problems</p>
Schedule Management	<p>Milestone: Milestones in a online medicine system project are significant events or achievements that mark the completion of a key phase or component of the project.</p> <ul style="list-style-type: none"> <li>• Requirement gathering</li> <li>• Hardware installation</li> <li>• User acceptance testing</li> </ul> <p>Schedule Control: It involves monitoring and controlling the project's schedule to ensure that it is completed on time and within budget.</p> <ul style="list-style-type: none"> <li>• Define projectschedule.</li> <li>• Communicate with stakeholders</li> <li>• Update projectschedule</li> </ul>

## 2. Estimation

### 2.1. Effort and Cost Estimation

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Design the user screen	E1R1A1T1 (Effort-Requirement-Activity-Task)	Confirm the user requirements (acceptance criteria)	3	1500
	E1R1A1T2	User interface	60-90	30000-45000
	E1R1A1T3	Compatability		
Identify Data Source for displaying units of Energy Consumption	E1R1A1T1	Go through Interface contract (Application Data Exchange) documents	5	2500
	E1R1A1T2	Document	20-30	10000-15000

Effort (hr)	Cost (INR)
1	500

## 2.2. Infrastructure/Resource Cost [CapEx]

Infrastructure Requirement	Qty	Cost per qty	Cost per item
Computers	3	150000	50000
Internet	50mbps	3000	3000
Laptops	5	200000	40000

## 2.3 Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per annum	Cost per item
People	Network, System, Middleware and DB admin  Developer , Support Consultant	3	2,000,000	6,000,000
License	Operating System Database Middleware IDE	10	10000	100,000
Infrastructures	Server, Storage and Network	20	20000	400,000

## 3. Project Team Formation

### 3.1. Identification Team members

Name	Role	Responsibilities
D.R.Deekshith	Key Business User (Product Owner)	Provide clear business and user requirements
Akshat Singh	Project Manager	Manage the project
K.Mohan Charan	Business Analyst	Discuss and Document Requirements
K.Mohan Charan	Technical Lead	Design the end-to-end architecture
D.R.Deekshith	UX Designer	Design the user experience
Akshat Singh	Frontend Developer	Develop user interface
Akshat Singh	Backend Developer	Design, Develop and Unit Test Services/API/DB
D.R.Deekshith	Cloud Architect	Design the cost effective, highly available and scalable architecture
D.R.Deekshith	Cloud Operations	Provision required Services
K.Mohan Charan	Tester	Define Test Cases and Perform Testing

### 3.2. Responsibility Assignment Matrix

RACI Matrix	Team Members			
Activity	Akshat Singh (BA)	K.Mohan Charan (Developer)	D.R.Deekshith (Project Manager)	(Business User)
Raise a change	A	R	I	C
Meeting protocols	R	I	I	A
Delivery road map	A	C	R	I
Develop project plan	R	A	I	C
Develop software	A	R	R	A

A	Accountable
R	Responsible
C	Consult
I	Inform

### Reference

1. <https://www.pmi.org/>
2. <https://www.projectmanagement.com/>
3. <https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/ti-it/ervcpgpm-dsfvpmpt-eng.html>

Result:

Thus, the Project Plan was documented successfully.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	5
Title of Experiment	Prepare Work breakdown structure, Timeline chart, Risk identification table
Name of the candidate	D.R.Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010009 RA2111032010021
Date of Experiment	21-02-2023

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	4
2	Viva	5	4
Total		10	8

P. Gouthene 7/3/23  
Staff Signature with date

## Aim

To Prepare Work breakdown structure, Timeline chart and Risk identification table

## Team Members:

Sl No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R. Deekshith	Member

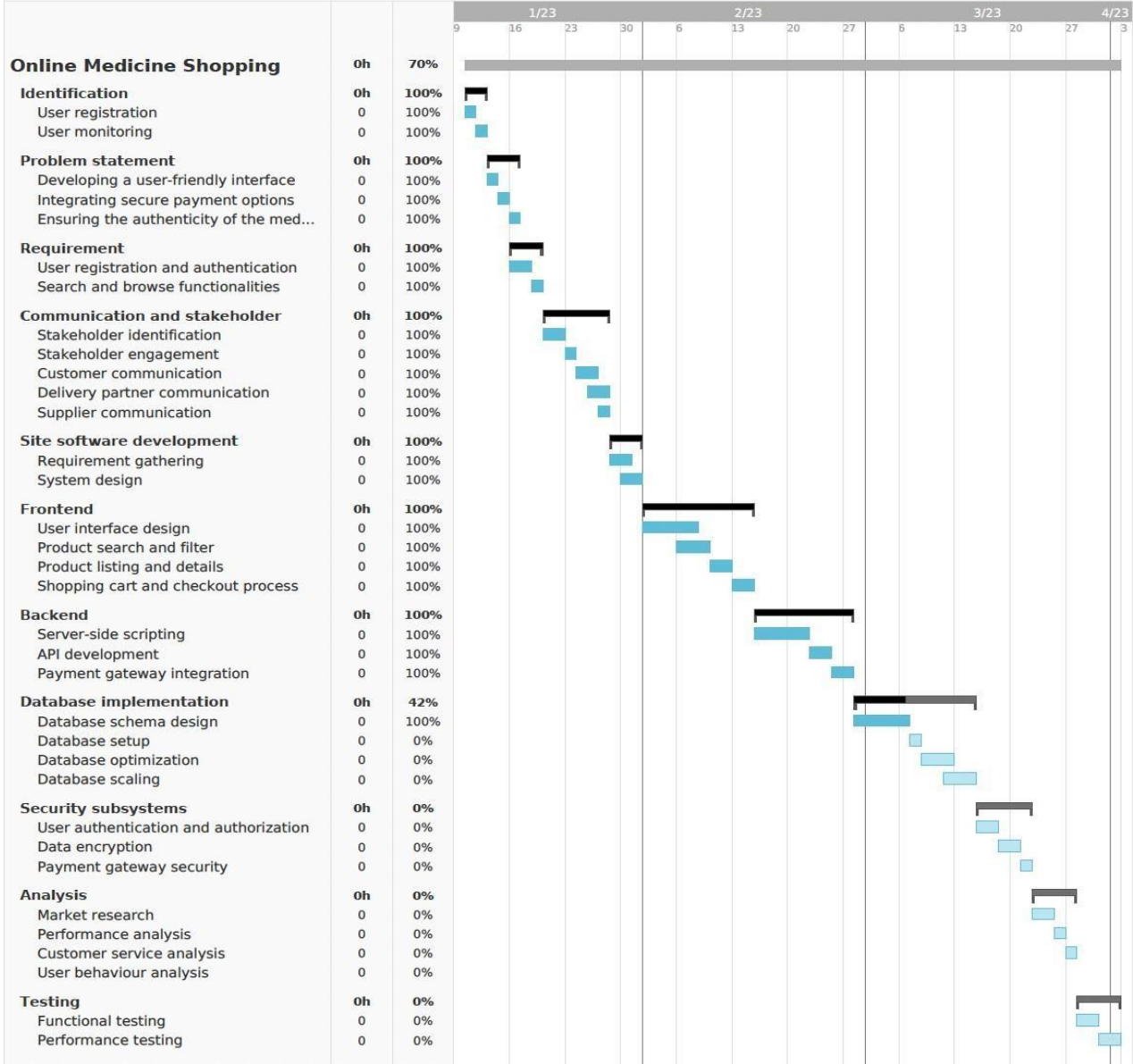
## Work Breakdown Structure:



## Online Medicine Shopping

1. Project Management
2. Requirements Gathering
3. Analysis & Design
4. Site Software Development
  - 4.1 HTML Design and Creation
  - 4.2 Backend Software
    - 4.2.1 Database Implementation
    - 4.2.2 Security Subsystems
    - 4.2.3 Transaction processing
  - 4.3 Graphics and Interface
- 5.0 Testing and deployment

TIMELINE-GANTT\CHART





## RISK ANALYSIS – SWOT & RMMM



## **RISK MANAGEMENT FRAMEWORK-RISKS AND MITIGATION**

<b>Response</b>	<b>Strategy</b>	<b>Examples</b>
Avoid	Risk avoidance is elimination of hazards and activities that can negatively affect an organisation .	-Reducing scope of project
Transfer	Involves transferring the potential losses of a particular risk to another party.	-Insurance -Outsourcing
Mitigate	Involves taking actions to reduce the probability or impact of potential risks.	-Diversification -Contingency planning
Accept	Involves acknowledging a potential risk and accepting the potential losses that may result.	-Business decision -Risk tolerance

### **Result:**

Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.



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SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	6
Title of Experiment	Design a System Architecture, Use Case and Class Diagram
Name of the candidate	D.R.Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	28-02-2023

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	3
Total		10	8

*P. Gnanthone* 7/3/2023  
Staff Signature with date

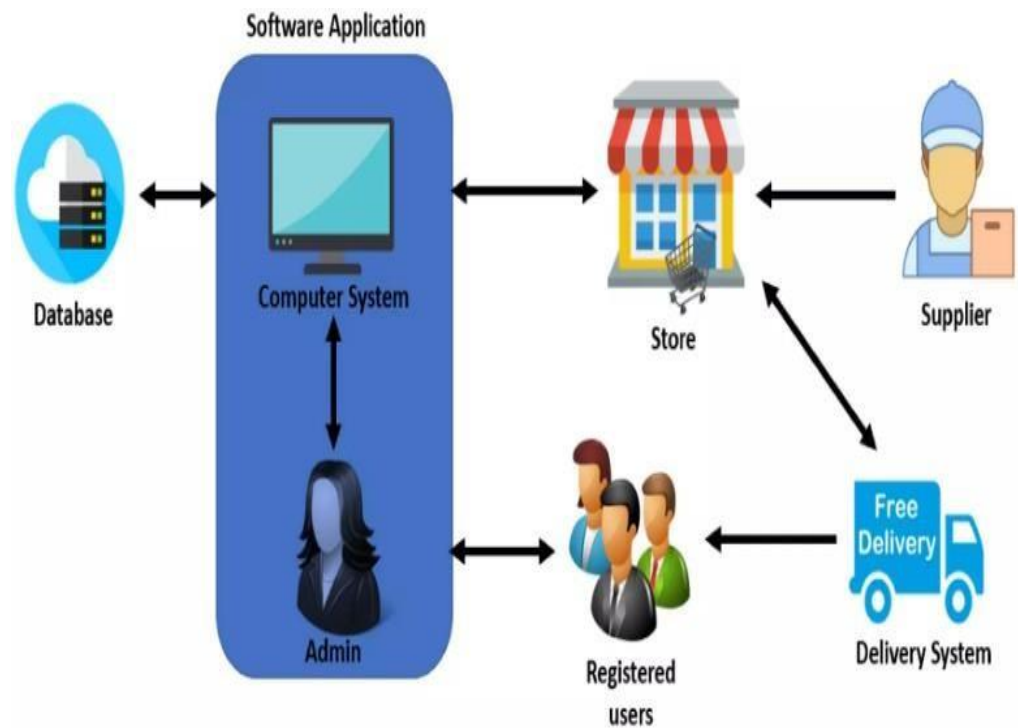
## Aim

To Design a System Architecture, Use case and Class Diagram

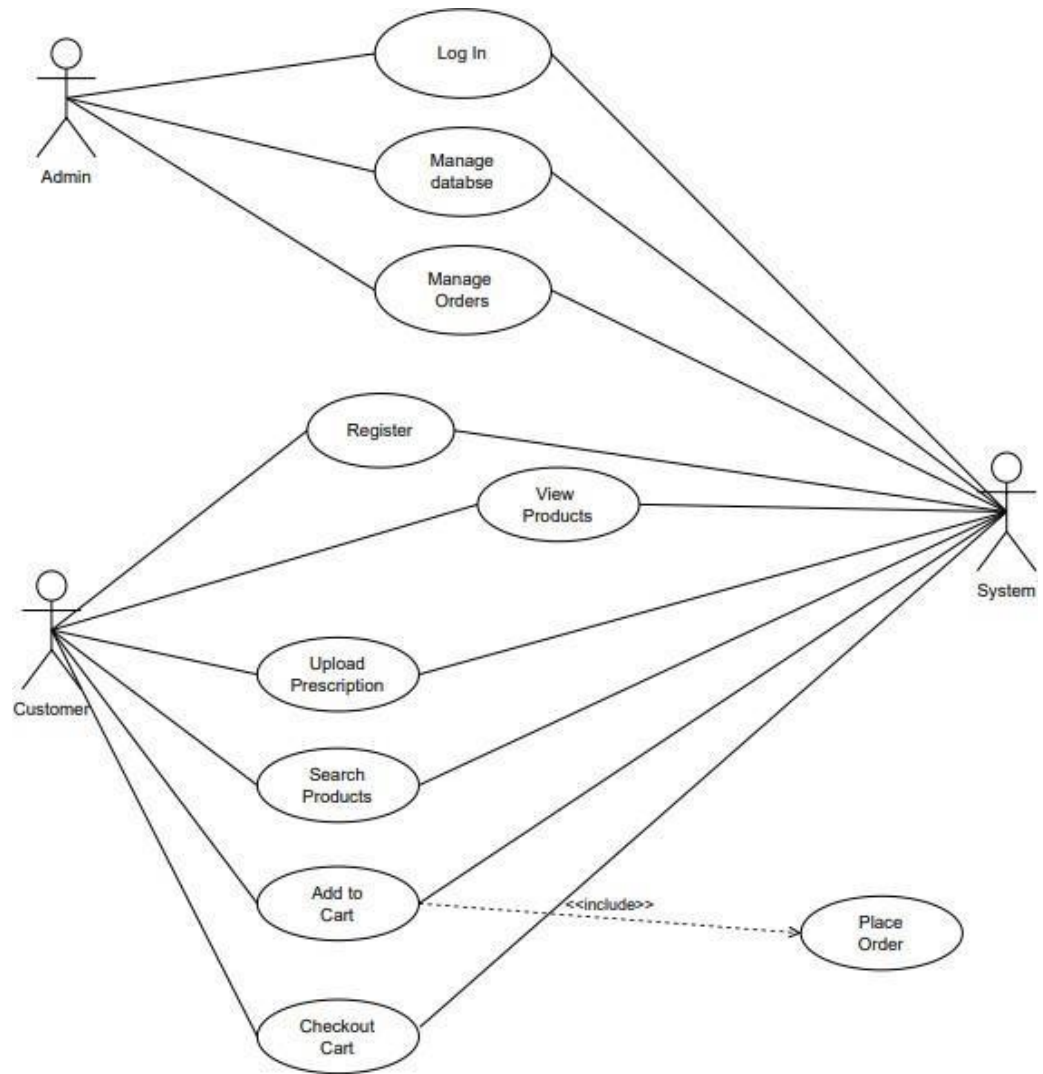
## Team Members:

Sl No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R.Deekshith	Member

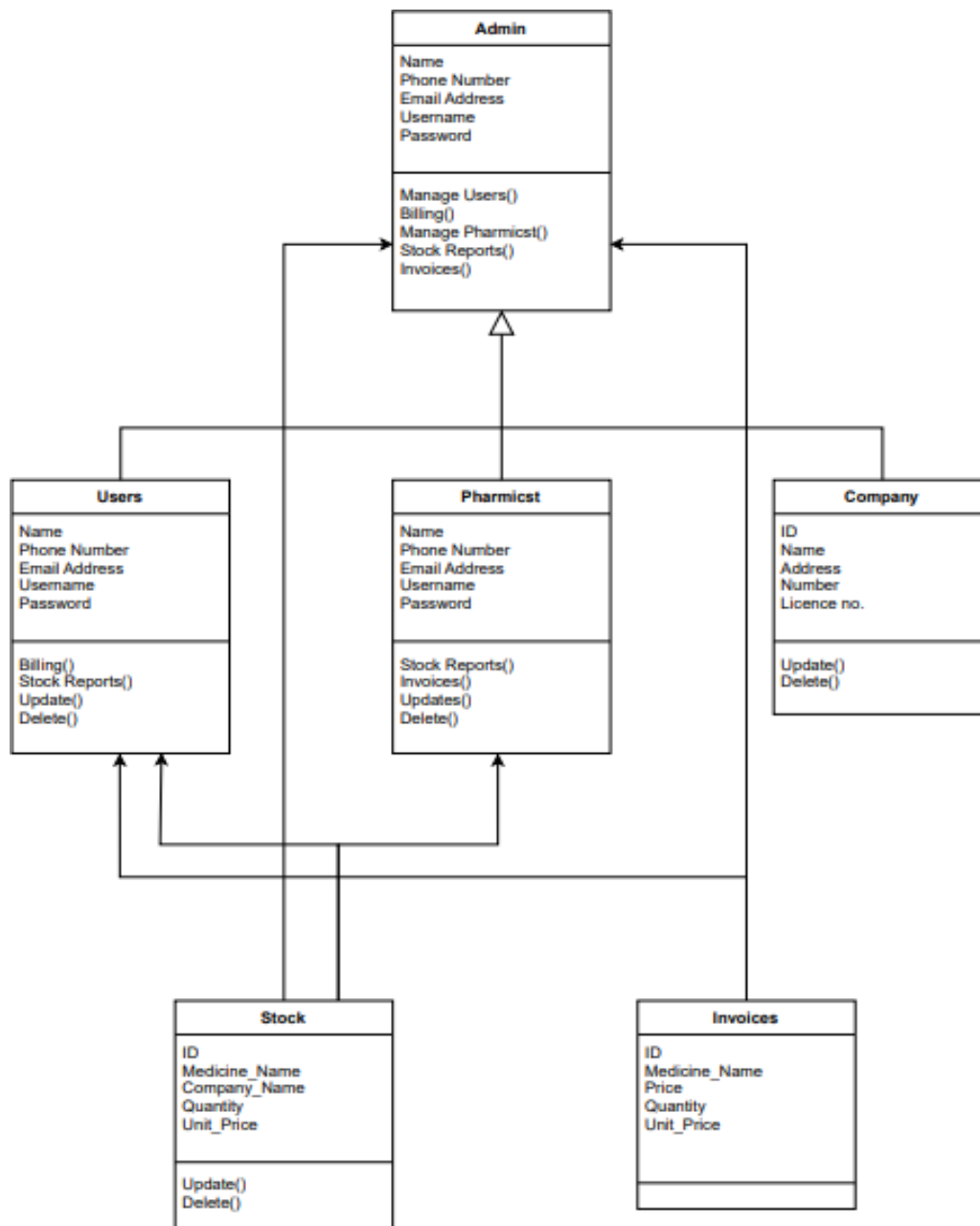
## SYSTEM ARCHITECTURE:-



## USE CASE DIAGRAM :-



## CLASS DIAGRAM :-



Result:

Thus, the system architecture, use case and class diagram created successfully.



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**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

Experiment No	7
Title of Experiment	Design a Entity relationship diagram
Name of the candidate	D. R. Deckshith
Team Members	K.Mohan Charan Akshay Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	13-03-2023

**Mark Split Up**

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	3
Total		10	8

  
Staff Signature with date

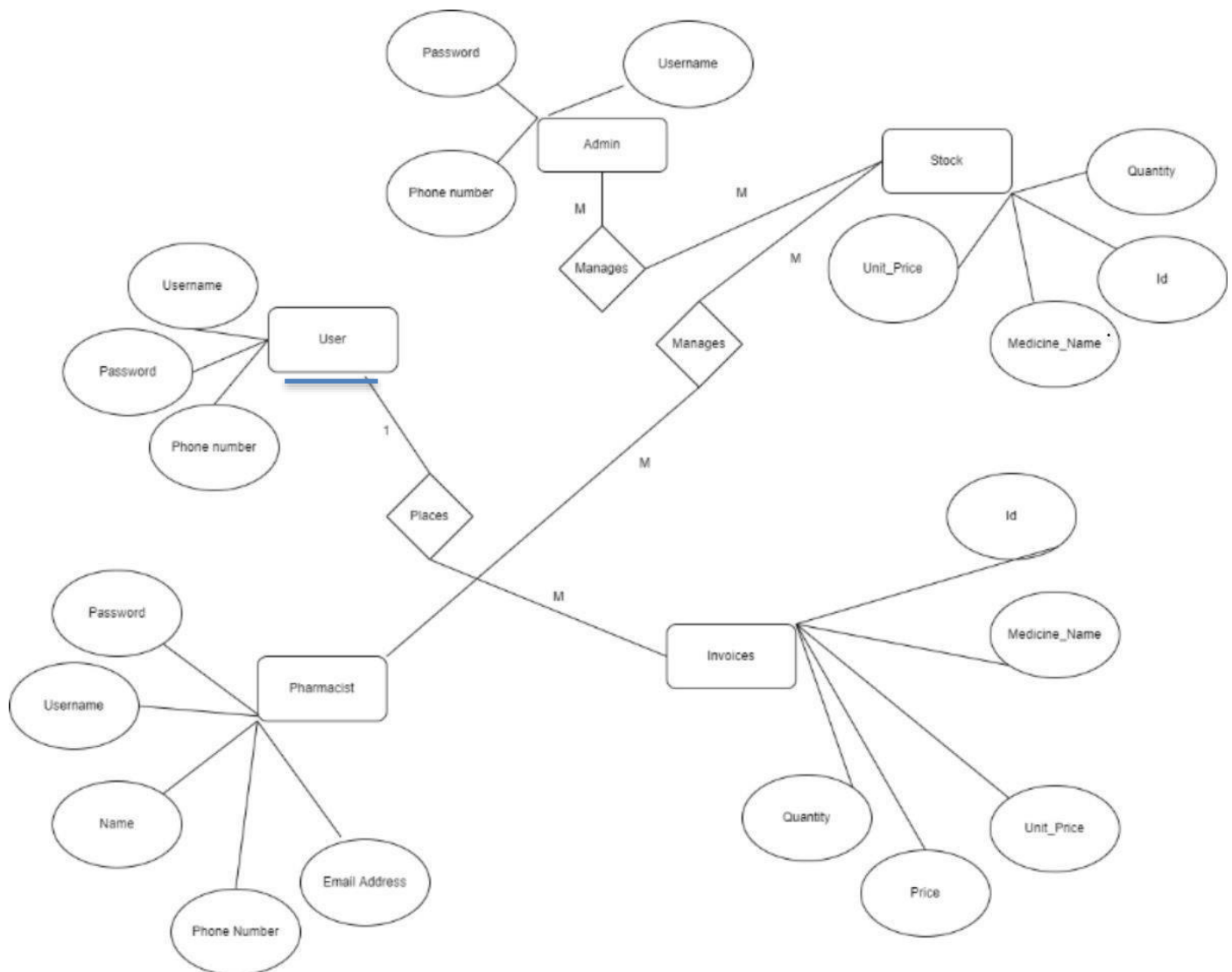
## Aim

To create the Entity Relationship Diagram

## Team Members:

S No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep
2	RA2111032010020	K.Mohan Charan	Member
3	RA211103201005	D.R. Deekshith	Member

## ER diagram





**Result:**

Thus, the entity relationship diagram was created successfully.



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Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	8
Title of Experiment	Develop a Data Flow Diagram (Process-Up to Level 1)
Name of the candidate	D. R. Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	15.03.2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	4
Total		10	9

  
Staff Signature with date 23/3/2023

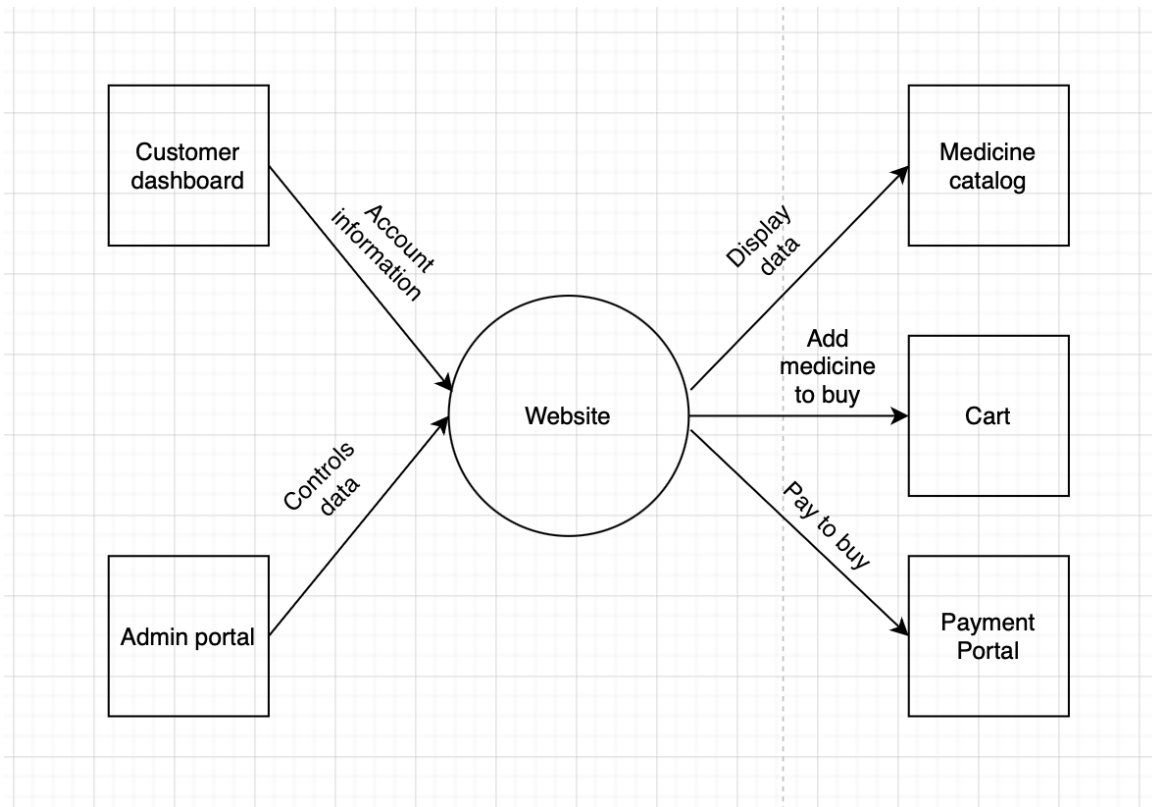
## Aim

To develop the data flow diagram up to level 1 for the Online medicine shopping.

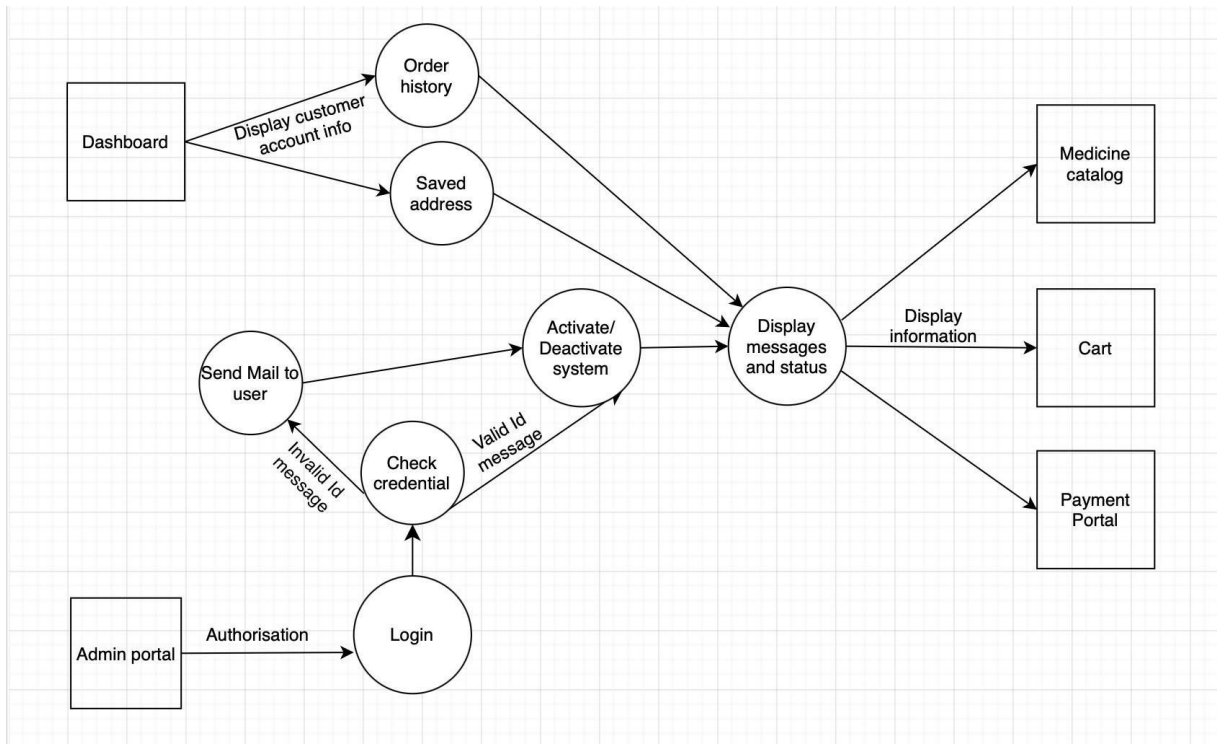
## Team Members:

S No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R. Deekshith	Member

## DFD Level 0



## DFD Level 1



Result:

Thus, the data flow diagrams have been created for the Online medicine shopping.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	9
Title of Experiment	Design a Sequence and Collaboration Diagram
Name of the candidate	D.R.Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	24-03-2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	4
2	Viva	5	4
Total		10	8

  
Staff Signature with date 30/3/2023

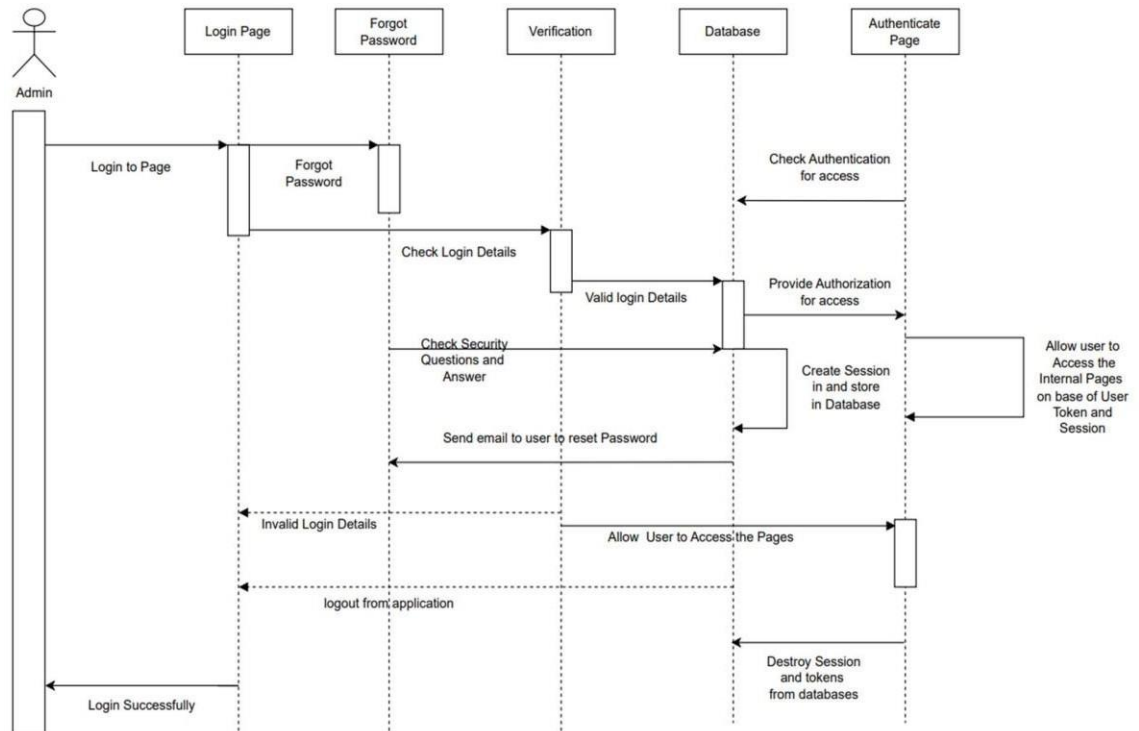
## Aim

To create the sequence and collaboration diagram for the <project name>

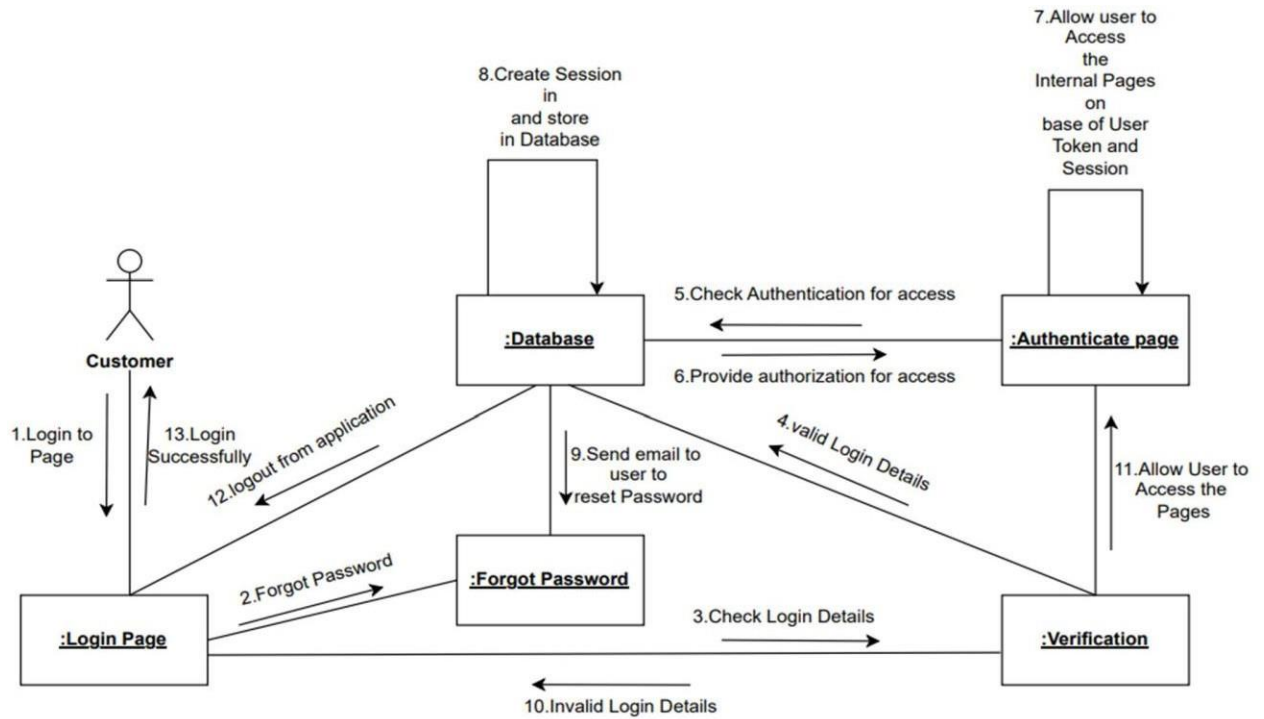
## Team Members:

S No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep/Member
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R.Deekshith	Member

## Sequence Diagram:



## Collaboration Diagram:



Result:

Thus, the sequence and collaboration diagrams were created for the Online Medicine Shopping.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	10
Title of Experiment	Develop a Testing Framework/User Interface
Name of the candidate	D. R. Deekshith
Team Members	K.Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	30/03/2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	5
Total		10	10

  
Staff Signature with date



**Aim:**

To develop the testing framework and/or user interface framework for Online medicine shopping.

**Team Members:**

S No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep/Member
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R.Deekshith	Member

## Executive Summary

This testing framework aims to ensure the reliability, functionality, and security of an online medicine shopping platform. The testing process will include functional, usability, compatibility, performance, and security testing to ensure that the platform meets the specified requirements and provides a seamless user experience for customers

## Test Plan

**Introduction:** Ensure quality and reliability of the online medicine shopping platform.

**Objectives:** Verify features, usability, compatibility, performance, and security.

**Phases:**

**Planning:** Define objectives, scope, approach, and timelines.

**Design:** Create test cases, scripts, and data.

**Execution:** Execute test cases and report issues.

**Closure:** Review results and finalise test report.

## Scope of Testing

**Functional:** Verify that the website's functionalities meet specified requirements, including testing features such as user registration, order placement, payment processing, and product catalog management.

**Non-Functional:** Test website usability, compatibility, performance, security, and accessibility, ensuring compliance with relevant web standards.

## Types of Testing, Methodology, Tools

Category	Methodology	Tools Required
Functional Requirements	Blackbox testing, White box testing	Selenium, JUnit , TestNG
Regression testing	Manual testing, automated testing	Selenium, JUnit, TestNG
Performance testing	Load testing, stress testing, endurance testing	Apache JMeter, LoadRunner
Non functional Requirements	Performance testing, Security testing, Usability testing, Compatibility testing, Reliability testing	Apache JMeter, BrowserStack
Security testing	Vulnerable testing, penetration testing	OWASP ZAP, Burp suite
Usability testing	User testing, heuristic evaluation	Usertesting.com, usability hub
Compatibility testing	Browser testing, device testing	Browser stack, Saucelabs
Accessibility testing	Disability testing, Assistive technology testing	WAVE, NVDA

### Result:

Thus, the testing framework/user interface framework has been created for Online medicine shopping.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	11
Title of Experiment	Test Cases & Reporting
Name of the candidate	D. R. Deekshith
Team Members	K.Mohan Charan K. Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	16-04-2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	4
Total		10	9

*P. G. Srinivasan*  
Staff Signature with date 16/04/2023

**Aim**

To develop the test cases manual with manual test case report for the Online medicine shopping.

**Team Members:**

<b>S No</b>	<b>Register No</b>	<b>Name</b>	<b>Role</b>
<b>1</b>	RA2111032010021	Akshat Singh	<b>Rep</b>
<b>2</b>	RA2111032010020	K.Mohan Charan	<b>Member</b>
<b>3</b>	RA2111032010005	D.R.Deekshith	<b>Member</b>

# Test Case

## Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Navigate to registration page	Registration with valid credentials	1. Enter valid credentials for all mandatory fields 2. Click Submit	User is redirected to login page with success message	Pass	Passed	N/A
2	Navigate to registration page	Login with valid credentials	1. Enter valid username and password 2. Click Login	User is redirected to the home page with success message	Pass	Passed	N/A
3	Navigate to registration page	Search for medicine using valid search item	1. Enter valid search term in the search bar 2. Click search	Search results are displayed matching the	Pass	Passed	N/A
4	Navigate to registration page	Add medicine to cart with valid quantity	1. Enter valid quantity for the medicine. 2. Click Add to	Medicine is added to cart with selected	Pass	Passed	N/A
5	Navigate to registration page	Remove medicine from cart	1. Click Remove button for the	Medicine is removed	Pass	Passed	N/A
6	Navigate to registration page	Checkout with valid info	1. Enter valid shipping and payment information. 2. Click Checkout.	Order is placed successfully and confirmation message is shown	Pass	Passed	N/A

# Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Homepage Load Time	Performance Page Load Time	Navigate to Home page and record load time	Home page should load within 3seconds	Pass	Passed	N/A
2	Search Response Time	Performance Search Response Time	Enter a valid search term and record response time	Search results should display within 5 seconds	Pass	Passed	N/A
3	Navigation and Layout Usability	Usability Navigation and Layout	Navigate through application and the test ease of use and intuitive layout	Navigation should be intuitive and layout should be visually pleasing	Pass	Passed	N/A
4	Login Credential Security	Security Login Credentials	Attempt to login with invalid credentials and verify appropriate error message is displayed	Error message should be displayed for invalid login credentials	Pass	Passed	N/A
5	Browser compatibility	Compatibility: Browser Compatibility	Test application functionality on different browsers and record any issues or inconsistencies	Application should function properly on all tested browsers	Pass	Passed	N/A

Category	Progress Against Plan	Status
Functional Testing	Amber	In progress
Non-Functional Testing	Green	Completed
User Interface	Green	Completed
Backend functionality	Red	Not-started
Inventory management	Green	Completed
Order fulfilment	Amber	In progress
Security	Green	Completed
Manual testing	Red	Non-started (inventory mgmt)

Functional	Test Case Coverage (%)	Status
User registration	95%	Completed
Product search	90%	In progress
Product details	100%	Completed
Add to cart	95%	Completed
Payment process	85%	In progress
Order history	100%	Completed
Shipping	80%	In progress

User registration: testing is completed.

Product search: testing is in progress, but only 90% of test cases have been written.

Product details: testing is completed. Add to cart: testing is completed.

Payment process: testing is in progress, and only 85% of test cases have been written.

Order history: testing is completed.

Order cancellation: testing is completed.

Shipping: testing is in progress, but only 80% of test cases have been written.

The main obstacles to proceeding further with testing are the incomplete test cases for some modules.

Additionally, for the payment and shipping modules, it is not clear what specific issues or challenges are causing the testing to be in progress.

To remove these obstacles, we will take help from stakeholders, such as the project manager, developers, or subject matter experts. They may be able to provide additional resources, guidance, or insights to help complete the remaining test cases and address any issues or challenges in the payment and shipping modules.

## Result:

Thus, the test case manual and report has been created for the Online Medicine Shopping.



School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	12
Title of Experiment	Provide the details of Architecture Design/Framework/Implementation
Name of the candidate	D. R. Deekshith
Team Members	K. Mohan Charan Akshat Singh
Register Number	RA2111032010005 RA2111032010020 RA2111032010021
Date of Experiment	22-04-2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	3
Total		10	8

P. Arunthine 24/4/2023  
Staff Signature with date



## Aim

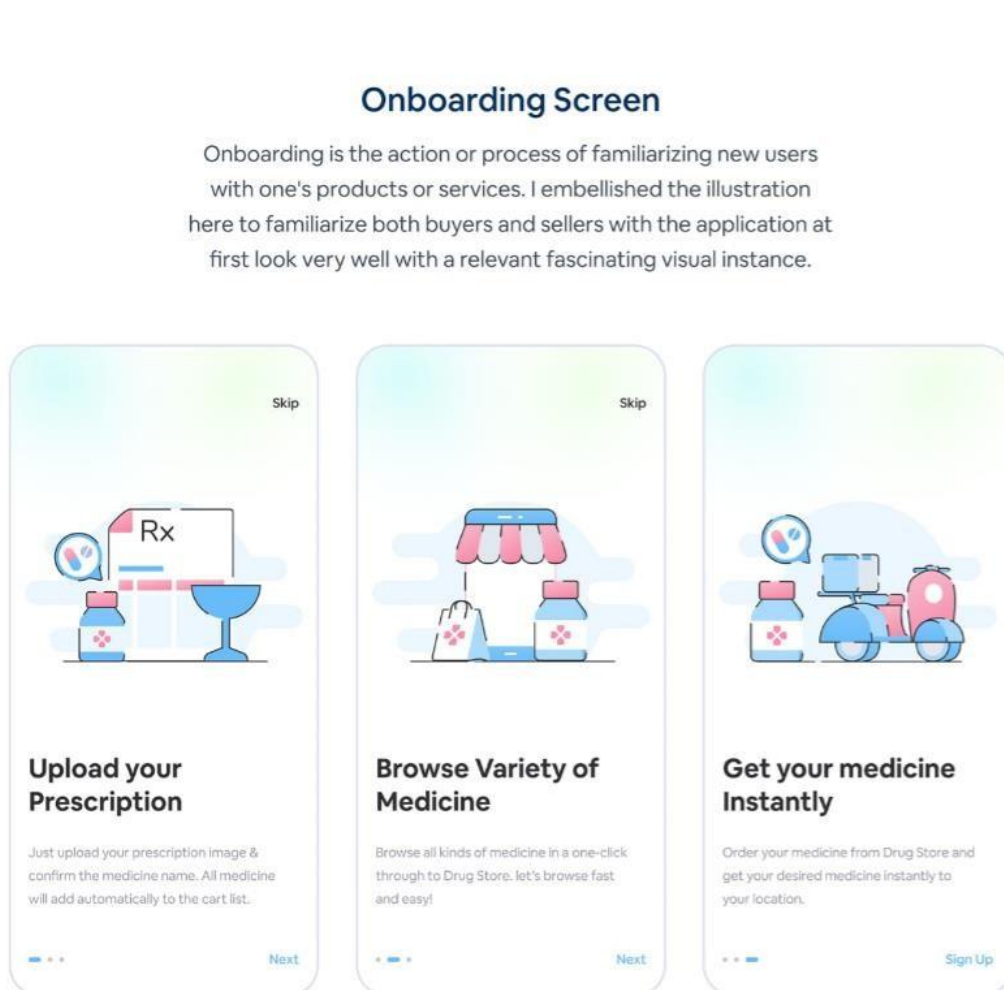
To provide the details of architectural design/framework/implementation

## Team Members:

S No	Register No	Name	Role
1	RA2111032010021	Akshat Singh	Rep/Member
2	RA2111032010020	K.Mohan Charan	Member
3	RA2111032010005	D.R.Deekshith	Member

## Architectural Design :-

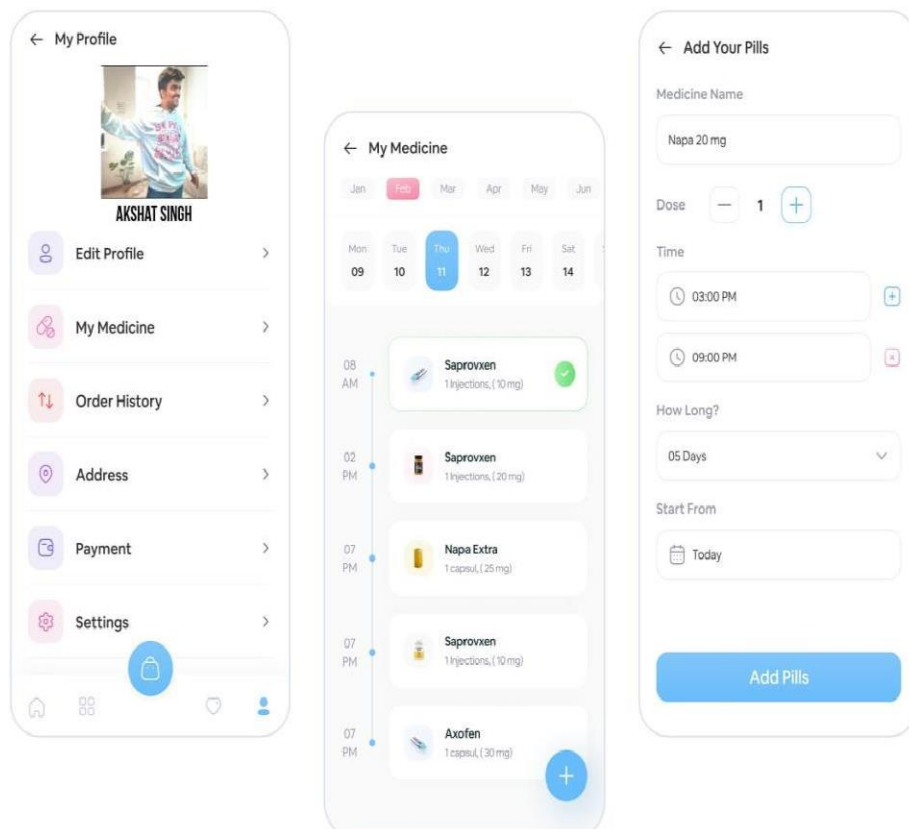
### Onboarding Screen Design :-



## Profile page Design:-

### Profile & My Medicine

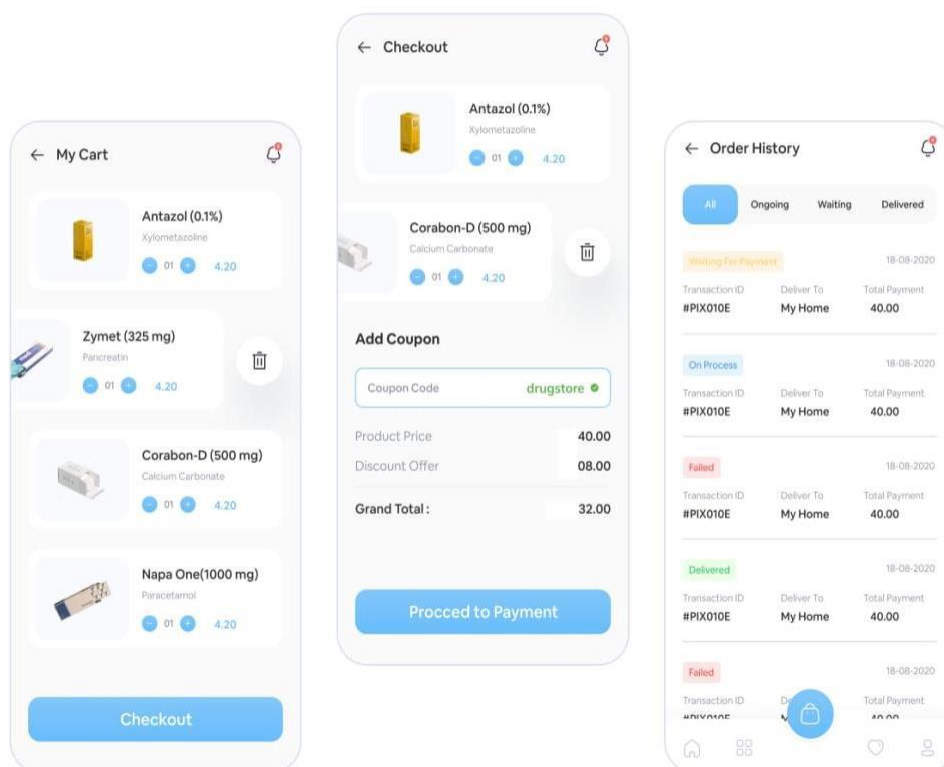
It's difficult to remember to take the medicine on time every day. However, this application will remind you of the time of taking the medicine. This will show the schedule and amount of your medication.



## Cart and Order Page Design:-

### Cart & Order

You can easily check your cart list, you can manage the quantity, get coupon and get informed about order processing and history.



Result:

Thus, the details of architectural design/framework/implementation along with the screenshots were provided.

## **CONCLUSION**

There is a clear association of online buying of medicines and medical products with pharmaceuticals companies. This study help seller and buyer in identifying the advantages and disadvantages of online buying/selling of medicines and medical products and this paper also promote digital India concept as buyers will buy more on internet because they are getting discounts and it also saves time. From this study, after reading disadvantages the seller of medicines and medical products will also get an opportunity to make proper changes so that they will be able to get more sell.

## REFERENCES

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- [5] Mamoun N. Akroush Mutaz M. Al-Debei , (2015), "An integrated model of factors affecting consumer attitudes towards online medicine shopping", *Business Process Management Journal*, Vol. 21 Iss 6 pp. 1353 – 1376.
- [6] Grace T.R. Lin Chia-Chi Sun, (2009), "Factors influencing satisfaction and loyalty in online medicine shopping: an integrated model", *Online Information Review*, Vol. 33 Iss 3 pp. 458 – 475.