MOBILE SHOP MANAGEMENT SYSTEM

BS Software Engineering

Department of Software Engineering

Capital University of Science and Technology, Islamabad

MOBILE SHOP MANAGEMENT SYSTEM

Mohsin Abbas   **(bse181068)**

Abdul Wahab   **(bse191051)**

Dansih Ali   **(bse193053)**

Supervised By Dr.Aamer Nadeem

Supervisor Name : Sir Naseer Jan

Spring 2023

SOFTWARE ENGINEERING

Department of Software Engineering

Capital University of Science & Technology, Islamabad

Project Report

VERSION	1.0		**NUMBER OF MEMBERS**	03

TITLE	Mobile Shop Management System

SUPERVISOR NAME	NASEER JAN

MEMBER NAME	**REG. NO.**	**EMAIL ADDRESS**
M.Mohsin Abbas	Bse-181068	mmohsinabbas.923@gmail.com
Abdul Wahab	Bse-191051	abdulwahab01567@gmail.com
Danish Ali	Bse-193053	danishnadeem474@gmail.com

MEMBERS' SIGNATURES

Supervisor's Signature

Note 1: This paper must be signed by your supervisor
Note 2: The soft-copies of your project report, source codes, schematics, and executable should be delivered in a CD

Approval Certificate

This project, entitled as "Menu Drive (Insert Your Project Title Here) " has been approved for the award of

Bachelors of Science in Software Engineering

Committee Signatures:

Supervisor: _____

(Supervisor Name Dr / Mr / Ms)

Project Coordinator: _____

(Mr. Ibrar Arshad)

Head of Department: _____

(Dr. Nadeem Anjum)

Declaration

I/We, hereby, declare that "No portion of the work referred to, in this project has been submitted in support of an application for another degree or qualification of this or any other university/institute or other institution of learning". It is further declared thatthis undergraduate project, neither as a whole nor as a part thereof has been copied out from any sources, wherever references have been provided.

MEMBERS' SIGNATURES

_____

_____

_____

Acknowledgements

It is usual to thank those individuals who have provided particularly useful assistance, technical or otherwise, during your project. Your supervisor will obviously be pleased to be acknowledged as he or she will have invested quite a lot of time overseeing your progress.

Dedication

This is an optional section

In this section you dedicate your project to anybody that you feel motivates you for hard work and putting effort for successful life.

Executive Summary

This should be not more than one page in length (200 words approx.). The summary should allow the reader who is unfamiliar with the work to gain a swift and accurate impression of what the project is about, how it arose and what has been achieved.

It is recommended, you write this section when the report is finished.

Table of Contents

This should give a complete list of what the report contains starting with the abstract (the title page is not included in the contents list).

List of Figures

If the report contains figures or tables a list of these should be provided.

LIST OF TABLES

Chapter 1

1. Introduction

According to current situation as all business are becoming online and easy to access remotely it's should be must for a, Mobile shop-keepers to get an comprehensive mobile shop management system that includes features such as a ledger, commission calculation,daily closing's,ordering stock etc. and profit and loss calculations.

Our system enables efficient record-keeping and financial management, allowing them to monitor their business transactions accurately. The ledger function helps to track sales, purchases, and expenses, ensuring transparency and accountability.

Commission tracking allows the shop-keepers to monitor and calculate the commissions earned by their sales accurately. Additionally, profit and loss calculations enable them to assess their business's performance, identify areas for improvement, and make informed decisions. By integrating these features, a mobile shop management system ensures seamless operations, effective communication with clients, and improved business performance.

1.1. Project Introduction

Our FYP aims to address the challenges faced by approximately 20,000 mobile shops in Pakistan. These shops often deal with EasyPaisa, JazzCash, and Recharge Services, effectively functioning as mini banks and facilitating numerous daily payments. However, a significant issue arises as many retailers collect commissions for these services without a proper mechanism for calculating or recording them. Consequently, retailers are unable to determine their earnings from these platforms and load services. Furthermore, the reliance on paper-based methods for maintaining sales, commissions, and daily closings is time-consuming and inefficient. Our objective is to develop a user-friendly application that enables mobile shopkeepers to securely access and manage their records, including daily payments and commissions, even when they are not physically present at the shop.

1.2.   Existing Examples / Solutions

2.1 ASAAN POS:

Asaan POS system is a user-friendly billing software designed specifically for mobile, accessories, and electronics businesses in Pakistan. This software provides a comprehensive solution for managing various aspects of the business, including sales, inventory, expenses, and purchases. With Asaan POS, shopkeepers can efficiently handle their day-to-day operations, streamline their sales processes, and keep track of their stock levels. The software offers a range of features tailored to meet the specific needs of electronics businesses, ensuring smooth and hassle-free management. Whether it's generating invoices, monitoring inventory, or tracking expenses, Asaan POS provides all the necessary tools to effectively run and grow an electronics business in Pakistan.

2.2 INVENTORY PLUS SOFTWARE:

Inventory-Plus offers a comprehensive solution for managing mobile store businesses. This cost-effective software efficiently handles stock management, simplifies billing processes, maintains accurate accounting ledgers, and stores supplier and customer details. However, there are several drawbacks associated with other systems:

- They fail to maintain a proper daily closing sheet.
- They do not facilitate Commission services.
- They lack the ability to maintain accurate billing details.
- They do not provide insights on the most selling items.

1.3. Business Scope

Mobile shop management systems offer a wide-ranging business scope, catering to the increasing need for streamlined operations in the mobile retail industry. These systems provide numerous benefits to mobile shop retailers or keepers, both in the present and future. Currently, they enable efficient management of inventory, sales, billing, and customer information, resulting in time and effort savings, reduced errors, and improved operational efficiency. In the future, these systems offer flexibility, and remote accessibility, allowing retailers to adapt to market changes, expand product offerings, and monitor their businesses remotely. Additionally, integration with digital payment platforms enables convenient transactions and facilitates participation in the digital economy. Overall, mobile shop management systems empower retailers to optimize their businesses, enhance customer experiences, and embrace digital transformation in the mobile retail industry.

Mobile shop management systems have a promising business scope in Pakistan. With a large number of mobile shops in the country, these systems provide efficient inventory management, streamlined sales processes, accurate billing, and customer information management. They offer increased operational efficiency, reduced errors, and improved profitability for retailers. Furthermore, with the integration of digital payment platforms, they cater to the growing digital economy and provide convenient payment options for customers. As the industry evolves, mobile shop management systems will continue to play a crucial role in enhancing business processes and driving success in the mobile retail sector.

1.4. Useful Tools and Technologies

Technologies

Following technology stack will used for the development of the proposed project:

For Front-End Development:

As per requirement, front-end or client side stack will be combination of some of these technologies:

- HTML5.
- CSS.
- JavaScript or Meteor framework of JS React.
- C#.

Back-End Development:

According to the requirements, Back-end or server side will be the combination of some of these technologies/expertise:

- Node.js
- Java.

Database:

One of the following open source databases will be used to manage data of proposed project's site:

- MySQL.
- XXAMP

Cloud:

- Amazon Web Services.
- Microsoft Azure.

1.5. Project Work Break Down

Mobile Shop Management System offers the comprehensive features for mobile stock management, sales tracking, billing, and customer details, catering to the specific needs of mobile shop retailers or keepers in Pakistan.

Integration with digital payment platforms like EasyPaisa and JazzCash provides convenient payment options and facilitates participation in the digital economy. The system enables retailers to view detailed reports on sales, commissions, and profit/loss, facilitating data-driven decision-making. With a user-friendly interface and functionalities such as stock checking, loan summaries, and mobile details, the system enhances operational efficiency and improves the overall shopping experience.
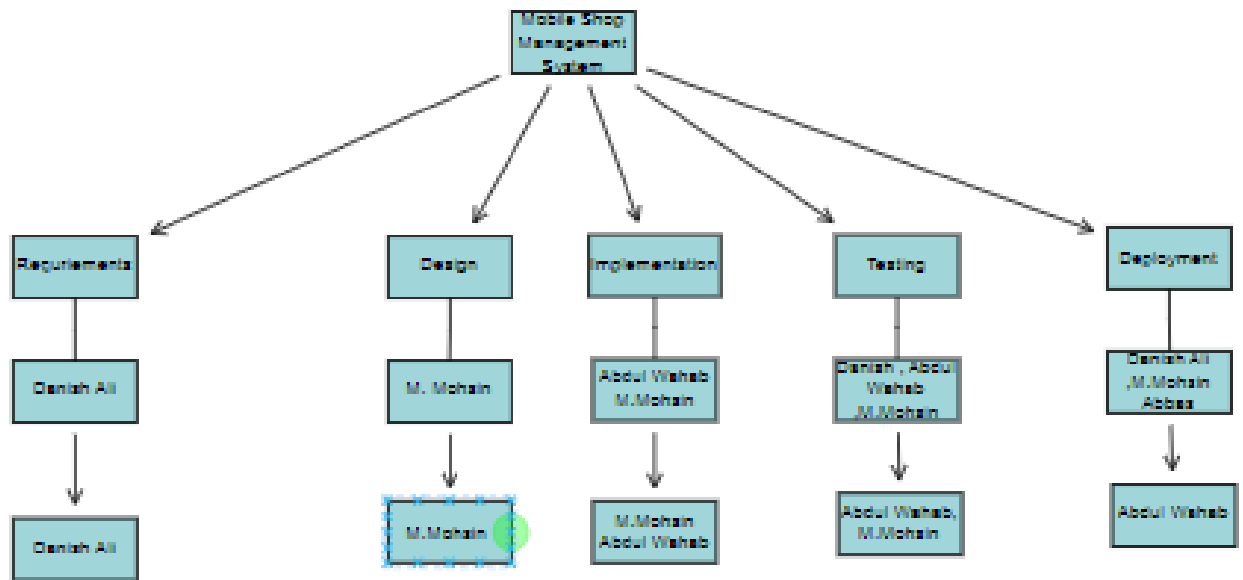
Figure 1-1 Work breakdown structure

1.6.   Project Time Line

Creating a Gantt chart for this project is essential for effective project planning and management. A Gantt chart visually represents the project timeline, tasks, and dependencies, allowing for better scheduling and resource allocation. It helps in organizing and tracking project activities, ensuring that tasks are completed in a logical sequence and within defined timeframes. By utilizing a Gantt chart, project managers can identify critical paths, allocate resources efficiently, and monitor progress. It also helps in identifying potential bottlenecks and allows for

adjustments to be made to the project schedule as needed. Ultimately, a Gantt chart facilitates better coordination, communication, and overall project success by providing a clear and visual roadmap for all stakeholders involved in the mobile shop management system project.

Gantt chart is shown in Figure 1-2.

Figure 1-2 Gantt Chart

Chapter 2

2. Requirement Specification and Analysis

Mobile shop management system in Pakistan involves a comprehensive understanding of the specific needs and challenges faced by mobile shop retailers or keepers in the country. It entails identifying and documenting the key functionalities and features required to effectively manage inventory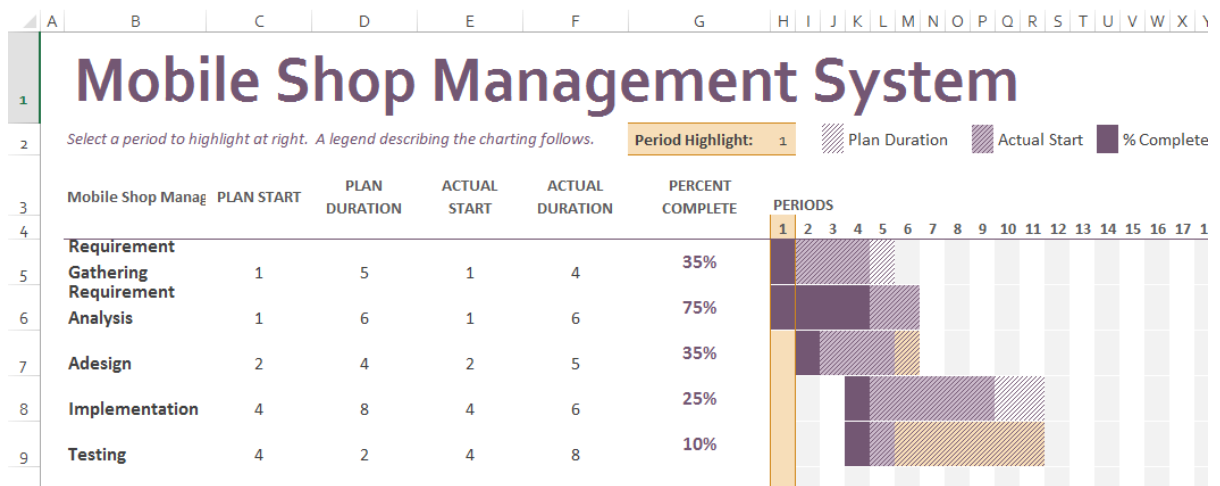, sales, billing, and customer information. This analysis takes into account the unique aspects of the Pakistani mobile retail industry, such as the reliance on digital payment platforms like EasyPaisa and JazzCash. Additionally, it considers the need for user-friendly interfaces, seamless integration with existing systems, scalability, and adaptability to accommodate future industry trends. By conducting a thorough requirement specification and analysis, the mobile shop management system can be tailored to cater to the specific needs and optimize operations for mobile shop retailers or keepers In Pakistan, ultimately driving efficiency and success in their businesses.

2.1.   Functional Requirements

The Functional Requirements Specification documents the operations and activities that a system must be able to perform.Functional requirements for the Mobile Shop Management System includes the following:

The system should allow shop retailers to register and login, providing secure access to their accounts. Once logged in, retailers should be able to view their shop details, access the menu, check mobile stock, and view their ordered stock. The system should also provide the functionality to view loan summaries, sales information, top-up

services, and customer details for loans. Retailers should have the capability to insert time and dates for loans, as well as edit or delete their profiles. Additionally, the system should enable retailers to view mobile details, daily commissions, sales, and profit/loss reports. Lastly, the system should allow retailers to logout when necessary.

Sr. No.	Functional Requirement	Type
1	Shop Retailer Register's himself to Login into the system	Core
2	Shop Retailer Login to the System.	Core
3	Shop Retailer Views Shop Details.	Core
4	Shop Retailer Views the Menu.	Core
5	Shop Retailer checks the Mobile's stock.	Core
6	Shop Retailer View's his Ordered Stock.	Core
7	Shop Retailer View's the Loan Summaries.	Intermediate
8	Shop Retailer check's Sales.	Core
9	Shop Retailer check's the top-up and service's	Core
10	Shop Retailer inserts the time and dates for Loan's.	Core
11	Shop Retailer can view customer details for loans.	Core
12	Shop Retailer can edit, delete his Profile from the Profile in Menu Option.	Intermediate
13	Shop retailer can views the Mobile Details.	Intermediate
14	Shop Retailer can views the daily commissions, sales, profit\loss.	Core
15	Shop Retailer Logout from the system.	Core
16	Shop Retailer can view the Top-up Services	Core

2.2. Non-Functional Requirements

Non-functional requirements are necessary for the mobile shop management system as they define the qualities and characteristics of the system beyond its core functionality. These requirements ensure that the system meets specific performance, availability, security, and usability standards. NFR's contribute's to the overall user experience, system reliability, and data integrity.

By addressing non-functional requirements, the system can provide a stable and efficient platform for shop retailers or keepers to manage their mobile shops effectively and securely.

Sr. No.	Non Functional Requirements	Category
1	The system should be available to user 24/7.	Reliability
2	System should allow the verified user to login to the system.	Security
3	System can save the data for backup.	Learn-ability

2.3. System Use Case Modeling

Creating use cases for the Mobile Shop Management System is crucial to understand and define the interactions between the system and its users. Use cases help in identifying the different scenarios and user goals, ensuring that the system meets the specific needs of shop retailers or keepers.

They provide us a clear and detailed overview of how users will interact with the system, guiding the design, development, and testing processes. Use cases facilitate's effective communication, requirement gathering, and validation of the system-functionality.
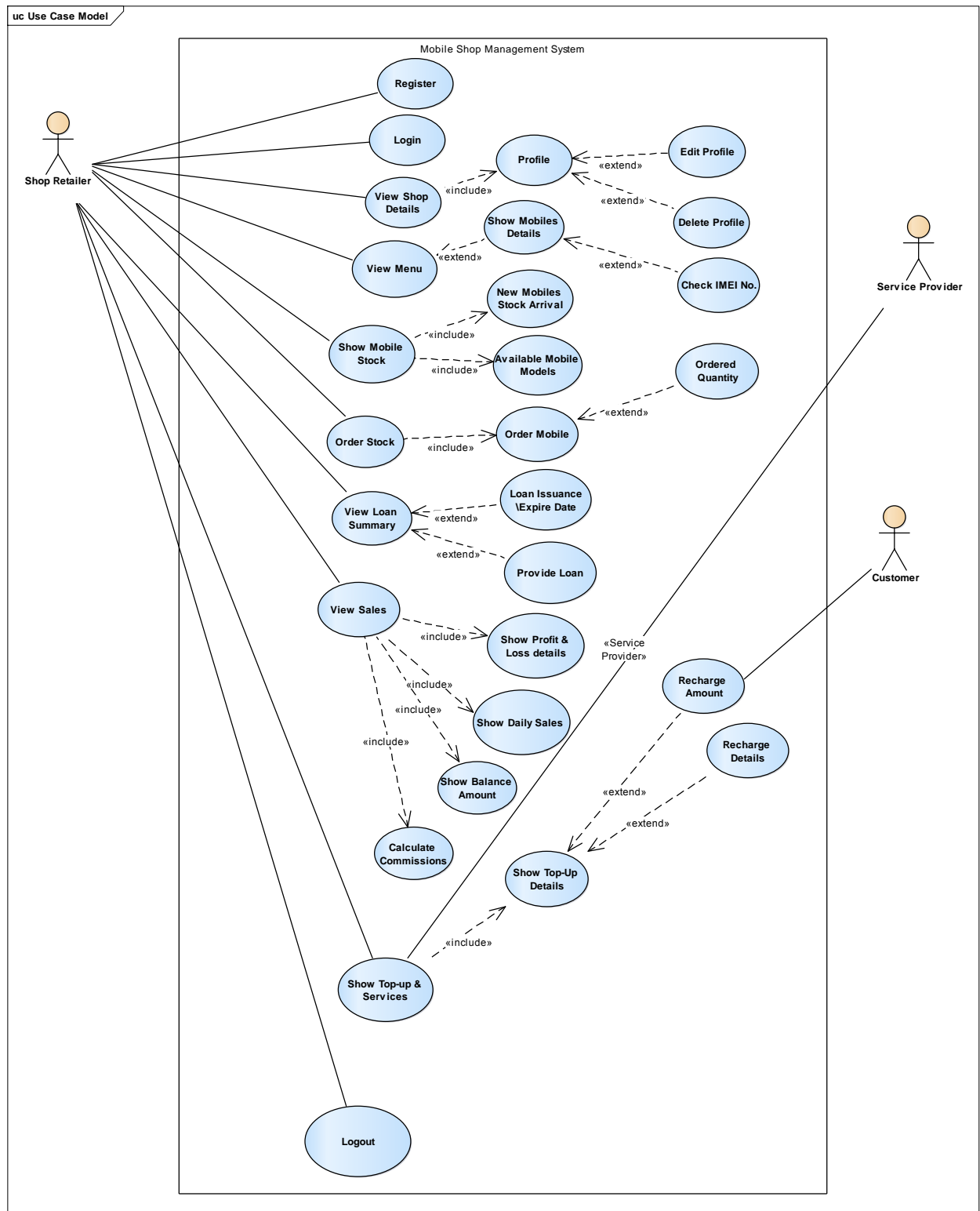
Figure 2-1 Use-case Diagram

2.3.1.   Use Case Descriptions:

Register:

Use Case ID:	Uc1		
Use Case Name:	Register		
Created By:	M.Mohsin	**Last Updated By:**	Danish Ali
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can get Register by the first time he used the system by providing the username, address, email and credentials.		
Trigger:	Register Button.		
Preconditions:	Shop Retailer provides the username, password, email, address and mobile number and clicks the Register button.		
Post conditions:	Shop Retailer will be logged in to the system.		
Normal Flow:	Actor		System
	1: Shop Retailer clicks the Register button to request for login.		The System provides the login page\form.
	2: Shop Retailer fills the login form by providing his credentials.		System Login's the user.
Alternative Flows:	Shop Retailer Cancel's the current form.		
Exceptions:	Shop Retailer has not filled the form correctly if he enters the required data In the wrong format.		

Login:

Use Case ID:	Uc2		
Use Case Name:	Login		
Created By:	M.Mohsin	**Last Updated By:**	Abdul Wahab
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can Login to the system after registering himself, and providing the username and password.		
Trigger:	Login Button.		
Preconditions:	Shop Retailer provides the username, password and clicks the Login button.		
Post conditions:	Shop Retailer will be signed in to the system.		
Normal Flow:		Actor	System
		1: Shop Retailer clicks Login button to login to the system.	The System provides the login form.
		2: Shop Retailer fills the login form by providing his credentials.	System Login the user.
Alternative Flows:	Shop Retailer Cancel's the current form and reload the page.		
Exceptions:	Shop Retailer has not filled the form correctly if he enters the wrong name and password.		

Shop Details:

Use Case ID:	Uc3		
Use Case Name:	Shop Details		
Created By:	M.Mohsin	**Last Updated By:**	Abdul Wahab
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can view the Shop Details and can view the profile.		
Trigger:	View Shop Details Button.		
Preconditions:	Shop Retailer must Login to the system.		
Post conditions:	Shop Retailer will be able to edit and delete profile.		
Normal Flow:		Actor	System
	1: Shop Retailer clicks the button then view the Profile. 2: Shop Retailer can edit and delete the profiles.		The System Displays the Profile. System shows the profile.
Alternative Flows:	Shop Retailer refresh the current form.		
Exceptions:	Shop Retailer has not properly edited the form correctly and provides the wrong data, if he doesn't save the edited profile.		

Shop Retailer:

Use Case ID:	Uc4		
Use Case Name:	View Menu		
Created By:	M.Mohsin	**Last Updated By:**	Abdul Wahab
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can view the Menu and Mobile details.		
Trigger:	Menu Button.		
Preconditions:	Shop Retailer must click the Menu button.		
Post conditions:	Shop Retailer will be able to see the mobiles details.		
Normal Flow:	Actor		System
	1: Shop Retailer clicks on the Menu and then view the Details of Mobiles. 2: Shop Retailer can also view different mobiles details i.e. models, IMEI details& patched mobiles.		System shows up the Menu. System shows the required details.
Alternative Flows:	Shop Retailer can again login to the system or reload the current form.		
Exceptions:	Shop Retailer has entered wrong Mobile brand name.		

Show Mobile Stock:

Use Case ID:	Uc5
Use Case Name:	Show Mobile Stock
Created By: M.Mohsin	**Last Updated By:** Abdul Wahab
Date Created: 06/12/2023	**Last Revision Date:** 06/16/2023
Actors:	Shop Retailer
Description:	Shop Retailer can view the Mobile Stock.
Trigger:	Mobile stock tab.
Preconditions:	Shop Retailer has to click's on the Mobile Stock tab.
Post conditions:	Shop Retailer will be able to see the details.

	Actor	System
Normal Flow:	1: Shop Retailer clicks the Show Mobile Stock tab then view the available mobile models and new mobile stock arrivals.	System shows the Details of the Mobile Stock.

Alternative Flows:	Shop Retailer can again click on the tab for displaying the required page.
Exceptions:	Shop Retailer has not clicked on the desired tab.

Order Stock:

Use Case ID:	Uc6		
Use Case Name:	Order Stock		
Created By:	M.Mohsin	Last Updated By:	Danish Ali
Date Created:	06/12/2023	Last Revision Date:	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can view the Order Stock.		
Trigger:	Order Stock Tab.		
Preconditions:	Shop Retailer should click the tab to view order stock.		
Post conditions:	Shop Retailer can view the order stock details.		
Normal Flow:	Actor	System	
	1: Shop Retailer clicks the Order stock tab then view the Mobiles order quantity.	System shows the Ordered stock details.	
Alternative Flows:	Shop Retailer can click the tab to view again.		
Exceptions:	Shop Retailer has not pressed the tab just hover the mouse on it.		

Loan Summary:

Use Case ID:	Uc7
Use Case Name:	Loan Summary

Created By:	M.Mohsin	**Last Updated By:**	Abdul Wahab
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023

Actors:	Shop Retailer
Description:	Shop Retailer can Provide Loan to customer with date of Issuance and date of expiry.
Trigger:	Loan Summary tab.
Preconditions:	Shop Retailer should clicks the Loan tab.
Post conditions:	Shop Retailer has Issued the loan and view its Loan Summary.

Normal Flow:	Actor	System
	1: Shop Retailer clicks the Loan tab.	System shows the Loan details for Customer.
	2: Shop Retailer Issued or rejected the Loan.	System displays the loan-summary

Alternative Flows:	Shop Retailer can re-click on the Loan tab or again login the system to update the changes.
Exceptions:	Shop Retailer has entered the wrong date of loan issuance and expiry date.

Shop Retailer:

Use Case ID:	Uc8		
Use Case Name:	Sales		
Created By:	M.Mohsin	**Last Updated By:**	Abdul Wahab
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can View the sales and calculate his commissions and can see the profit\loss details.		
Trigger:	View Sales Button.		
Preconditions:	Shop Retailer should clicks the button to view the sales.		
Post conditions:	Shop Retailer can check the Sales details profit and loss on each mobile and commissions.		
Normal Flow:		Actor	System
	1: Shop Retailer clicks the Sales button.		System shows up the menu for Sales.
	2: Shop Retailer then click's on Calculate commission button and other buttons to view profit\loss, Daily sales.		System displays the Sales Menu
Alternative Flows:	Shop Retailer can check other sales menu then re-clicking the button for displaying the required page.		
Exceptions:	Shop Retailer has not pressed the Enter or ok button.		

Top-Ups Services:

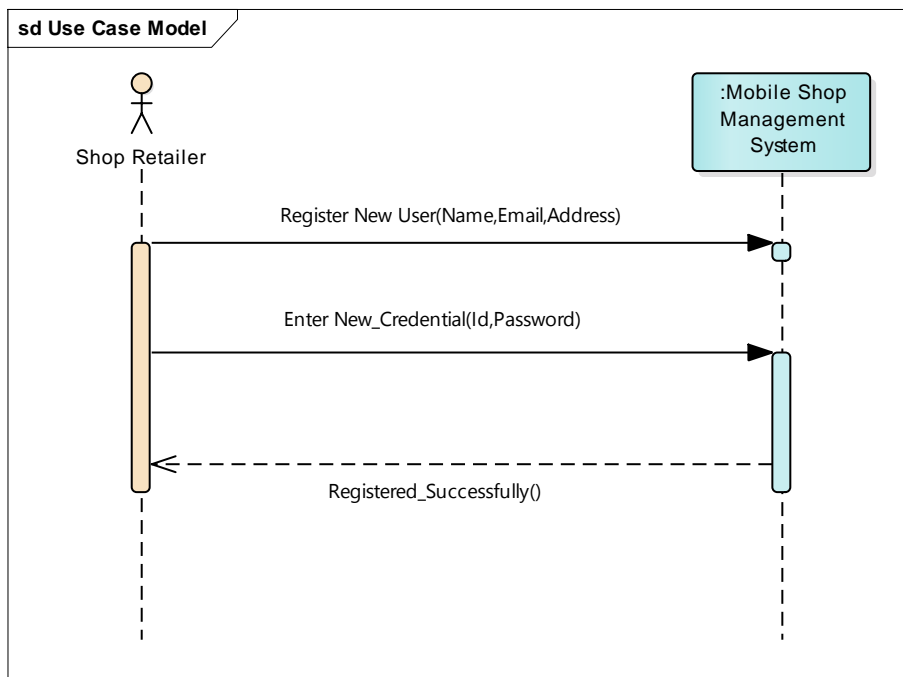| Use Case ID:	Uc9		
Use Case Name:	Top-Ups Services		
Created By:	M.Mohsin	Last Updated By:	Abdul Wahab
Date Created:	06/12/2023	Last Revision Date:	06/16/2023
Primary Actor:	Shop Retailer		
Secondary Actor:	Service Provider, Customer		
Description:	Shop Retailer, Service provider can check the entered recharge amounts details.		
Trigger:	Top-Ups Toggle-Tab		
Preconditions:	Shop Retailer should clicks the toggle tabs.		
Post conditions:	Shop Retailer has provided the customer required top-ups amount.		
Normal Flow:		Actor	System
	1: Shop Retailer clicks the tab. 2: Shop Retailer then click on enter amount to send.		System shows up the Service provider details. System displays the notification after amount is sent.
Alternative Flows:	Shop Retailer can re-enter the recharge amount and press the enter tab.		
Exceptions:	Shop Retailer has not pressed the Enter tab.		

Logout:

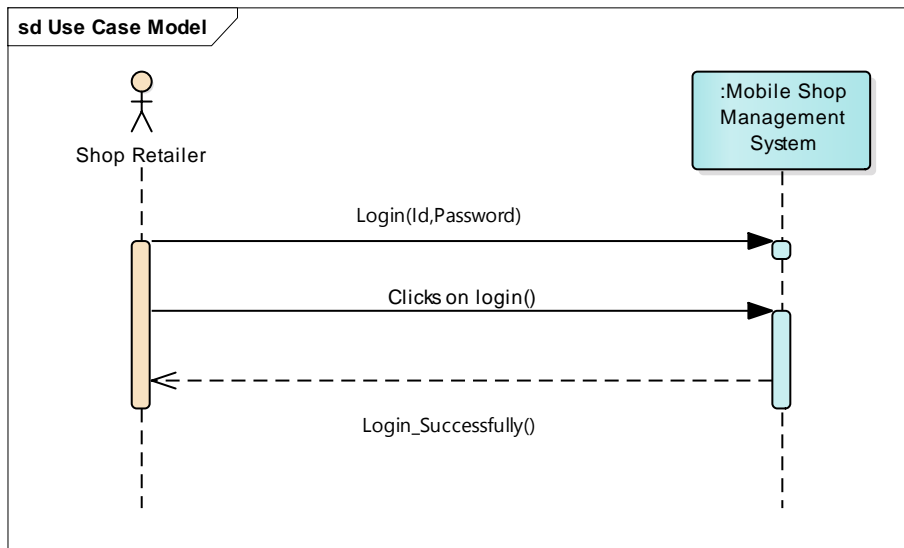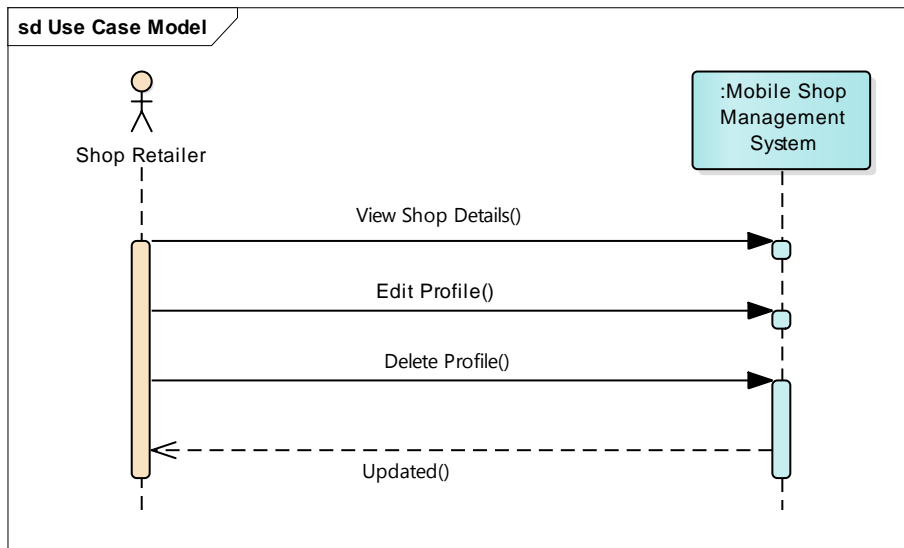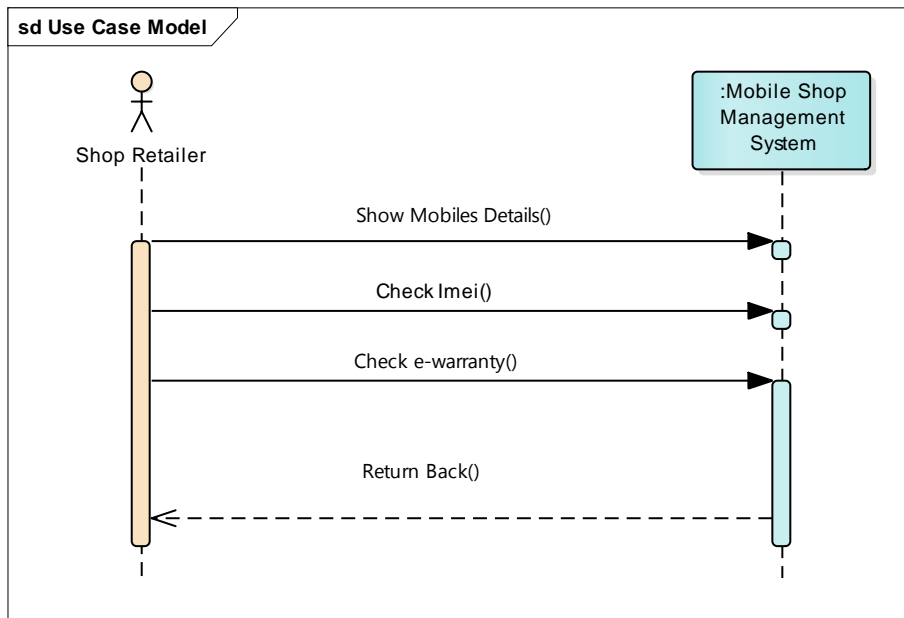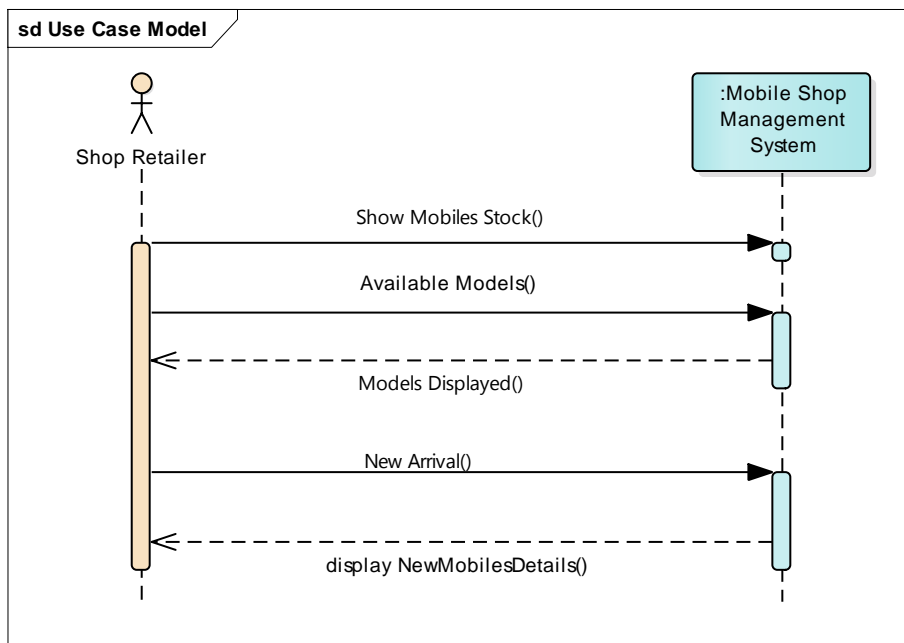| Use Case ID:	Uc10		
Use Case Name:	Logout		
Created By:	M.Mohsin	**Last Updated By:**	Danish Ali
Date Created:	06/12/2023	**Last Revision Date:**	06/16/2023
Actors:	Shop Retailer		
Description:	Shop Retailer can logout from the system.		
Trigger:	Logout Button		
Preconditions:	Shop Retailer clicks the Logout button to get log-out from the system.		
Post conditions:	Shop Retailer has logged out from the system.		
Normal Flow:		Actor	System
		1: Shop Retailer has clicked the Logout button.	System has logged-out the shop retailer successfully.
Alternative Flows:	Shop Retailer can save or exit the opened tabs then clicked on logout button.		
Exceptions:	Shop Retailer has not pressed the log-out tab.		

2.4. System Sequence diagrams

The purpose of the system sequence diagram in the mobile shop management system project is to depict the sequence of interactions between the system and actors, such as shop retailers, customers, and services provider.
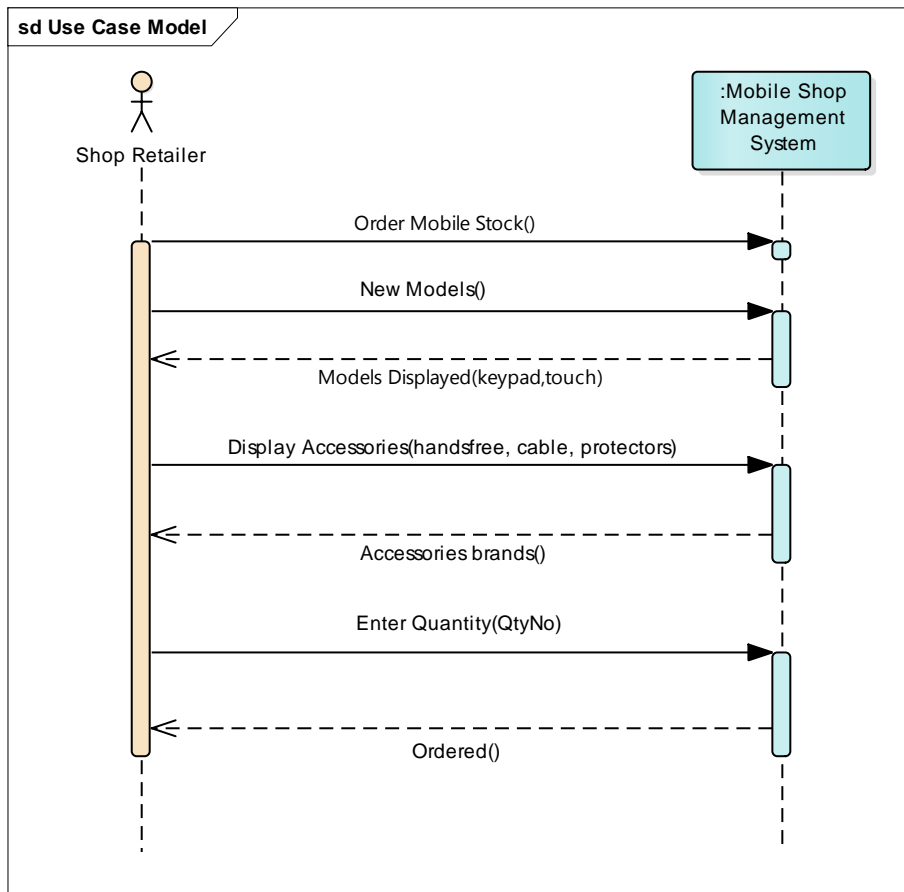
It illustrates the flow of messages and actions that occur during specific use cases or scenarios, providing a visual representation of how the system functions from a high-level perspective. The system sequence diagram helps in understanding the order of events and the exchange of information between the system and its users, aiding in the identification of system behavior, requirements, and potential areas of improvement.
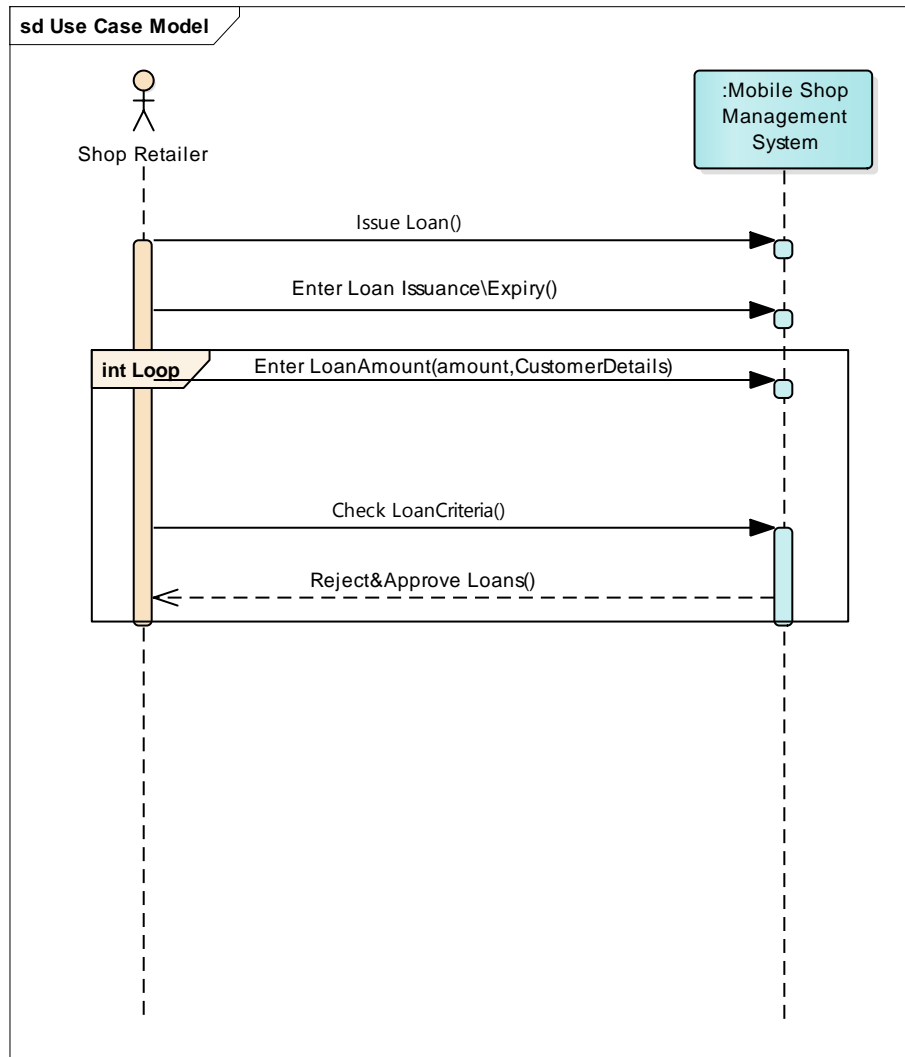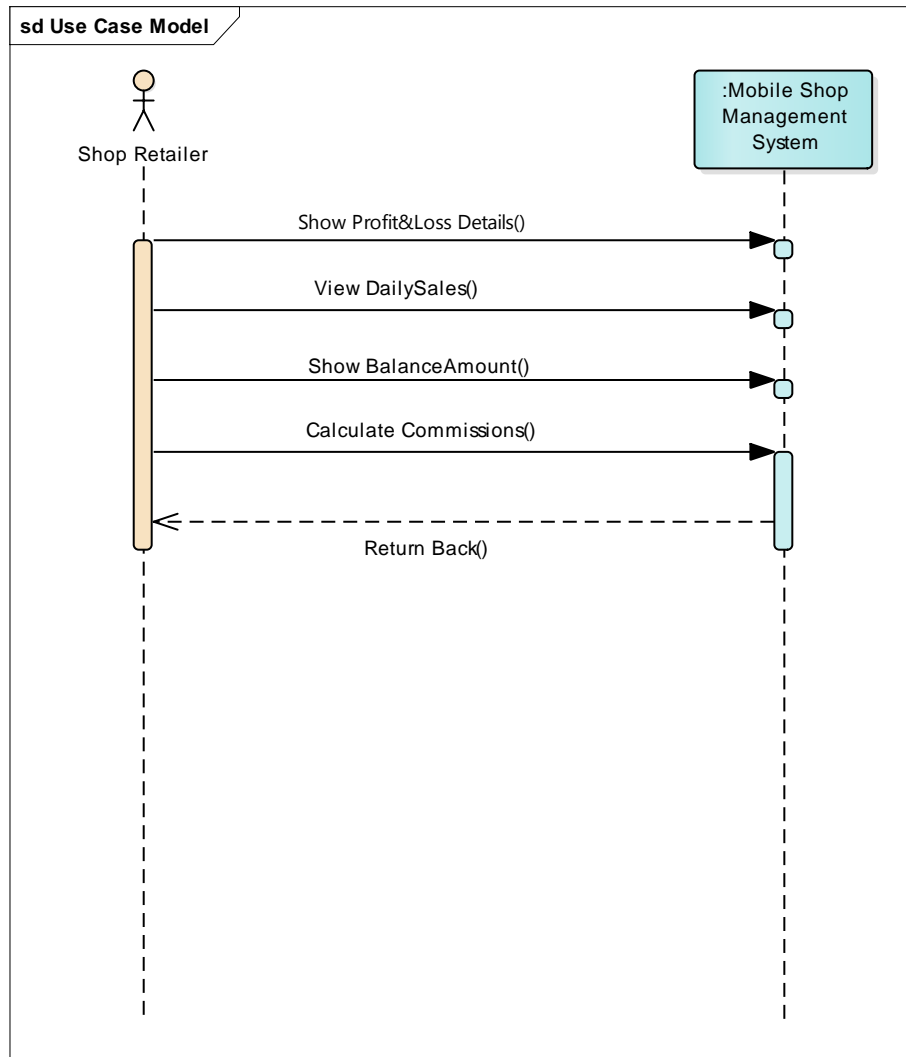
Register User:

Login:

View Shop Details:

View Menu:

Show Mobile Stock:

Order Stock:

sd Use Case Model

Shop Retailer

:Mobile Shop Management System

Order Mobile Stock()

New Models()

Models Displayed(keypad,touch)

Display Accessories(handsfree, cable, protectors)

Accessories brands()

Enter Quantity(QtyNo)
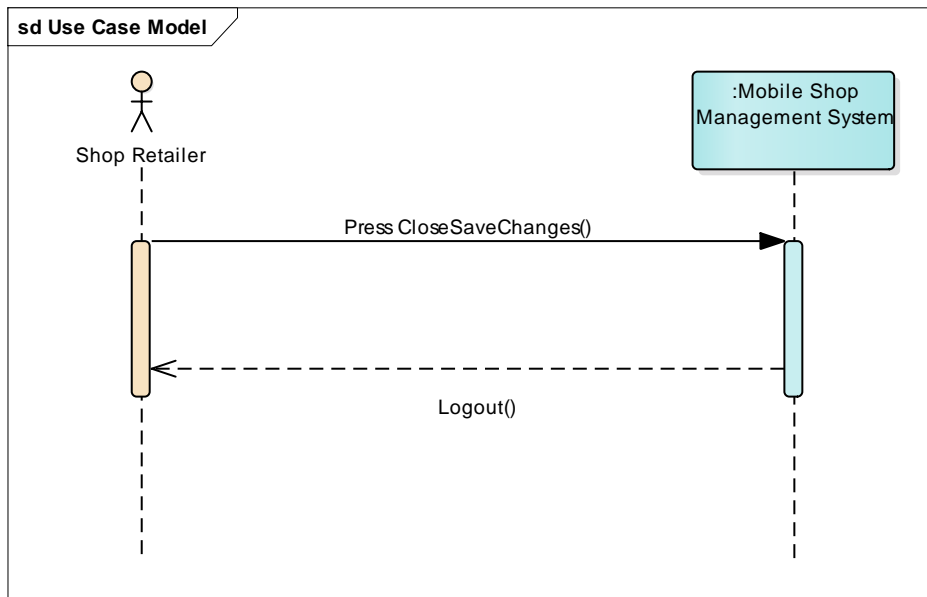
Ordered()

View Loan Summary:

View Sales:

Show Top-up Services:
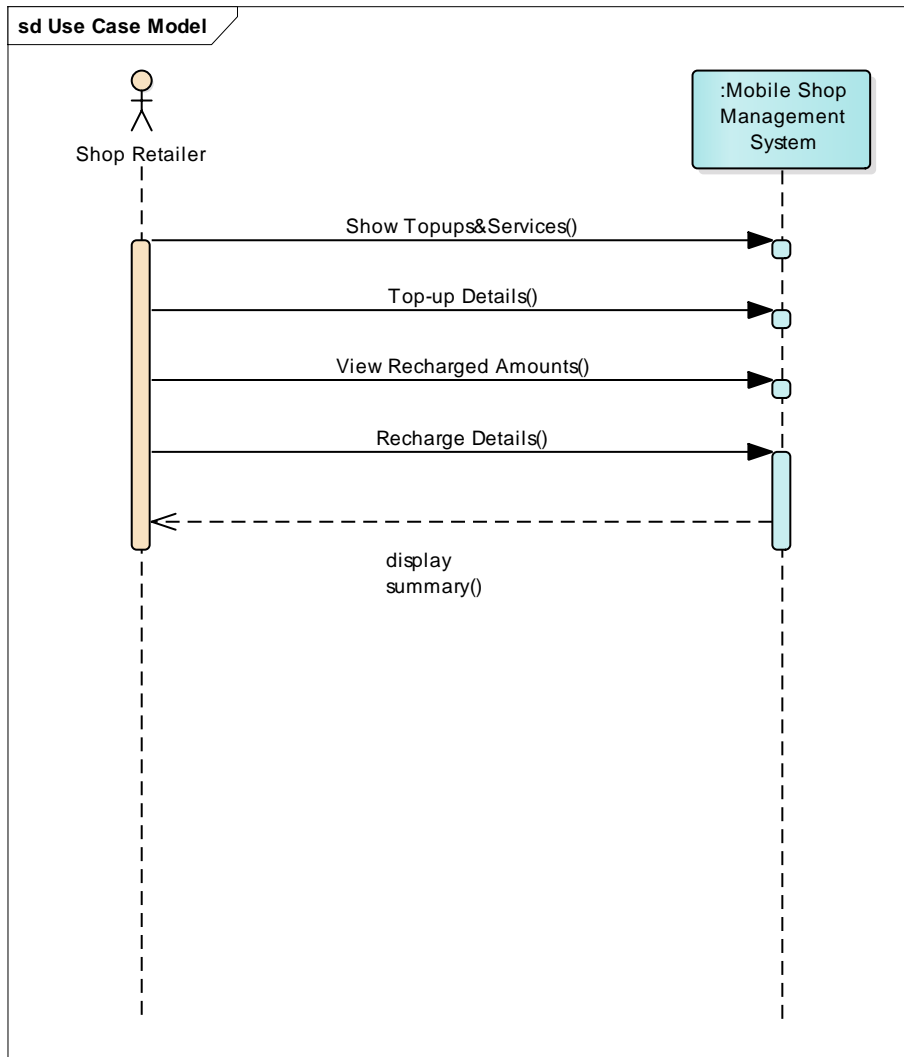
Logout:

2.5.   Domain Model

Part of your initial architectural modeling efforts, particularly for a business application, will likely include the development of high-level domain model as you see in Fig. 2.3. This model should be very slim, capturing the main business entities and the relationships between them. Some people consider this type of model to be an initial requirements model instead of an initial architecture model.
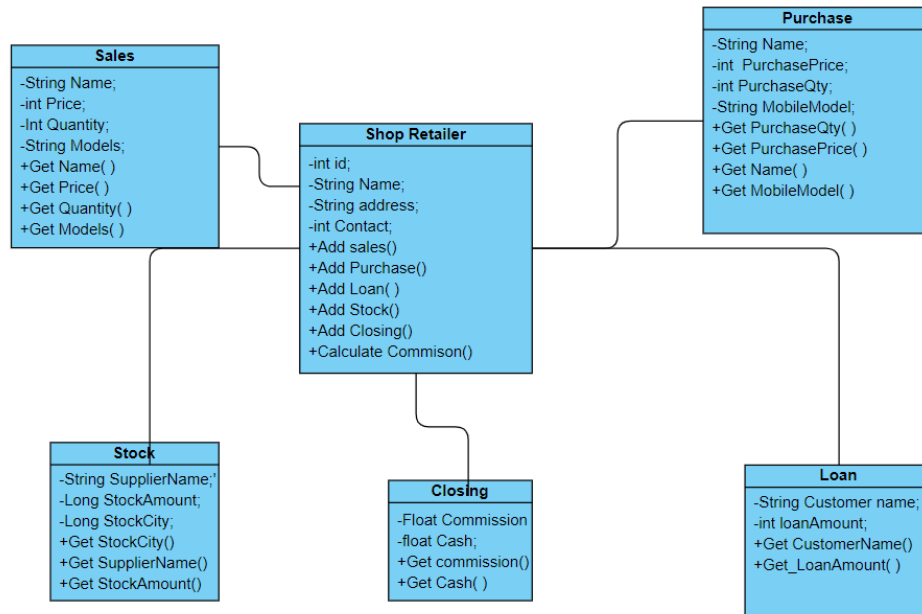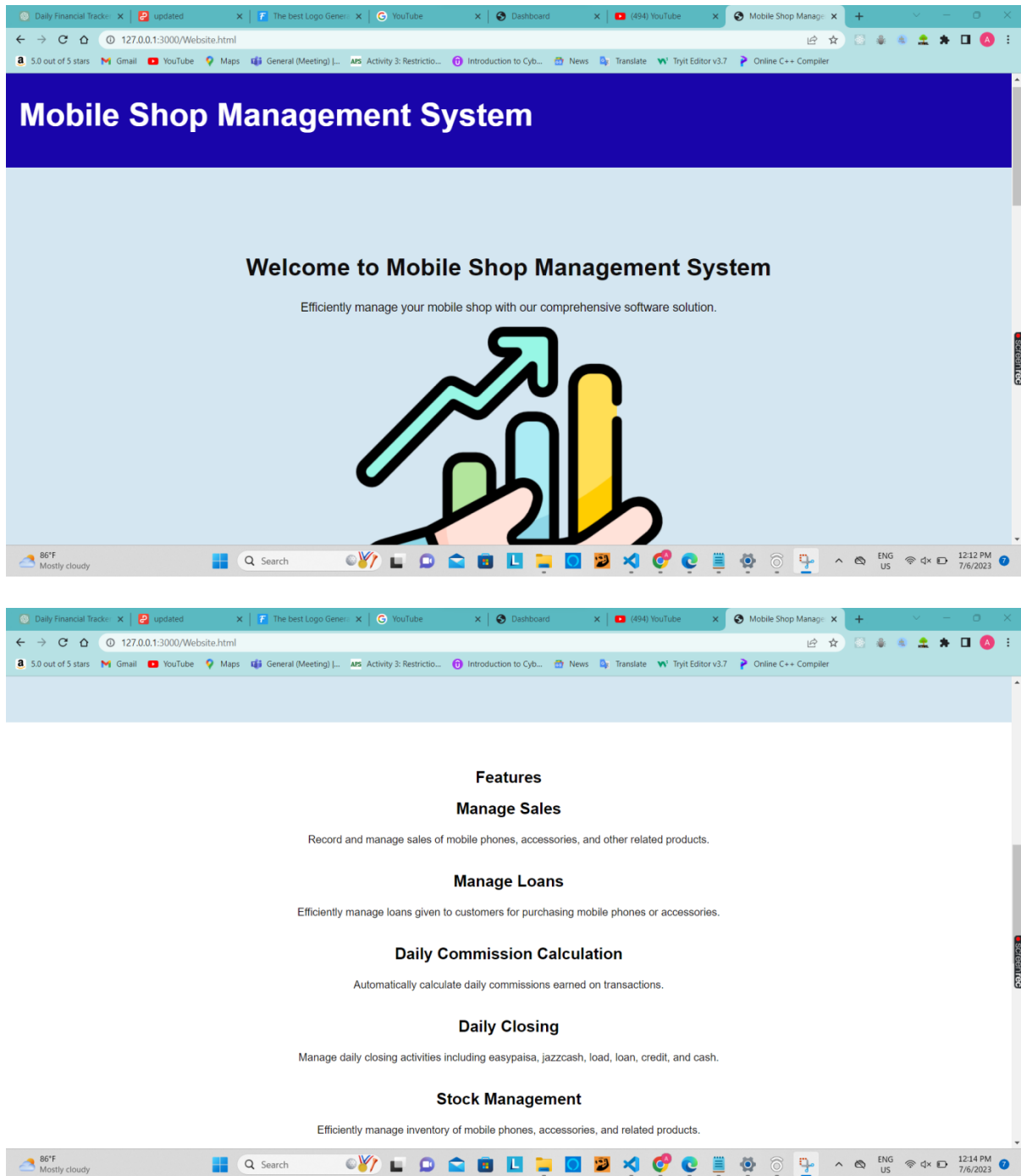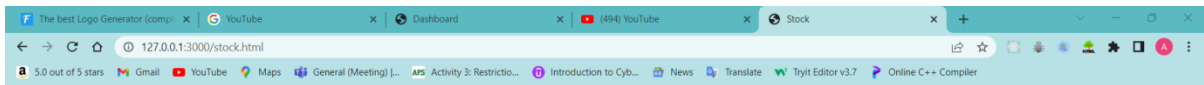
Figure 2-2 sample Domain Model

2.6.   User Interface Design (Prototypes)

User Interface (UI) Design focuses on anticipating what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate those actions. UI brings together concepts from interaction design, visual design, and information architecture.

Stock Management System

Back to Dashboard

OTG 5.0
50
otg
70
fancy traders
Add Product

Date	Product Name	Quantity	Category	Price	Supplier Information
7/6/2023	huawei	2	cable	200	turbo communication
7/6/2023	OTG 5.0	50	otg	70	fancy traders
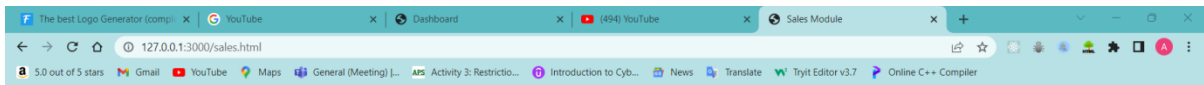
Sales

Start End

Date	Item Name	Quantity	Price	Cost	Profit
2023-07-06	Cable	1	200	160	40.00
	handfree	1	300	200	100.00
	Phone	1	2000	1700	300.00
	Glass 9d	1	250	40	210.00
Total:		**4**	**2750.00**	**2100.00**	**650.00**

Back to Dashboard

Figure 2-4 Common GUI elements

Chapter 3

3. System Design

The purpose of this chapter is to provide information that is complementary to the code. Without an adequate design that delivers required function as well as quality attributes, the project will fail. But communicating architecture to its stakeholders is as important a job as creating it in the first place.

There are two views that are considered while defining software architecture. There are specific design artifacts that belong to each view. Description of such artifacts is given below. You may select the artifacts depending on the nature of your project.

- Structural View
  - o Class diagram
- Behavioral View
  - o Sequence diagram

At a high level, a software architecture document includes:

1. An outline description of the software design, including major software components and their interactions.
2. A common understanding of requirements, constraints and principles that influence the architecture.
3. A description of the hardware and software platforms on which the system is built and deployed.
4. Explicit justification of how the architecture satisfies the above mentioned points.

Design pattern is a description or template for how to solve a problem that can be used in many different situations. Object-oriented design patterns typically show relationships and interactions between classes or objects, without specifying the final application classes or objects that are involved.

It is important that you justify its design, for example, by discussing the implications of constraints on your solution and different design choices, and then giving reasons for making the choices you did. At each stage of the design you should mention what kind of design patters have you followed while designing your system. You should identify which design pattern among the existing patterns are you following while designing your project.

3.1.   Class Diagram

The class diagram is essential for the mobile shop management system project as it provides a visual representation of the system's object-oriented structure, depicting the classes, attributes, methods, and relationships between them. The class diagram helps in understanding the system's architecture, defining the behavior and interactions of different classes, and facilitating effective communication between developers and stakeholders. It aids in system design, enabling the identification of reusable components, inheritance relationships, and encapsulation of data and functionalities. By providing a comprehensive overview of the system's class hierarchy, the class diagram supports efficient development, maintenance, and scalability of the mobile shop management system.
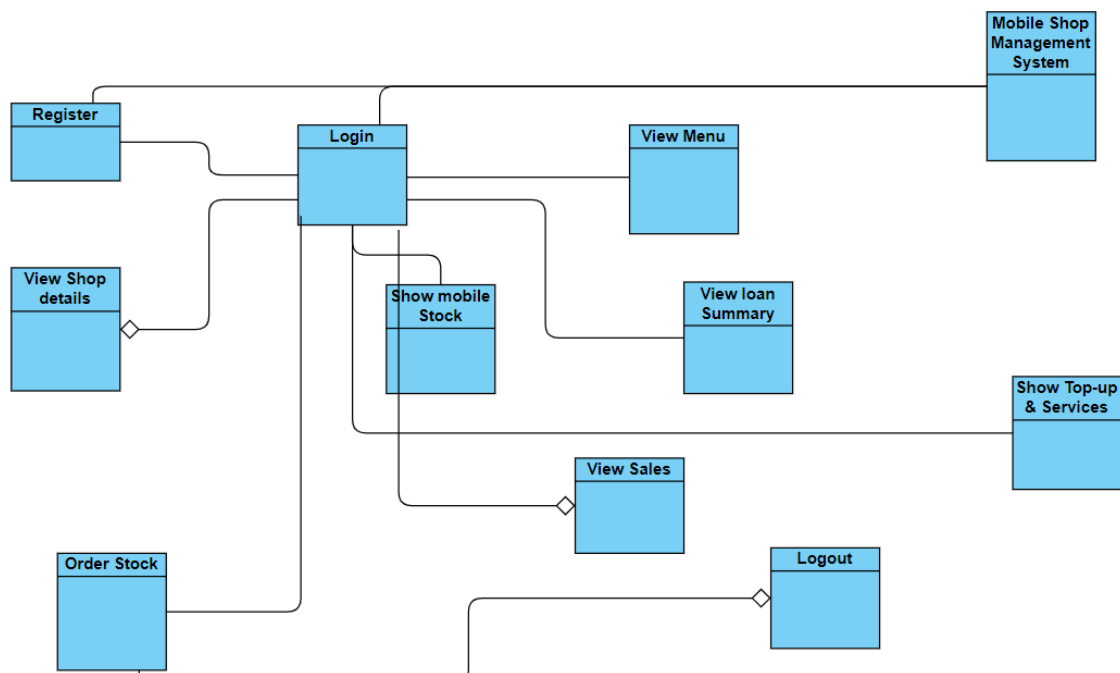
Figure 3-1 Class Diagram

3.2.   Sequence Diagram

The sequence diagram serves an important role in the mobile shop management system project by illustrating the dynamic interactions and flow of messages between different components of the system. Its primary benefit lies in providing a clear and visual representation of how various objects or actors interact during specific use cases or scenarios. This diagram aids in validating system requirements, ensuring that all necessary actions and information exchanges are considered and accurately implemented. It also helps in identifying potential errors or bottlenecks in the system's behavior or message flow, enabling improvements in system efficiency and reliability. Additionally, the sequence diagram assists in system design and architecture by visually depicting the relationships and interactions between components, guiding the overall system development process. Furthermore, it serves as a basis for generating test cases, ensuring that all possible scenarios and edge cases are accounted for during testing. In summary, the sequence diagram plays a vital role in requirements validation, system design, error identification, communication, and test case generation, Ultimately contributing to the successful development and implementation of the mobile shop management system.
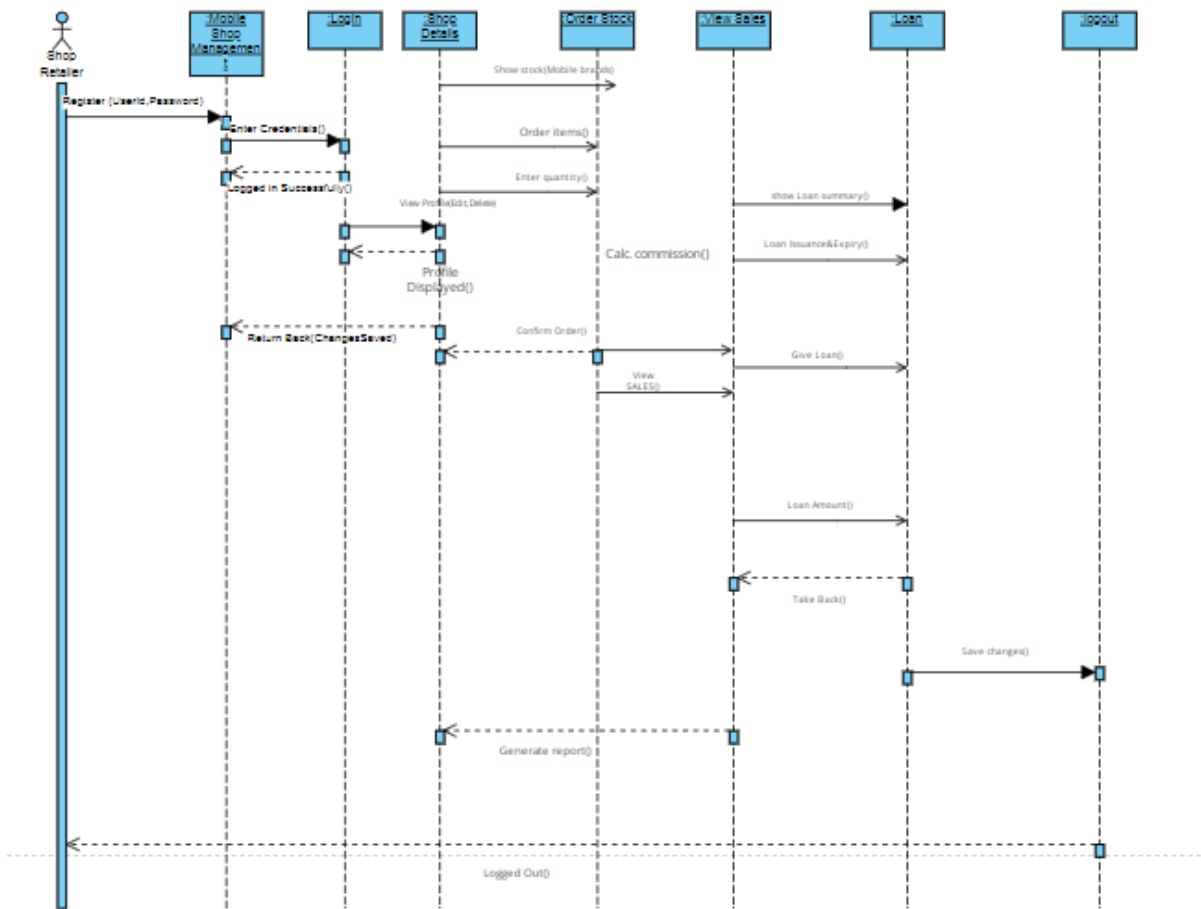
Figure 3-2 Sequence Diagram

3.3.   Entity Relationship Diagram

The purpose of creating an Entity Relationship Diagram (ERD) for the mobile shop management system is to visually represent the relationships between different entities or data elements within the system.

The ERD helps in understanding the data requirements of the system, identifying entities and their attributes, and defining the relationships between them.

It ensures data integrity, aids in database design, and serves as a foundation for developing an efficient and well-organized database structure for the mobile shop management system. As it is shown in Fig. 3.4.

erd Has

Customers

F_id
Name,Age
Customer Details

Sales

Daily sales
View P\L Summary
View Sales
VS_ID

Shop Retailer

Email
Name
Address
Sr_Id

Has

Has

Has

Service Provider

Amount
ServicesDetails
F_id

Mobile Shop Management System

Issue Loan
Calculate Commissons
Address,Details,Contact
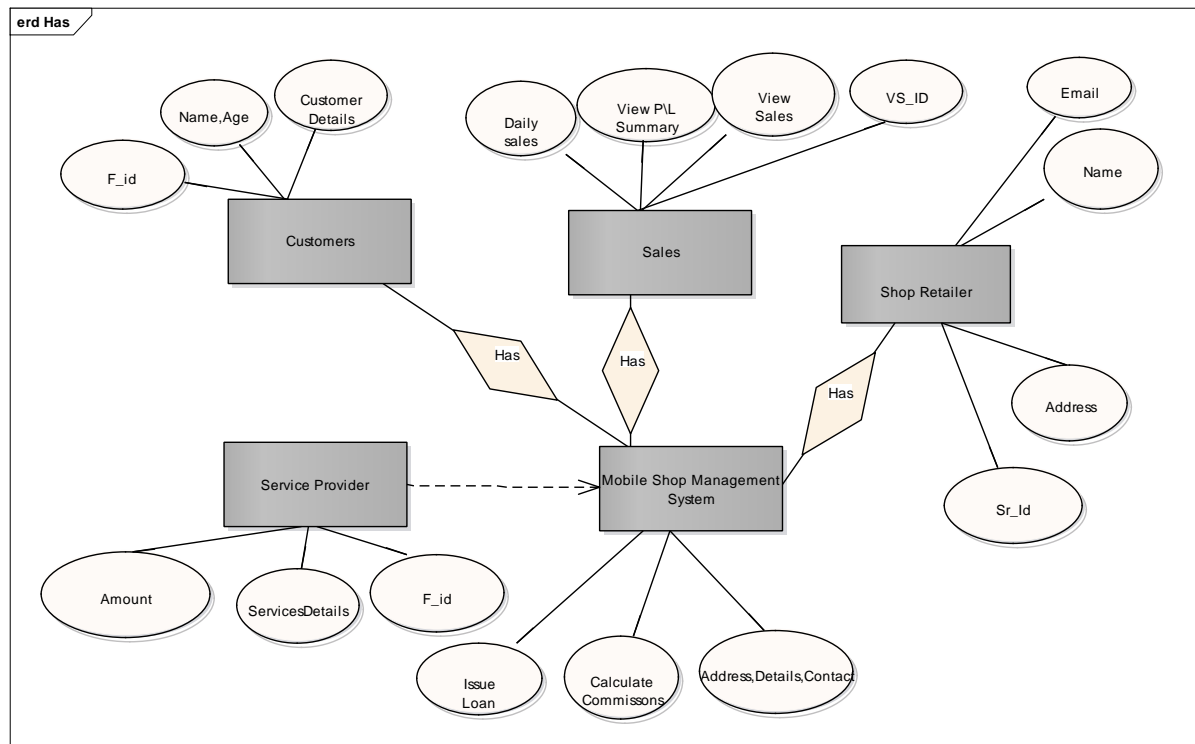
Figure 3-3 Entity Relationship Diagram

3.5.   Database Schema

The database schema is essential for the mobile shop management system as it provides the structure and organization for storing and retrieving data. It defines the tables, fields, relationships, and constraints within the database, ensuring data integrity and consistency. The schema serves as a blueprint for creating and managing the database, allowing for efficient data storage, retrieval, and manipulation. It enables proper organization and categorization of data related to inventory, sales, customers, and other crucial aspects of the mobile shop management system. By having a well-defined database schema, the system can effectively store and manage data, support complex queries, and ensure reliable data operations for seamless functioning of the mobile shop management system.

.

Chapter 4

4. Software Development

The Implementation section is similar to the Specification and Design section in that it describes the system, but it does so at a finer level of detail, down to the code level. This section is about the realization of the concepts and ideas developed earlier. It can also describe any problems that may have arisen during implementation and how you dealt with them.

Make sure that the system design corresponds to the implementation of the project. If there is no relationship between design and implementation, it may downgrade your score in FYP.

You should also mention any unforeseen problems you encountered when implementing the system and how and to what extent you overcame them. Common problems are:

- Difficulties involving existing software, because of e.g.,
    - Its complexity,
    - Lack of documentation;
- Lack of suitable supporting software
- Overambitious project aims.

A seemingly disproportionate amount of project time can be taken up in dealing with such problems. The Implementation section gives you the opportunity to show where that most of the effort has been spent.

4.1. Coding Standards

Describe the indention, declaration,naming convention and statement standard used while coding the project.

4.2.   Development Environment

In this section you will provide the reason behind using all the existing tools and technologies that you may have used during the development of your project. This includes development environment that you have used. How have you deployed the development environment? What different kind of packages you have used? Are there any third party libraries involved etc?

4.3.   Software Description

In this section you will identify major modules of the software that you have produced. You will show the class diagram of these major modules for this section. Typical subheadings of this section can be

Login process
Loading Data
Data processing
Report generation
…..

Moreover you will also discuss the logic that you have implemented in the code of those modules with the help of code snippets as shown below in the examples. Do not attempt to describe all the code in the system, and do not include large pieces of code in this section.

- Are especially critical to the operation of the system.
- You feel might be of particular interest to the reader for some reason
- Illustrate a nonstandard or innovative way of implementing an algorithm, data structure, etc.

4.3.1.   Snippet 1 (Name)

```html
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
```

```html
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Mobile Shop Management System</title>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
  }

  header {
    background-color: #1905aa;
    color: #fff;
    padding: 20px;
  }

  .logo {
    font-size: 24px;
    font-weight: bold;
  }

  .hero {
    background-color: #d4e6f1;
    text-align: center;
    padding: 100px 0;
  }

  .hero-content {
    animation: slide-up 1s ease-in-out;
  }

  @keyframes slide-up {
    0% {
      transform: translateY(100px);
      opacity: 0;
    }
    100% {
      transform: translateY(0);
      opacity: 1;
    }
  }

  .hero-content h2 {
    font-size: 36px;
    color: #0e0c0c;
  }

  .hero-content p {
    font-size: 18px;
    color: #0e0909;
    margin-top: 20px;
```

```css
}

.hero-content img {
  animation: bounce 1s infinite alternate;
}

@keyframes bounce {
  0% {
    transform: scale(1);
  }
  50% {
    transform: scale(1.1);
  }
  100% {
    transform: scale(1);
  }
}

.features {
  padding: 50px 0;
  text-align: center;
}

.feature {
  display: flex;
  align-items: center;
  justify-content: center;
  flex-wrap: wrap;
  margin-bottom: 40px;
}

.feature img {
  width: 100px;
  height: 100px;
  margin-right: 20px;
  animation: spin 2s linear infinite;
}

.feature-content {
  flex: 1;
}

.feature h3 {
  font-size: 24px;
  margin-top: 20px;
}
```

```css
.feature p {
  font-size: 16px;
  color: #0c0a0a;
  margin-top: 10px;
}

.why-choose-us {
  background-color: #f2f2f2;
  padding: 50px 0;
  text-align: center;
}

.why-choose-us h2 {
  font-size: 36px;
  margin-bottom: 30px;
}

.advantages {
  display: flex;
  justify-content: center;
  align-items: flex-start;
  margin-top: 30px;
}

.advantage {
  margin: 0 20px;
  max-width: 300px;
}

.advantage h3 {
  font-size: 24px;
  margin-top: 20px;
}

.advantage p {
  font-size: 16px;
  color: #0d0b0b;
  margin-top: 10px;
}

.cta-btn{
  display: inline-block;
  background-color: #1905aa;
  color: #fff;
  padding: 10px 20px;
  margin-top: 30px;
  text-decoration: none;
  border-radius: 5px;
}
```

```css
    .links {
      padding: 50px 0;
      text-align: center;
    }

    .links a {
      display: inline-block;
      background-color: #1905aa;
      color: #fff;
      padding: 10px 20px;
      margin-top: 10px;
      text-decoration: none;
      border-radius: 5px;
    }

    footer {
      background-color: #1905aa;
      color: #fff;
      padding: 20px;
      text-align: center;
    }

    footer p {
      margin: 0;
    }

    footer a {
      color: #fff;
      text-decoration: none;
    }
    .pricing{
      text-align: center;

    }
  </style>
</head>

<body>

  <header>
    <div class="logo">
      <h1>Mobile Shop Management System</h1>
    </div>
  </header>


  <section class="hero">
    <div class="hero-content">
      <h2>Welcome to Mobile Shop Management System</h2>
```

```html
      <p>Efficiently manage your mobile shop with our comprehensive software
solution.</p>
      <img src="pictures/sales.png" alt="Sales Icon">
    </div>
  </section>


  <section class="features">
    <h2>Features</h2>
    <div class="feature">
      <img src="pictures/sales.png" alt="Manage Sales">
      <div class="feature-content">
        <h3>Manage Sales</h3>
        <p>Record and manage sales of mobile phones, accessories, and other
related products.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/loan.png" alt="Manage Loans">
      <div class="feature-content">
        <h3>Manage Loans</h3>
        <p>Efficiently manage loans given to customers for purchasing mobile
phones or accessories.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/commission.png" alt="Daily Commission Calculation">
      <div class="feature-content">
        <h3>Daily Commission Calculation</h3>
            <p>Automatically   calculate   daily   commissions   earned   on
transactions.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/closing.png" alt="Daily Closing">
      <div class="feature-content">
        <h3>Daily Closing</h3>
        <p>Manage  daily  closing  activities  including  easypaisa,  jazzcash,
load, loan, credit, and cash.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/stock.png" alt="Stock Management">
      <div class="feature-content">
        <h3>Stock Management</h3>
        <p>Efficiently  manage  inventory  of  mobile  phones,  accessories,  and
related products.</p>
      </div>
    </div>
```

```html
      </div>
      <div class="feature">
        <img src="pictures/report.png" alt="Daily Reports">
        <div class="feature-content">
          <h3>Daily Reports</h3>
           <p>Generate comprehensive daily reports on sales, purchases, loans,
and stock.</p>
        </div>
      </div>
    </section>

    <section class="why-choose-us">
      <h2>Why Choose Us</h2>
      <div class="advantages">
        <div class="advantage">
          <h3>Advanced Features</h3>
             <p>Our software offers a wide range of advanced features to
streamline your mobile shop management process.</p>
        </div>
        <div class="advantage">
          <h3>User-Friendly Interface</h3>
            <p>We prioritize user experience and have designed an intuitive
interface for easy navigation and efficient operation.</p>
        </div>
        <div class="advantage">
          <h3>Reliable Support</h3>
           <p>Our dedicated support team is available 24/7 to assist you with
any queries or issues you may encounter during the usage of our software.</p>
        </div>
      </div>
      <a href="#contact" class="cta-btn">Contact Us</a>
    </section>

    <section class="pricing">
      <h2>Pricing</h2>
      <div class="pricing-content">
        <div class="pricing-option">
          <h3>Basic</h3>
          <p>Covers all modules</p>
          <p>24/7 Customer Support</p>
          <p>Price: Rs. 500 per month</p>
          <a href="#contact" class="cta-btn">Get Started</a>
        </div>
      </div>
    </section>

    <section class="links">
      <a href="./dashboard.html">
        Go to Mobile Shop Management Software
```

```html
      </a>
    </section>


    <footer>
      <p>&copy; 2023 AWG International. All rights reserved.</p>
      <p>Email: info@awginternational.com | Phone: 03301234567</p>
    </footer>

</body>

</html>
<!DOCTYPE html>
<html>
<head>
  <title>Login</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #04011a;
    }

    .container {
      margin-top: 100px;
      max-width: 500px;
      margin-left: 60px;
      padding: 40px;
      background-color: #fff;
      border-radius: 5px;
      box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
      margin-left: 30%;
    }

    .container h2 {
      text-align: center;
    }

    .form-group {
      margin-bottom: 15px;
    }

    .form-group label {
      display: block;
      font-weight: bold;
    }
```

```css
.form-group input[type="email"],
.form-group input[type="password"],
.form-group input[type="username"],
.form-group input[type="number"]
 {
  width: 100%;
  padding: 8px;
  border-radius: 5px;
  border: 1px solid #1905aa;
}

.form-group input[type="submit"] {
  width: 100%;
  padding: 10px;
  border-radius: 5px;
  border: none;
  background-color:#1905aa;
  color: #fff;
  cursor: pointer;
}

.form-group input[type="submit"]:hover {
  background-color: #1b8791;
}

.forgot-password p {
  display: inline;
  margin-top: 10px;
  font-style: normal;
  font-variant: #0a808b;
}



}

  </style>
</head>
<body>
  <div class="container">
    <h2>Signup</h2>
    <form action="signup.php" method="POST">
      <div class="form-group">
```

```html
      <label for="email">Email</label>
      <input type="email" id="email" name="email" required>
    </div>
    <div class="form-group">
      <label for="Username">Username</label>
      <input type="Username" id="Username" name="Username" required>
    </div>
    <div class="form-group">
      <label for="tel">phone no.</label>
      <input type="number" id="tel" name="tel" required>
    </div>
    <div class="form-group">
      <label for="password">Password</label>
      <input type="password" id="password" name="password" required>
    </div>
    <div class="form-group">
      <input type="submit" value="Signup">
    </div>
    <div class="forgot-password">

      <p><a href="./login.html">Already Have an Account?</a></p>
    </div>

  </form>
  </div>
</body>
</html>
<!DOCTYPE html>
<html>
<head>
  <title>Login</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #04011a;
    }

    .container {
      margin-top: 130px;
      max-width: 450px;
      margin-left: 60px;
      padding: 40px;
      background-color: #fff;
      border-radius: 5px;
```

```css
  box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
 margin-left: 30%;
}


.container h2 {
  text-align: center;
}


.form-group {
  margin-bottom: 15px;
}


.form-group label {
  display: block;
  font-weight: bold;
}


.form-group input[type="email"],
.form-group input[type="password"] {
  width: 100%;
  padding: 8px;
  border-radius: 5px;
  border: 1px solid #1905aa;
}


.form-group button {
  width: 100%;
  padding: 10px;
  border-radius: 5px;
  border: none;
  background-color: #1905aa;
  color: #fff;
  cursor: pointer;

}


.form-group button a{
  color:white;
  font-size: 15px;
}
.form-group input[type="submit"]:hover {
  background-color: #1b8791;
}
```

```
    .forgot-password {
      text-align: center;
      margin-top: 10px;


    }
    .forgot-password a {
    margin-left: 40px;


    }
  </style>
</head>
<body>
  <div class="container">
    <h2>Login</h2>
    <form>
      <div class="form-group">
        <label for="email">Email</label>
        <input type="email" id="email" name="email" required>
      </div>
      <div class=
```

Description: This function takes 2 arguments. Then we have an infinite loop that swaps the value of the two passed variables.

You are not allowed to include the complete source code of the software how ever you can include important functions of your major modules to discuss the logic of your code.

4.3.2. Snippet 2

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Mobile Shop Management System</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
```

```css
}

header {
  background-color: #1905aa;
  color: #fff;
  padding: 20px;
}

.logo {
  font-size: 24px;
  font-weight: bold;
}

.hero {
  background-color: #d4e6f1;
  text-align: center;
  padding: 100px 0;
}

.hero-content {
  animation: slide-up 1s ease-in-out;
}

@keyframes slide-up {
  0% {
    transform: translateY(100px);
    opacity: 0;
  }
  100% {
    transform: translateY(0);
    opacity: 1;
  }
}

.hero-content h2 {
  font-size: 36px;
  color: #0e0c0c;
}

.hero-content p {
  font-size: 18px;
  color: #0e0909;
  margin-top: 20px;
}

.hero-content img {
  animation: bounce 1s infinite alternate;
}
```

```css
@keyframes bounce {
  0% {
    transform: scale(1);
  }
  50% {
    transform: scale(1.1);
  }
  100% {
    transform: scale(1);
  }
}

.features {
  padding: 50px 0;
  text-align: center;
}

.feature {
  display: flex;
  align-items: center;
  justify-content: center;
  flex-wrap: wrap;
  margin-bottom: 40px;
}

.feature img {
  width: 100px;
  height: 100px;
  margin-right: 20px;
  animation: spin 2s linear infinite;
}



.feature-content {
  flex: 1;
}

.feature h3 {
  font-size: 24px;
  margin-top: 20px;
}

.feature p {
  font-size: 16px;
  color: #0c0a0a;
  margin-top: 10px;
}

.why-choose-us {
```

```css
  background-color: #f2f2f2;
  padding: 50px 0;
  text-align: center;
}

.why-choose-us h2 {
  font-size: 36px;
  margin-bottom: 30px;
}

.advantages {
  display: flex;
  justify-content: center;
  align-items: flex-start;
  margin-top: 30px;
}

.advantage {
  margin: 0 20px;
  max-width: 300px;
}

.advantage h3 {
  font-size: 24px;
  margin-top: 20px;
}

.advantage p {
  font-size: 16px;
  color: #0d0b0b;
  margin-top: 10px;
}

.cta-btn{
  display: inline-block;
  background-color: #1905aa;
  color: #fff;
  padding: 10px 20px;
  margin-top: 30px;
  text-decoration: none;
  border-radius: 5px;
}

.links {
  padding: 50px 0;
  text-align: center;
}

.links a {
  display: inline-block;
```

```
      background-color: #1905aa;
      color: #fff;
      padding: 10px 20px;
      margin-top: 10px;
      text-decoration: none;
      border-radius: 5px;
    }

    footer {
      background-color: #1905aa;
      color: #fff;
      padding: 20px;
      text-align: center;
    }

    footer p {
      margin: 0;
    }

    footer a {
      color: #fff;
      text-decoration: none;
    }
    .pricing{
      text-align: center;

    }
  </style>
</head>

<body>

  <header>
    <div class="logo">
      <h1>Mobile Shop Management System</h1>
    </div>
  </header>


  <section class="hero">
    <div class="hero-content">
      <h2>Welcome to Mobile Shop Management System</h2>
      <p>Efficiently manage your mobile shop with our comprehensive software
solution.</p>
      <img src="pictures/sales.png" alt="Sales Icon">
    </div>
  </section>


  <section class="features">
```

```html
    <h2>Features</h2>
    <div class="feature">
      <img src="pictures/sales.png" alt="Manage Sales">
      <div class="feature-content">
        <h3>Manage Sales</h3>
         <p>Record and manage sales of mobile phones, accessories, and other
related products.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/loan.png" alt="Manage Loans">
      <div class="feature-content">
        <h3>Manage Loans</h3>
         <p>Efficiently manage loans given to customers for purchasing mobile
phones or accessories.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/commission.png" alt="Daily Commission Calculation">
      <div class="feature-content">
        <h3>Daily Commission Calculation</h3>
             <p>Automatically   calculate   daily   commissions   earned   on
transactions.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/closing.png" alt="Daily Closing">
      <div class="feature-content">
        <h3>Daily Closing</h3>
          <p>Manage daily closing activities including easypaisa, jazzcash,
load, loan, credit, and cash.</p>
      </div>
    </div>
    <div class="feature">
      <img src="pictures/stock.png" alt="Stock Management">
      <div class="feature-content">
        <h3>Stock Management</h3>
          <p>Efficiently manage inventory of mobile phones, accessories, and
related products.</p>
      </div>
    </div>

    </div>
    <div class="feature">
      <img src="pictures/report.png" alt="Daily Reports">
      <div class="feature-content">
        <h3>Daily Reports</h3>
         <p>Generate comprehensive daily reports on sales, purchases, loans,
and stock.</p>
      </div>
    </div>
```

```html
    </section>

    <section class="why-choose-us">
      <h2>Why Choose Us</h2>
      <div class="advantages">
        <div class="advantage">
          <h3>Advanced Features</h3>
            <p>Our software offers a wide range of advanced features to
streamline your mobile shop management process.</p>
        </div>
        <div class="advantage">
          <h3>User-Friendly Interface</h3>
            <p>We prioritize user experience and have designed an intuitive
interface for easy navigation and efficient operation.</p>
        </div>
        <div class="advantage">
          <h3>Reliable Support</h3>
           <p>Our dedicated support team is available 24/7 to assist you with
any queries or issues you may encounter during the usage of our software.</p>
        </div>
      </div>
      <a href="#contact" class="cta-btn">Contact Us</a>
    </section>


    <section class="pricing">
      <h2>Pricing</h2>
      <div class="pricing-content">
        <div class="pricing-option">
          <h3>Basic</h3>
          <p>Covers all modules</p>
          <p>24/7 Customer Support</p>
          <p>Price: Rs. 500 per month</p>
          <a href="#contact" class="cta-btn">Get Started</a>
        </div>
      </div>
    </section>

    <section class="links">
      <a href="./dashboard.html">
        Go to Mobile Shop Management Software
      </a>
    </section>


    <footer>
      <p>&copy; 2023 AWG International. All rights reserved.</p>
      <p>Email: info@awginternational.com | Phone: 03301234567</p>
    </footer>
```

```html
</body>

</html>
<!DOCTYPE html>
<html>
<head>
  <title>Login</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #04011a;
    }

    .container {
      margin-top: 100px;
      max-width: 500px;
      margin-left: 60px;
      padding: 40px;
      background-color: #fff;
      border-radius: 5px;
      box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
      margin-left: 30%;
    }

    .container h2 {
      text-align: center;
    }

    .form-group {
      margin-bottom: 15px;
    }

    .form-group label {
      display: block;
      font-weight: bold;
    }

    .form-group input[type="email"],
    .form-group input[type="password"],
    .form-group input[type="username"],
    .form-group input[type="number"]
     {
      width: 100%;
      padding: 8px;
```

```
      border-radius: 5px;
      border: 1px solid #1905aa;
    }

    .form-group input[type="submit"] {
      width: 100%;
      padding: 10px;
      border-radius: 5px;
      border: none;
      background-color:#1905aa;
      color: #fff;
      cursor: pointer;
    }

    .form-group input[type="submit"]:hover {
      background-color: #1b8791;
    }

    .forgot-password p {
      display: inline;
      margin-top: 10px;
      font-style: normal;
      font-variant: #0a808b;



    }

  </style>
</head>
<body>
  <div class="container">
    <h2>Signup</h2>
    <form action="signup.php" method="POST">
      <div class="form-group">
        <label for="email">Email</label>
        <input type="email" id="email" name="email" required>
      </div>
      <div class="form-group">
        <label for="Username">Username</label>
        <input type="Username" id="Username" name="Username" required>
      </div>
      <div class="form-group">
```

```html
        <label for="tel">phone no.</label>
        <input type="number" id="tel" name="tel" required>
      </div>
      <div class="form-group">
        <label for="password">Password</label>
        <input type="password" id="password" name="password" required>
      </div>
      <div class="form-group">
        <input type="submit" value="Signup">
      </div>
      <div class="forgot-password">

        <p><a href="./login.html">Already Have an Account?</a></p>
      </div>

    </form>
  </div>
</body>
</html>
<!DOCTYPE html>
<html>
<head>
  <title>Login</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #04011a;
    }

    .container {
      margin-top: 130px;
      max-width: 450px;
      margin-left: 60px;
      padding: 40px;
      background-color: #fff;
      border-radius: 5px;
      box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
     margin-left: 30%;
    }

    .container h2 {
      text-align: center;
    }
```

```css
.form-group {
  margin-bottom: 15px;
}

.form-group label {
  display: block;
  font-weight: bold;
}

.form-group input[type="email"],
.form-group input[type="password"] {
  width: 100%;
  padding: 8px;
  border-radius: 5px;
  border: 1px solid #1905aa;
}

.form-group button {
  width: 100%;
  padding: 10px;
  border-radius: 5px;
  border: none;
  background-color: #1905aa;
  color: #fff;
  cursor: pointer;

}

.form-group button a{
  color:white;
  font-size: 15px;
}
.form-group input[type="submit"]:hover {
  background-color: #1b8791;
}

.forgot-password {
  text-align: center;
  margin-top: 10px;

}
.forgot-password a {
margin-left: 40px;
```

```
    }
  </style>
</head>
<body>
  <div class="container">
    <h2>Login</h2>
    <form>
      <div class="form-group">
        <label for="email">Email</label>
        <input type="email" id="email" name="email" required>
      </div>
      <div class=
```

Description: This function pops the top of the stack. It places the top pointer to the next item of the stack and return the popped item.

You are not allowed to include the complete source code of the software how ever you can include important functions of your major modules to discuss the logic of your code.

All the documents, papers, articles and WebPages that you have taken help from must be cited in the references section

Webpage
Author(s) and/or organization, date of publish or date the page was last updated, title of web page document, website address that provides a direct link to the document, and the date you last accessed the document

Plagiarism Report

Attached plagiarism report here that can be obtained from the library.

Danish Nadeem

By 1.

Submission date: 07-Jul-2023 04:37PM (UTC+0500)
Submission ID: 2127674578
File name: Final_Report3.docx (1.83M)
Word count: 6441
Character count: 40685

Danish Nadeem

20%   22%   6%   26%

SIMILARITY INDEX   INTERNET SOURCES   PUBLICATIONS   STUDENT PAPERS

PRIMARY SOURCES

Report Approval Certificate

The report of the project, "Title" has been approved based on the following evaluation guideline.

Project Evaluation Guidelines

Artifacts Guidelines	
Analysis and Design artifacts are syntactically correct (use-case model, SSDs, domain model, class diagram, SDs, ERDs, Flow charts, Activity Diagram, DFDs)	
Consistency and traceability have been maintained among different artifacts	
General Guidelines	
Formatting (font style, indentation) is according to the FYP template and consistent throughout the document	
Captions are added to all the figures and tables. Figure captions must be placed below each figure, and table captions must be provided above the table	
Each figure or table is followed by some text describing what it represents	

_____   _____   _____

Name & Signature   Name & Signature   Name & Signature

(Examiner 1)   (Examiner 2)   (Examiner3)

_____

Name & Signature

(Supervisor)