THE SUPERIOR COLLEGE LAHORE

Faculty of Computer Science & IT

Final Year Project
PROJECT REPORT

[Online Mobile Market]

Project ID: **[FYP-MCSM-S20-009]**

Project Team

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[Sir Noman Sarwar]
([Lecture])

Project Report

[Online Mobile Market]

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Mubashar, Naveed	1.0		Template 6	
Mubashar, Naveed	1.2		Documentation	
Mubashar, Naveed	1.3		Review of layouts	
Mubashar, Naveed	1.4		Review of coding	
Mubashar, Naveed	1.5		Review of coding	
Mubashar, Naveed	1.6		Review of database	
Mubashar, Naveed	1.7		Overall review	
Mubashar, Naveed	1.8		finalize	

APPROVAL

PROJECT SUPERVISOR

Comments: _____

_____

Name: _____

Date: _____ Signature: _____

PROJECT MANAGER

Comments: _____

_____

Date: _____ Signature: _____

HEAD OF THE DEPARTMENT

Comments: _____

_____

Date: _____ Signature: _____

Dedication

First of all, we dedicate our project to Allah Almighty

And to whom the world owes its existence

Muhammad (Peace Be upon Him)

This humble effort is dedicated to

Our beloved parents who brought us

To the level of excellence where we

Are studying today looking for most

Promising and gleaming future ahead

For which they scarified most of the

Time of their life

&

To our respected and genius teachers

Who guided us throughout academic career!

And all those people

Who have remembered us in their prayers!

A lot of thanks for all my teachers!

Acknowledgements

First of all, I thank the **God Almighty,** for giving us the courage and perseverance in completing the main project. This project itself is acknowledgement for all those people who have given us their heart-felt cooperation in making this project a grand success.

I extend my thanks to **Dr. Asad (HOD)** Head of department for providing the sufficient and good environment in the university to complete our Degree.

Special thankful to our supervisor (**Sir Noman (Lecturer)**) who gave us their knowledge about project to us and help us to complete this project. Once again thank the Almighty God for giving us the braveness and perseverance in finishing the principal project.

Also, thanks to my **Parents**, **Teachers and Friends** who gave me their knowledge. So, I can easily get the requirements and finalize the project within time frame.

Special thanks to all the **IT (Information Technology) faculty teacher**. To share their knowledge about study and personal life experiences with us, also advices us encourage us to do better work in this project. So, we use that knowledge to enhance our knowledge and make ease for this world in the field of Information Technology.

Executive Summary

"Online Mobile Market" is defined as an internet-based solution for current shopping system. Online Mobile Market is a web-based project. It is online market where customer can buy new mobile phone, buy & sell old mobile phone using bidding. It also provides complete repairing guideline. Admin can register the shopkeepers and the shopkeeper can register their shops and increase their sales. Project development has been coupling with time and cost problem though history. This has motivated the search for flexible, trustworthy, time cost-efficient development. In order to achieve this, we developed a website.

Features list down

- Customer Information Management.
- Seller's Management.
- Live Dashboard for products.
- Customer wise Orders Reports for shopkeepers.
- Notifications generation according to affordability and requirements of customers.
- Repairing Guidance.
- Selling new or old mobiles and their accessories by using bidding

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Chapter 1

Introduction

Chapter 1: Introduction

“Online mobile Market” is providing a platform, where shopkeepers would register their shops. Shopkeeper have a better opportunity to sell their products to customers whereas customers would have facilities to search products according to their requirements and budget. Online Mobile market can also be customized as per requirements and needs of any specific customer who may require some possible customization features. It’s based on Multiple Roles and authentications. It will also provide the feedback of customer to shopkeepers. The feedback mechanism will play an important role to increase the ratings of the shopkeepers. This system will help to increase the sales of the shops. The shopkeepers will provide fix rate to the customers and will be reduced the bargaining power of the customers. Through this website, the valuable time of customers will be saved and the quality product will be provided as required by the customers. Website will also provide the effective communication between customers and shopkeepers.

In this system admin can login the system then he has opportunity to registered, unregistered the shops and admin can record of all the registered shops. He has information about all the shops and manage all the shops. Admin also have opportunity to get feedback of the customer. If any shopkeeper cannot follow the role, regulation and any case of fraud admin can block him. Admin can generate the report.

Shopkeeper add and remove the new products and mobile accessories in the database. In case of any problem, he can directly message to admin. Shopkeeper can sell and buy the mobile phones and mobile accessories. He can also receive the digital cash from the customer

The customer who does not have account they can only view the available the products. They cannot buy it. The customer has to register to the website to access most of the feature of the application. The customer has to entered the details like user name, password, phone number etc. After the registration customer will be able to sell and purchase the products. The customer can pay many by using digital cash.
Customer can sell and porches mobile by bidding. Customer can rate.

1.1 Background

The purpose of the Project entitled as “ONLINE MOBILE Market” is a Website for user and Shopkeepers which is user friendly, simple, fast, and cost – effective. It deals with the collection of Customer information, details, etc.

1.1 Motivations and Challenges

The purpose of the Project entitled as “ONLINE MOBILE Market” is a Website for user and Shopkeepers which is user friendly, simple, fast, and cost – effective. It deals with the collection of Customer information, details, etc.

1.2 Goals and Objectives

The people revealed us that there are no fixed limits and hence we had to choose Visual Studio which is preeminent language of database management where in any limit can be fed in as specified by the user and accordingly the processes are under control.

As this is generic software it can used by wide variety of outlets (managers to customers) to automate the process of manually maintaining the records related the subject of maintaining the transaction flow. This software helps the owners of Shops to maintain day by day transactions in computer.

1.3 Literature Review/Existing Solutions

At present traders maintain day to day transactions where a waiter has to go at each Shop and See the products and give to the chef and the must be passed to a cashier. During this process it takes lots of time and customer must wait till the process. Only single system is used this process.

1.4 Gap Analysis

We provide an online system in which they can online day by day. The purpose of project is to build website to reduce manual Shopping system. Customer also wastes time on shops for shaping the mobile and its products. Also, customer’s data is not up to date and record is not saved. The product Update, Inventory Control, and Online Facility can be done by day by day processed.

The products can be organized by categories of product items. The system greatly simplifies ordering process in real time and it reduces load on end shops.

1.5 Proposed Solution

We are making a website to solve above mentioned problems and providing solution to our customer to search mobile phones on different nearby shops, their prices, new upcoming mobile notifications with estimated prices, shops details, Repairing Guidance, selling new, sell old mobiles using bidding and their accessories. It will be simple and easy to use. People are able to grow their businesses quite profitably through their websites. Website has become powerful tool for business because it gives owners the opportunity to promote their products and services with less investment.

- Satisfy the customer
- Time Saving
- Reasonable price
- Bidding System
- Buy Online new mobile
- Repairing Guidance

1.6 Project Plan

Creating a website is a complicated task that involves the expertise of many skilled professionals from the various discipline include computer science, interface designing, media designing and business. In this Project plane of online mobile market will be developed in website by using Html, CSS, php, JavaScript, Sql, jQuery. This project is divided into various section as working like design, implementation, finance, marketing analysis, research and market knowledge.

1.8 Work Breakdown Structure

As our research work is still going on and we are not much familiarized with the development tools, we only got success in completing about 45% of our work. Up to now we have completed the work on the client or driver side application with positive result. Our research work is still going on along with the code and testing.

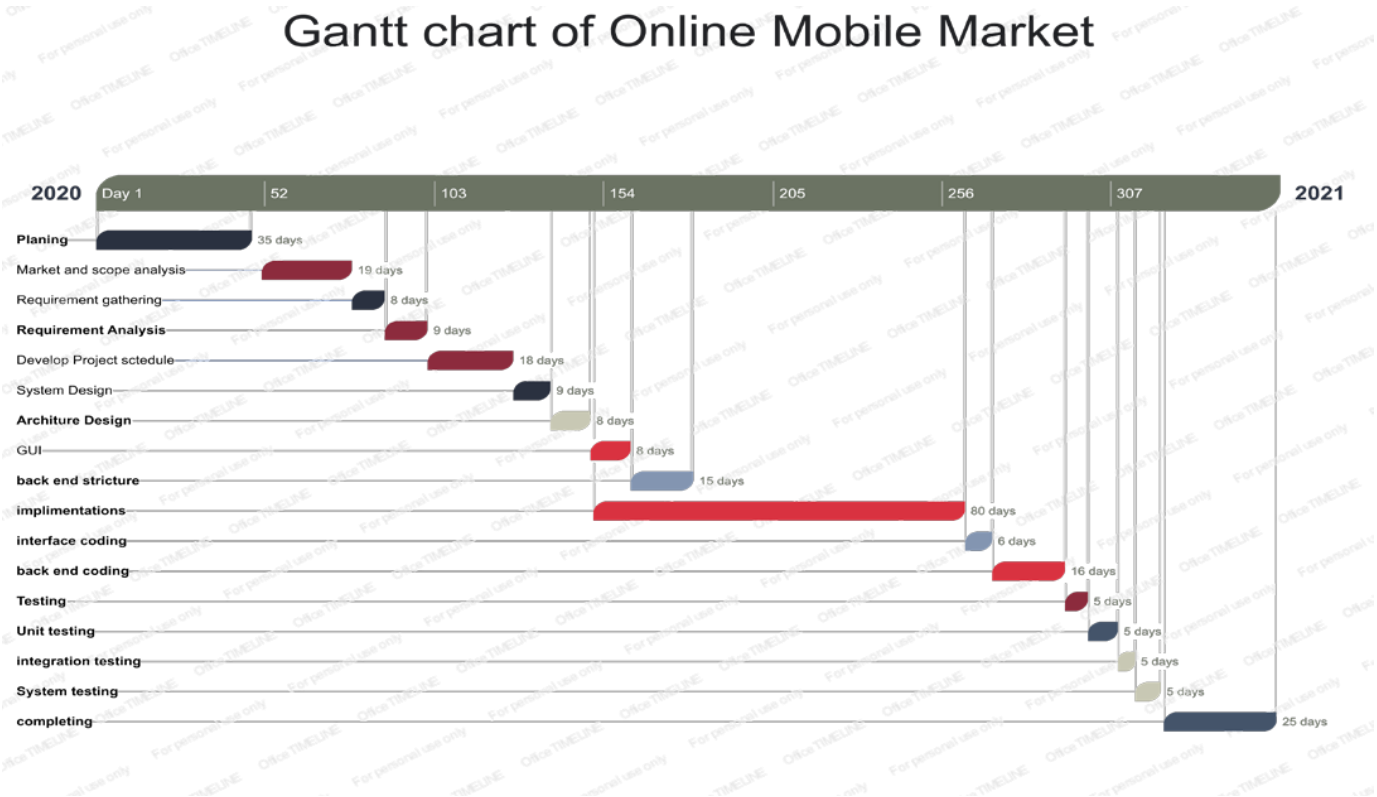
We have approximately 55% work remaining till now. We are giving our best attempt to make the application useful, interactive and error free. Currently, we are working on that 55% work on the client and database part of our project.

During our research session we got some problem in getting related projects. It was not so easy to study on the relevant project and acquire knowledge about the working mechanisms. We got some error while testing our app in Android Studio so we used an android phone for the testing and debugging purpose. We got stuck in Google

1.9 Roles & Responsibility Matrix

1. WBS	WBS Deliverables	Activities	Activities to complete the Deliverable	Duration	Responsible Term Member's
	1.1 Initial level	1.1.1	Interview, survey & research	15	Naveed Mubashar
		1.1.2	Analysis research & find figure	12	Naveed Mubashar
		1.1.3	Deliverable: Submit initial report	7	Naveed Mubashar
		1.1.4	Project signed/Approval	14	Naveed Mubashar
	1.2 Planning	1.2.1	Define Scope Statement	21	Naveed
		1.2.2	Determine project team & responsibilities	14	Mubashar Naveed
		1.2.3	Develop project plan	5	Mubashar
		1.2.4	Submit project plan	3	Naveed
		1.2.5	Project plan Approval	18	Mubashar Naveed
	1.3 Execution	1.3.1	Gather requirement	28	Naveed Mubashar
		1.3.2	Verify & validate requirement	15	Mubashar
		1.3.3	System Design	20	Mubashar
		1.3.4	Testing Phase Test case Test plan	40	Naveed
		1.3.5	Implementation		Naveed
	1.4 Close	1.4.1	Update Records		Mubashar
		1.4.2	Effectiveness of change		Naveed

1.10 Gantt Chart



Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

Introduction

2.1.1. Purpose

We are making a website to solve above mentioned problems and providing solution to our customer to search mobile phones on different nearby shops, their prices, new upcoming mobile notifications with estimated prices, shops details, Repairing Guidance, selling new, sell old mobiles using bidding and their accessories. It will be simple and easy to use. People are able to grow their businesses quite profitably through their websites. Website has become powerful tool for business because it gives owners the opportunity to promote their products and services with less investment.

2.1.2. Product Scope

This product has a great feature scope. Online shopping internet software is developed and latter its app also is developed. This product is providing the security to customer and shopkeepers to login their id and password, so that any unnotarized cannot use your account

2.1.3. References

- https://www.whatmobile.com.pk/
- https://www.ishopping.pk/electronics/mobile-phones-tablet-pc/mobile-phones-prices- in-pakistan.html
- https://homeshopping.pk/categories/Mobile-Phones-Price-Pakistan/
- https://www.olx.com.pk/mobile-phones_c1453

2.2 Overall Description

2.2.1 Product Perspective

Our system will store the following information in our database.

Order Detail:

Type of order, Order number, Order cost, Total numbers of orders.

Customer Description/Home Addresses:

It includes customer name, address and phone number. This information may be used for keeping the records of the customers for any emergency or for any other kind of information.

2.2.2 Product Functions

The following list of function descriptions explains the major features.

Account Registration

The registration function shall allow users to create secure accounts. The account will track the user's name, address and password.

Account Login

The account login function shall allow account members to enter their username and password.

Add to Shopping Cart

Add to shopping cart function shall allow users to temporarily save orders in a list that are being considered for purchase.

Delete from Shopping Cart

The delete from shopping cart function shall remove any unwanted items from the cart.

Order

Users/Account members will able to buy their products by giving an order.

Checkout

Purchases will be in cash on delivery.

Update Account Information

The update account information function shall give account inventory access to edit their stored information.

Account Logout

The account Logout function shall allow account members to edit their account for security purposes.

2.2.3 User Classes and Characteristics

The system comprises of a major module and their duty modules as follows.

Admin Login

- Take Order
- Add/Remove products
- Add products
- Update Inventory
- Total Earnings

Shopkeepers

- Add product
- Remove product
- Buy product
- Sell product

Customer Login

- Place an Order
- Bill Payment
- Select product
- Buy Product
- Sell product

2.2.4 Operating Environment

Operating environment for the café management system is as listed below.

- Client/Server System
- Operating system: Android smart phones and tablets
- Database: SQL Server
- Platform: HTML3, CSS3, JAVASCRIPT and PHP

2.2.5 Design and Implementation Constraints

We should follow the IEEE standards.

Default Language will be English.

Project will follow all the copyright and cyber laws of PTA (Pakistan Telecommunication Authority).

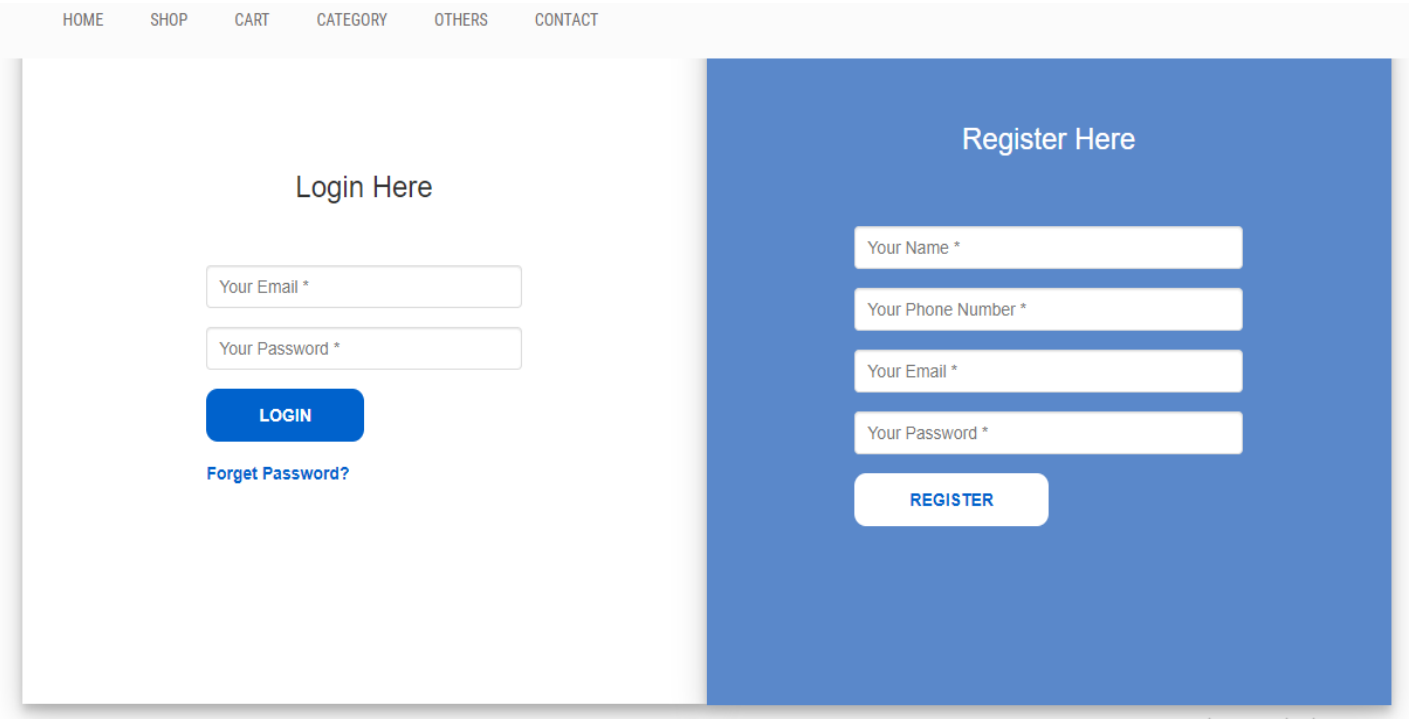
2.2.6 User Documentation

Our website is simple and reliable for every user. We provide a complete guide line in the application in the form of video so that user can successfully login to server as well as we also give the user hint and show them a pop-up message to that they see the message and put right information in the database. We will provide some video of our we where users can see how they can use our website and the help of video user can easily use our website. And user learns how they use our application and get full benefit of from this website.

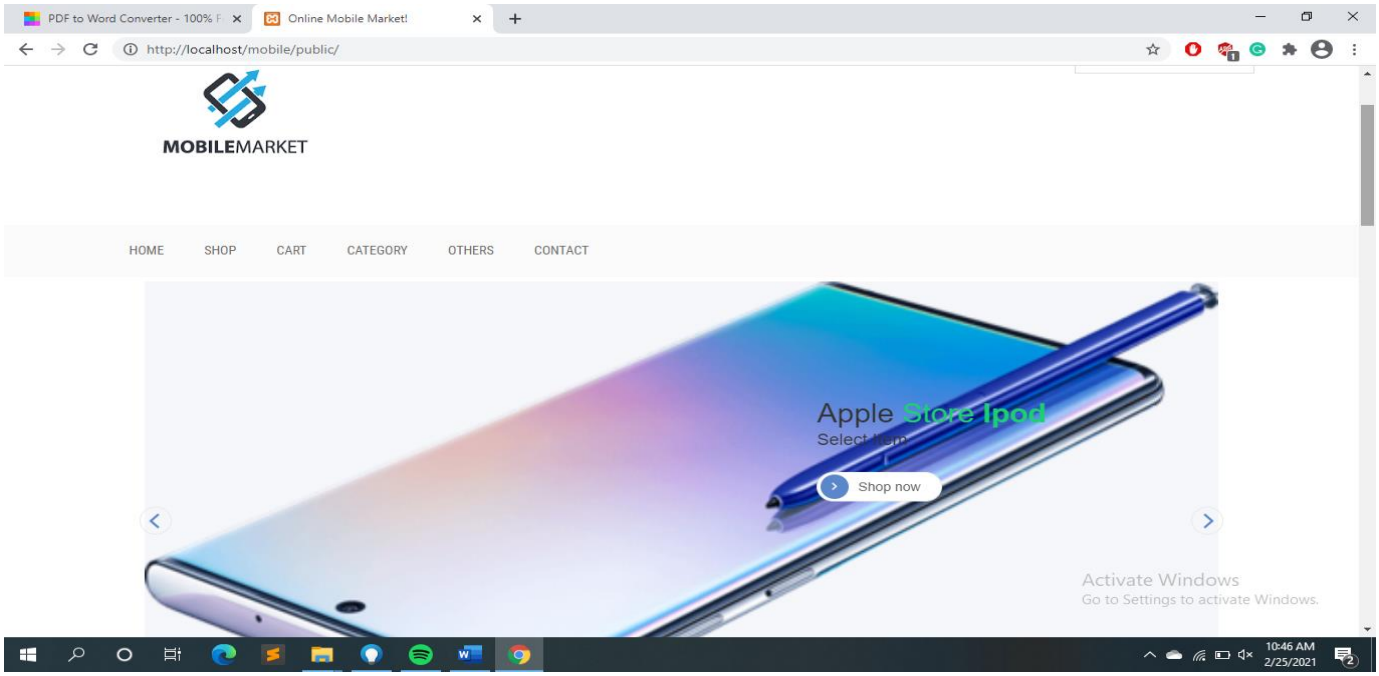
2.2.7 Assumptions and Dependencies

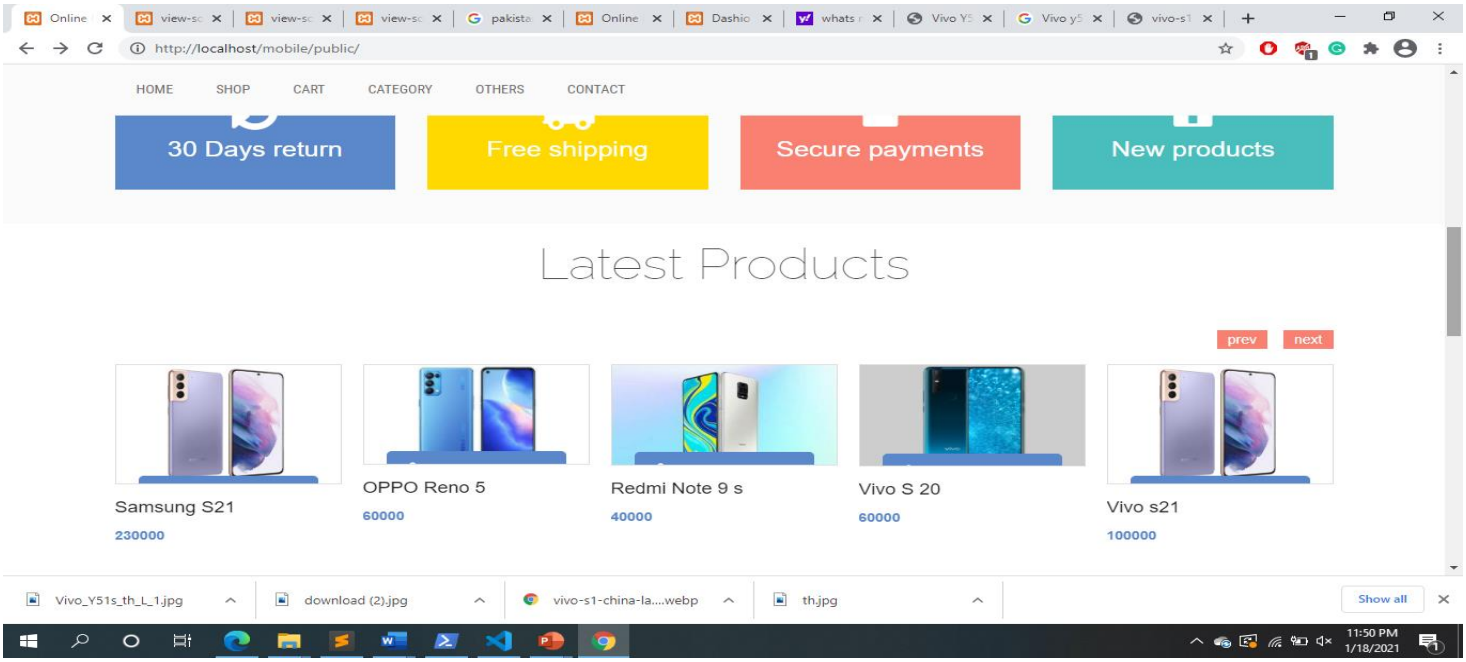
The coding should be error free; the system should be user-friendly so that it is easy to use for the users. The information of all users must be stored in a database that is accessible by the app. The system should have more storage capacity and provide fast access to the database. The system should provide search facility. The app is running 24 hours a day. The information of all the users must be stored in a database that is accessible by the, university bus transport system. We hope this website full fill all the customer.

2.2.8 External Interface Requirements



2.2.9 User Interfaces

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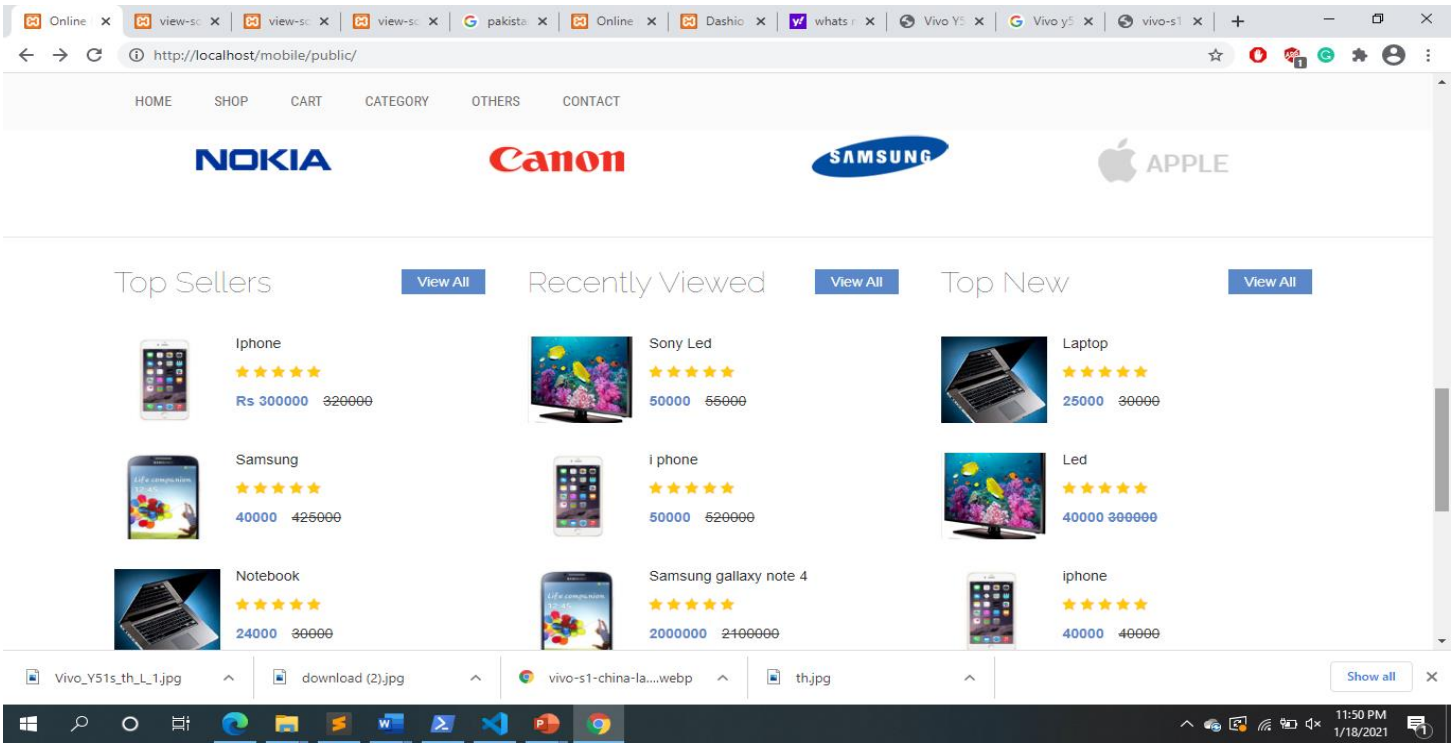
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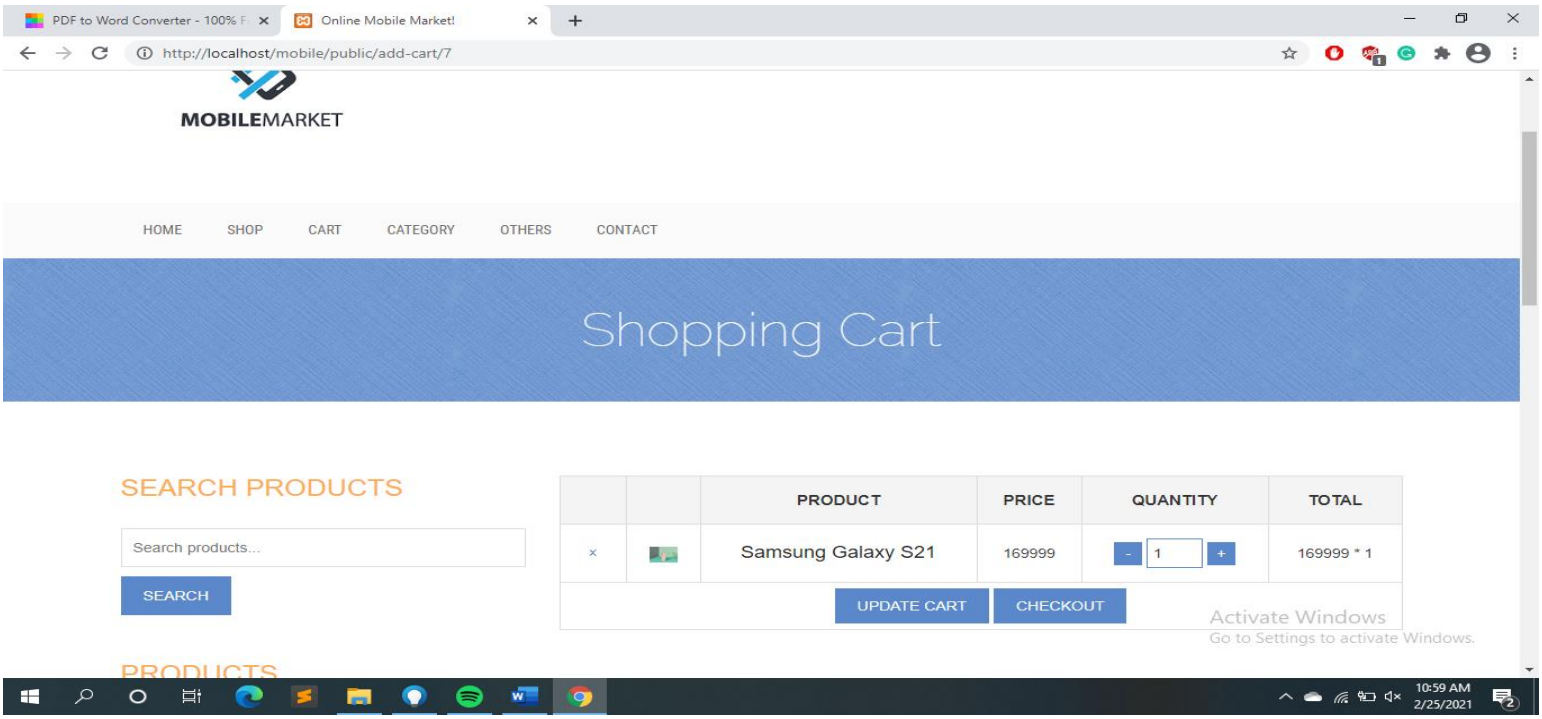


2.2.10 Hardware Interfaces

Android phones/Tablets, laptop, computer: Must be an and operating system platform.

2.2.11Software Interfaces

Operating System: Android OS

Development Tool: Visual Studio, Java, Sublime Text

Database: HTML3, CSS3, JAVASCRIPT, PHP

.

2.2.12 Communications Interfaces

This project supports the laptop Android Operating system environment.

The protocol used shall be HTTP and TCP.

2.3 System Features

2.3.1 System Feature 1

2.3.2Description and Priority

Our system will maintain information of different Users, their orders. This project has high priority. We will be making web application that will guide the way to our delivery menu by using Dijkstra Algorithm they will able to deliver.

2.3.3Stimulus/Response Sequences

Click "Register" Button: Account

Registration

1) The system shall allow a non-registered user to create a secure account.
2) The system shall require the following information for the user details.
3) The system shall ask the user for a username and password.
4) The system shall confirm the username and password the database.
5) The system shall store the information in the database.

Click "Login" Button: Account Login

1) The system shall allow a registered user to login their account.
2) The system shall require a username and password for user.
3) The system will verify the username and password in database then "logged-in".

Click "Add to Shopping Cart" Button: Add to Shopping Cart

1) The system shall allow a registered and logged-in user to temporarily save offers their being considered for purchase into a list associated with their account.
2) When viewing the shopping cart list, the system shall display the total price of their products in the cart.

2.3.4 Functional Requirements

- Admin Login
- Shopkeeper Login
- Customer Login

2.4 System Feature 2

Admin can access the whole system. He can update & delete items.

2.4.1 Description and Priority

Admin can login & after logged-in. He can add other admin, He can add new items into website, He can also update & delete items as well. He can add new categories & he can delete them as well.

2.4.2 Stimulus/Response Sequences

Click "Login" Button: Account Login

1) The system shall allow an admin to log-in.
2) The system shall require a username & id.
3) The system will verify the username and id, and the admin will be considered "logged-in".

Click "Exist Subadmin" Button: For add &remove admin

1) The system shall allow registered admin to add new admin.
2) The system shall allow registered admin to delete registered admin.
3) The system shall require the following information from the user: Name, Id.
4) The system shall ask the admin username and id.
5) The system shall confirm the username and id which is acceptable.
6) The system shall store the information in the database.

Click "Categories" Button: Add & Remove Categories

1) The system shall allow an admin to add categories.
2) The system shall require a username &id to add & remove categories.
3) The system shall allow an admin to remove categories.

Click "Add Products" Button: To Add Products

The system shall require a username & id to add products.

Click "Edit/Delete" Button: To Edit or Delete Products

The system shall require a username to edit or delete products.

2.4.3 Functional Requirements

"Login" to account log-in.

"Admin" to add & remove shopkeepers.

"Categories" Button for adding & removing items.

Click "Add Products" For adding new products.

Click "Edit/Delete" Button: To edit or delete products

2.5 Other Nonfunctional Requirements

2.5.1 Performance Requirements

Some quality attributes that can be performed by every application are.

Use ability: the application easy to use and easy to learn how to operate

Portability: The software can be use in different software devices and like tablets, mobiles, IOS etc.

Flexibility: The functionality of this software can be increased after development because documentation is available.

Robustness: The software can handle many problems itself like if user forgets password so the system gives its option to re-write name and user password.

Correctness: When user search something but spellings are not right the system search related to that spelling or give auto-complete search

etc.

2.5.2 Safety Requirements

Once admin delete product adds or product categories or user account the data of that product add can't be retrieve. To handle this problem system gives warning before delete the product.

If any user has some problem while using the site, so he can contact via mail to website maintainers

2.5.3 Security Requirements

Security systems need database storage just like many other websites. However, the special requirements of the security market mean that vendors must choose their database partner carefully

2.5.4Software Quality Attributes

Security systems need database storage just like many other websites. However, the special requirements of the security market mean that vendors must choose their database partner carefully

2. 5.5 Business Rules

If user want to order product than he has to first sign up.

Website will not responsible for damage of any Product.

User has to follow terms and conditions of website.

If anything is buy then only things can be replaced with other.

Chapter 3

Use Case Analysis

Chapter 3: System Analysis

This chapter describe about system use cases and how the different actors are interacting with the system. In use case main functionalities of the system are defined that are divided in different modules e.g., major use case in which all functionalities of the system are defined is divide into admin, user and shopkeeper's module and each actor interacting with module and performing his module functionalities.

• Use Case Model

- **Login**
  - User should login to access the features of the system.
  - User and managers should be allowed to view and update their login information.
  - Login functionality should vary differently among user, manager and administrator.
- **Forget Password**

If user forgets his/her password, they would be directed to a page to enter a security pin assigned to them upon registration.

Variables	Constraints
User_Roll_Number	Char/String length==13
User_name	Char/String (min>=3 && max <=25)
User_contact_number	Integer (length==11)
User_address	Char/String(min>=10 && max <=50)
Password	Char/String(min>=3 && max <=15)
Admin_id	Char/String length==8

Password	Char/String(min>=3 && max <=15)
Manager_id	Char/String length==8
Password	Char/String (min>=3 && max <=15)
Security_Pin	Integer (Length==5)

- **Add User and Shopkeeper**
    - Should contain an adding user functionality so that admin may add new user in a sorted manner whenever new hiring done.
    - Manager should first ask the administrators permission before adding the new Customer and shopkeeper.
    - Once the request is approved, then the manager should proceed to his liking.
    - Both Managers and Admin should be able to view user from product page after adding.

Variables	Constraints
User_id	Char/String length==13
User_name	Char/String (min>=3 && max <=25)
User_contact_number	Integer (length==11)
User_address	Char/String(min>=10 && max <=50)
Password	Char/String(min>=3 && max <=15)

- **Update/Delete customer and shopkeeper**
    - Should contain an updating and deleting user functionality in a sorted manner so that admin may update or delete old user whenever needed.
    - Manager should first ask the administrators permission before updating or deleting the users.
    - Once the request is approved, then the manager should proceed to his liking

Variables	Constraints
Shopkeeper id	Char/String length==13
shopkeeper_name	Char/String (min>=3 && max <=25)
shopkeeper_contact_number	Integer (length==11)
shopkeeper_address	Char/String(min>=10 && max <=50)

CNIC	Char/String length==13
Designation	Char/String (min>=3 && max <=25)
customer_id	Char/String length==13
customer_name	Char/String (min>=3 && max <=25)
customer	Char/String length==13

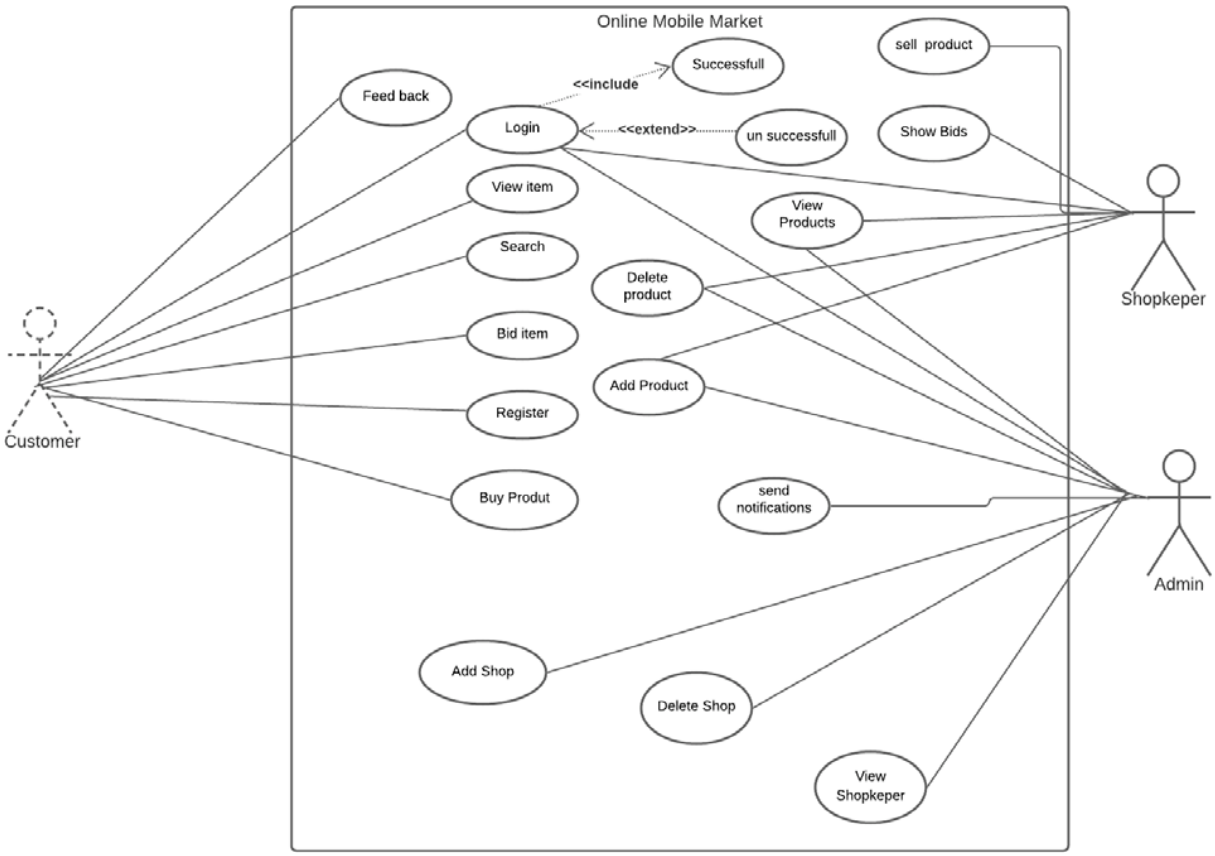
- **Manage shopkeeper**
    - Management of shopkeeper.
    - This functionality allows administrators to view all shopkeeper.
    - This functionality allows administrators to add new shopkeeper and customer.
    - This functionality allows administrators to update their shopkeeper records.
    - This functionality allows administrators to delete their shopkeeper records.

Variables	Constraints
shopkeeper_id	Char/String (min>=5 && max <=15)
shopkeeper_name	Char/String (min>=3 && max <=25)
Password	Char/String(min>=3 && max <=15)
Rank	Char/String (min>=3 && max <=6)

- **Check Reports**
    - Reports maintenance.
    - Proper maintenance of reports will be conducted.
    - All in and out that a shopkeeperor user made per day shall be recorded.
    - Report of shopkeeper in and out per day will be generated.
    - Both Manager and Admin will view reports.

Variables	Constraints
shopkeeper	Integer
Users	Integer

Fully Dressed use cases



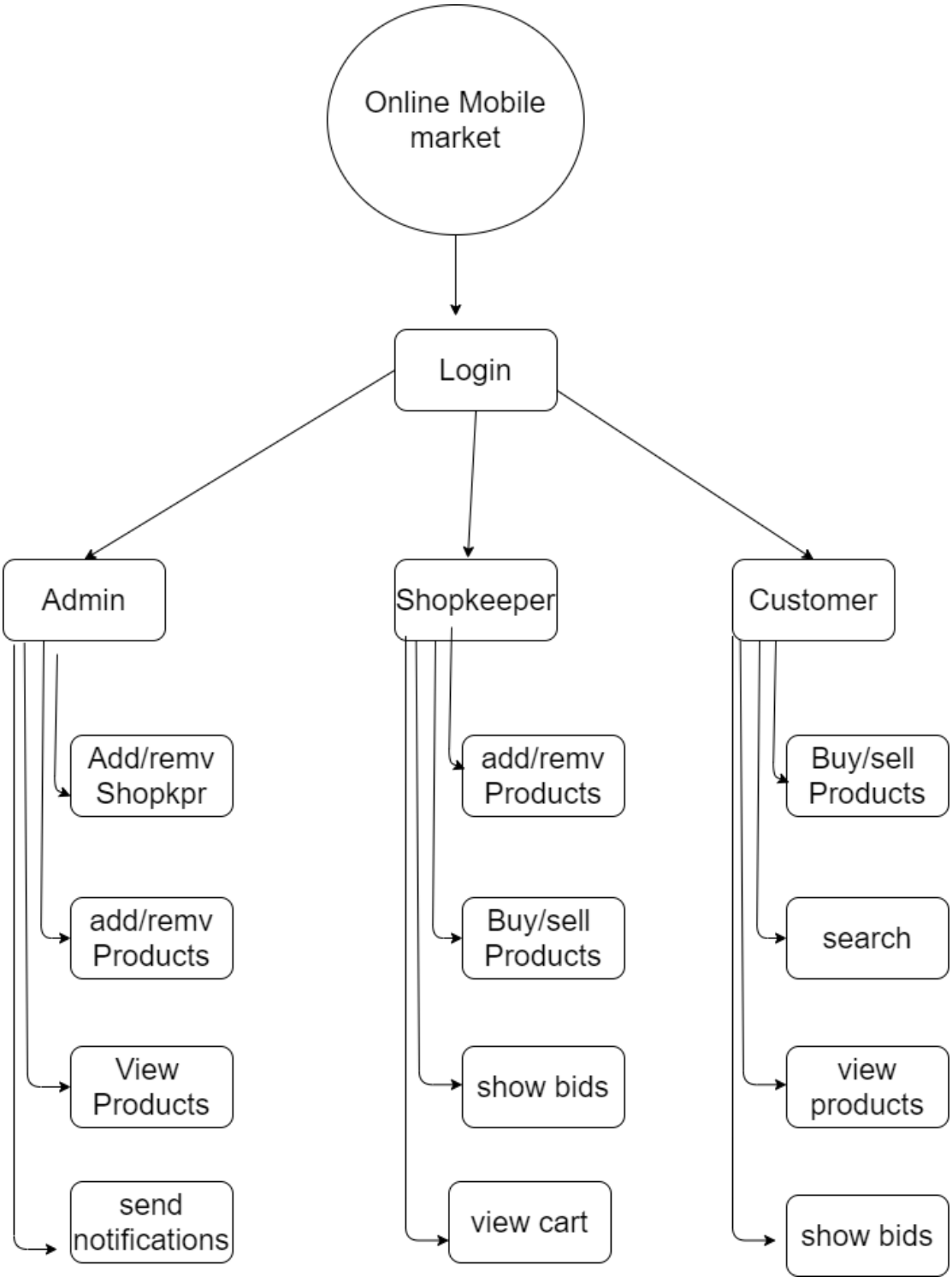
Chapter 4

System Design

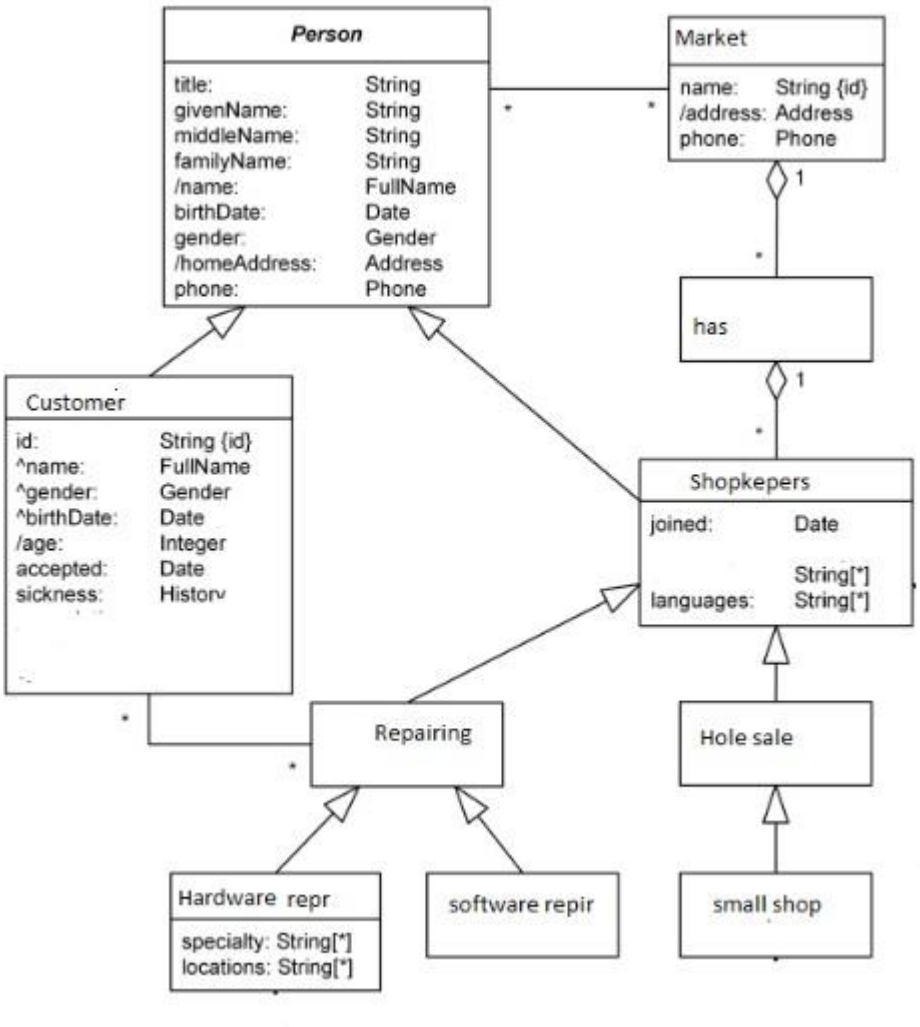
Chapter 4: System Design

This chapter describes the diagrams and tools that system used. This whole system has Architecture for the website to delivery of most of the resources. This website will need connections to the internet for accessing the whole receivers

4.1. Architecture Diagram

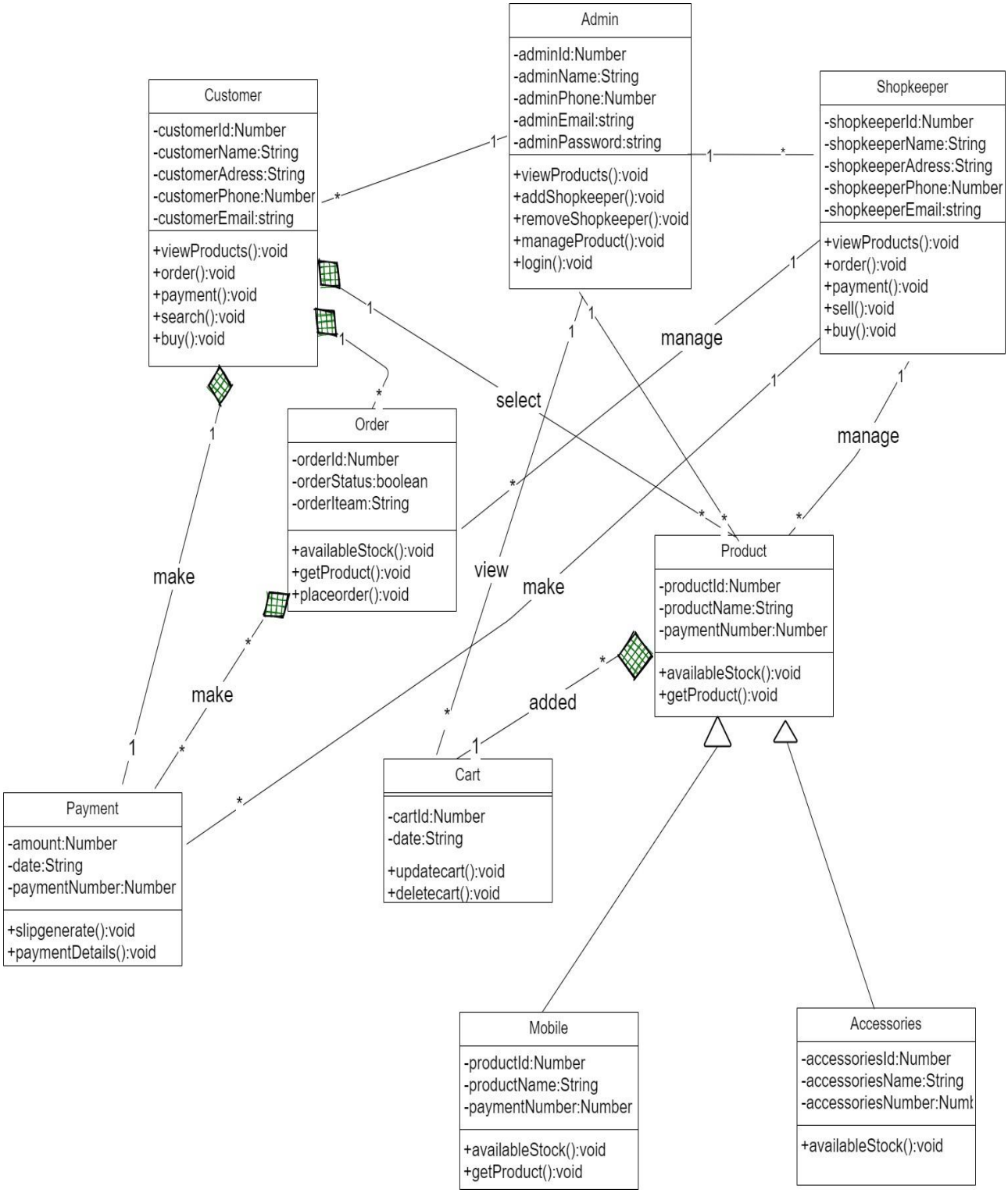


4.2. Domain Model

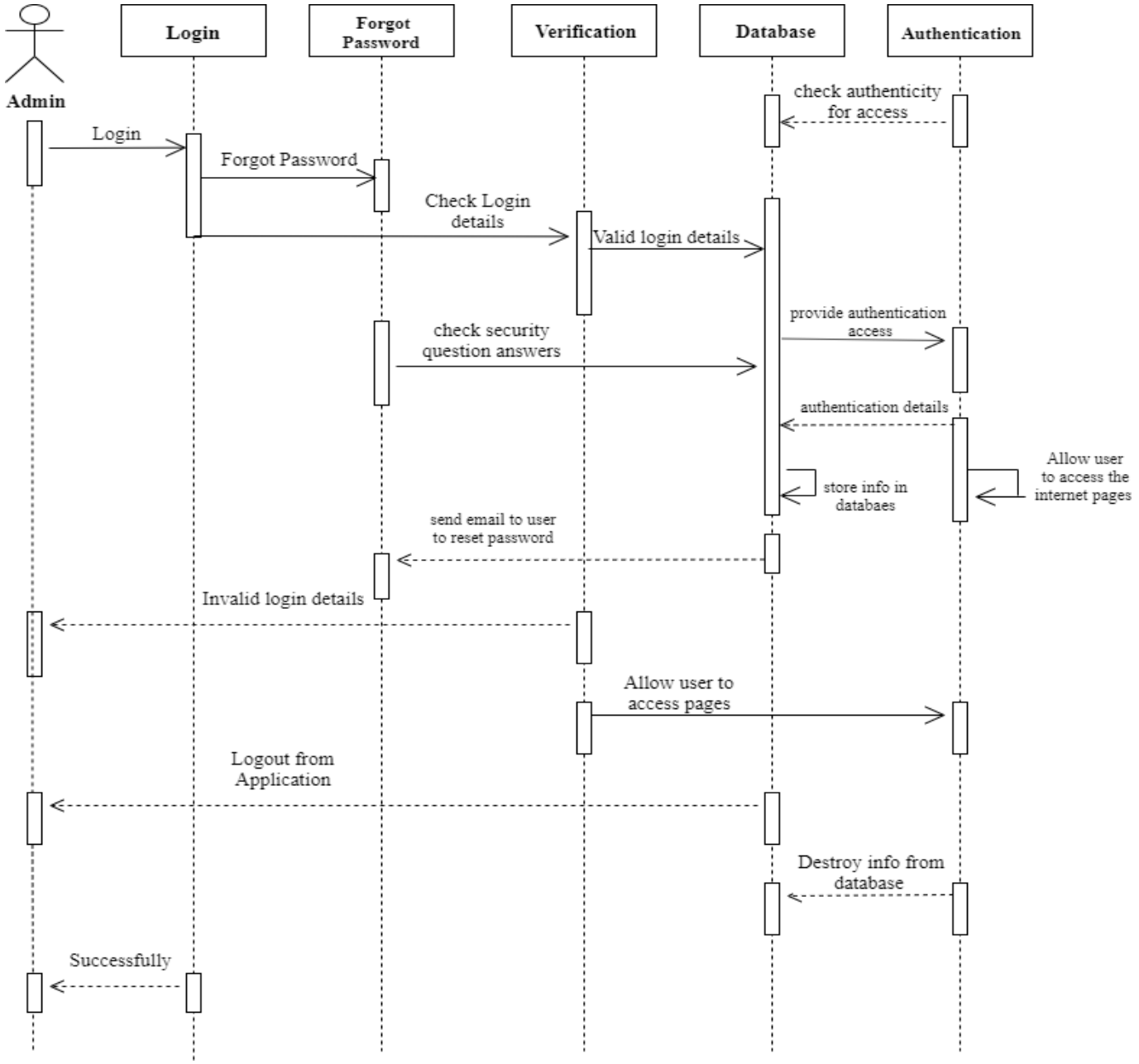


4.3. Entity Relationship Diagram with data dictionary

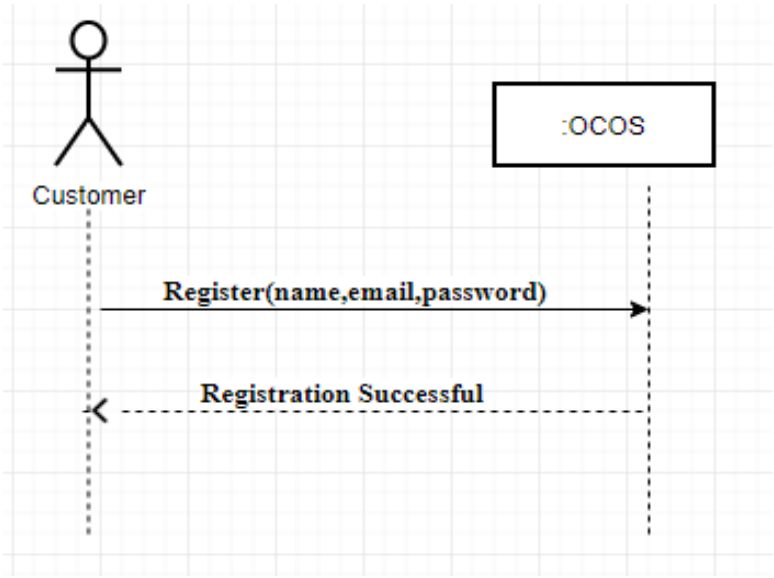
4.4. Class Diagram



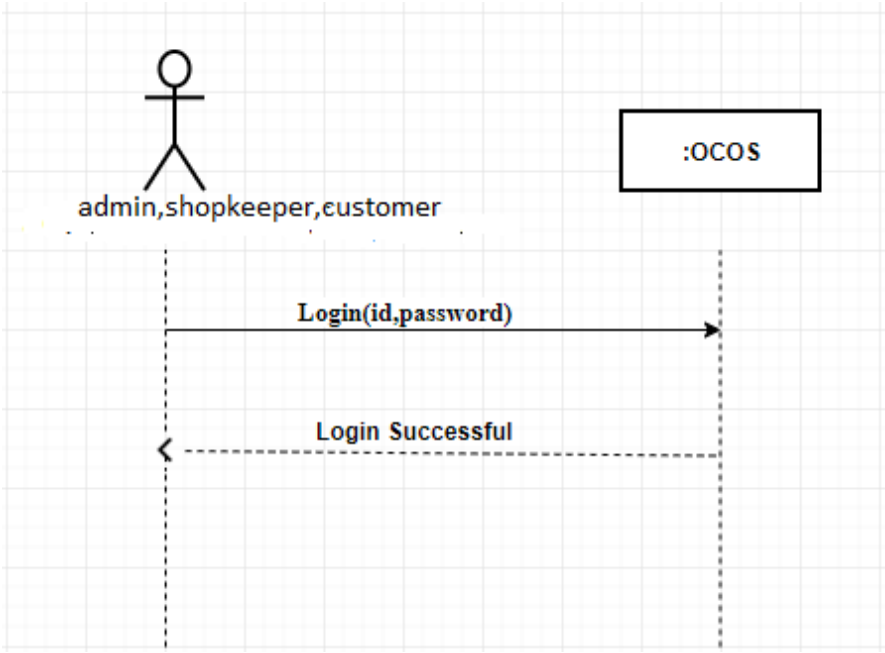
4.5. Sequence / Collaboration Diagram



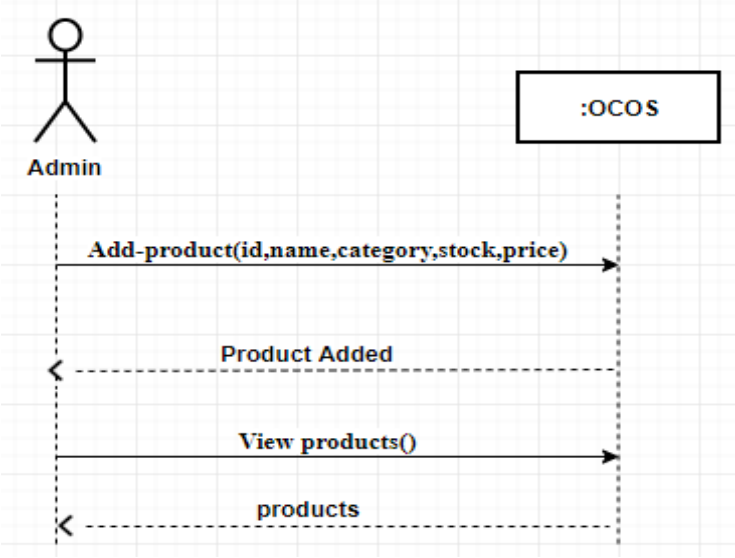
System Sequence Diagram 1.0



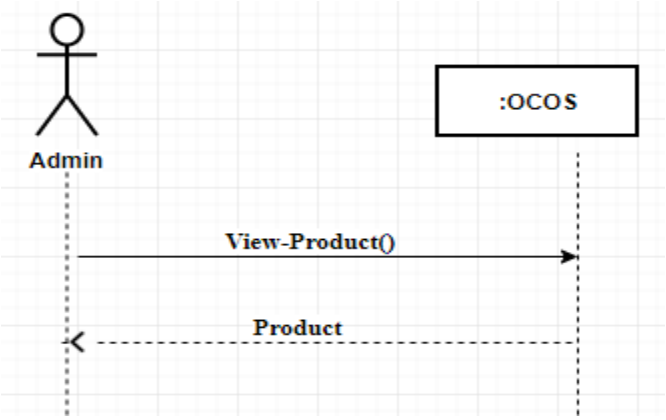
System Sequence Diagram 2.0



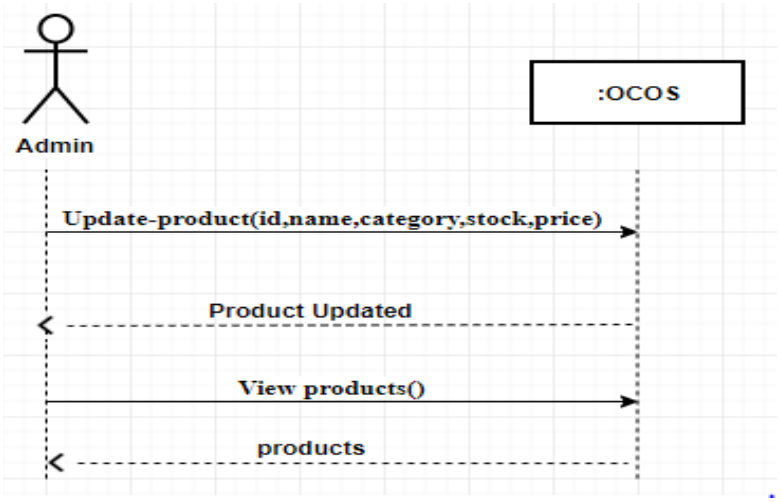
System Sequence Diagram 3.0



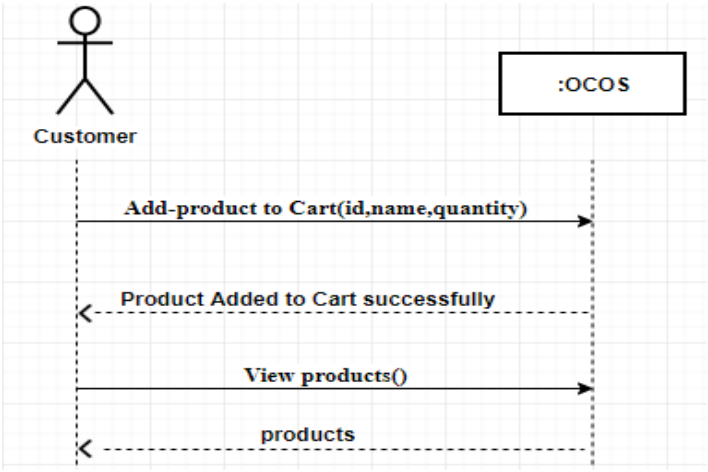
System Sequence Diagram 4.0



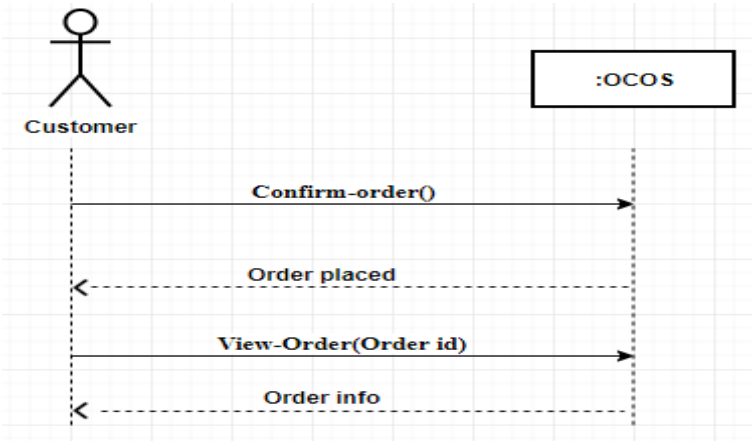
System Sequence Diagram 5.0



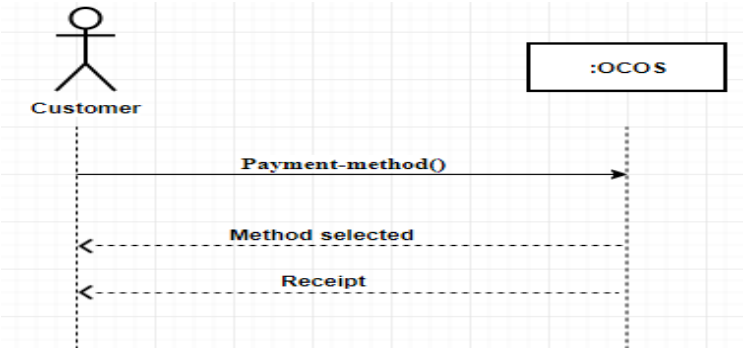
System Sequence Diagram 6.0



System Sequence Diagram 7.0



System Sequence Diagram 8.0



- **Operation contracts**
- **OC: 01**

Headings	Sub-Headings	
Operations		Register( )
Cross-Reference	Use-Case	Customer, Shopkeeper
	Scenario	Registration
Pre-Conditions		N/A
Post-Conditions	Instantiation	An instance “A” of Account was created. An instance “C” of Customer was created.
	Attribute Modification	A.Id becomes ID. A.Name becomes Name. A.Address becomes Address. A.CNIC becomes CNIC.
	Association	A was associated with Customer/parents.

-

OC: 02

Headings	Sub-Headings	
Operations		View product ()
Cross-Reference	Use-Case	Customer, Shopkeeper
	Scenario	View product
Pre-Conditions		Users must be logged in, to access
Post-Conditions	Instantiation	An instance “C” Customer Profile was created. An instance “S of shopkeeper was created. An instance “A” of Admin was created.
	Attribute Modification	N/A
	Association	C was associated with Customer. A was associated with Admin. S was associated with shopkeeper.

OC: 03

Headings	Sub-Headings	
rOperations		Update Product( )
Cross-Reference	Use-Case	Shopkeper, admin
	Scenario	Update Profile
Pre-Conditions		Shopkeeper must log in to update the product
Post-Conditions	Instantiation	An instance “C” of customer was created. An instance “s” of shopkeeperwas created. An instance “A” of Admin was created.
	Attribute Modification	P.Id becomes ID. P.Name becomes Name. P.Address becomes Address. P.CNIC becomes CNIC.
	Association	P was associated with Admin. P was associated with Customer. P was associated with shopkeeper

OC: 04

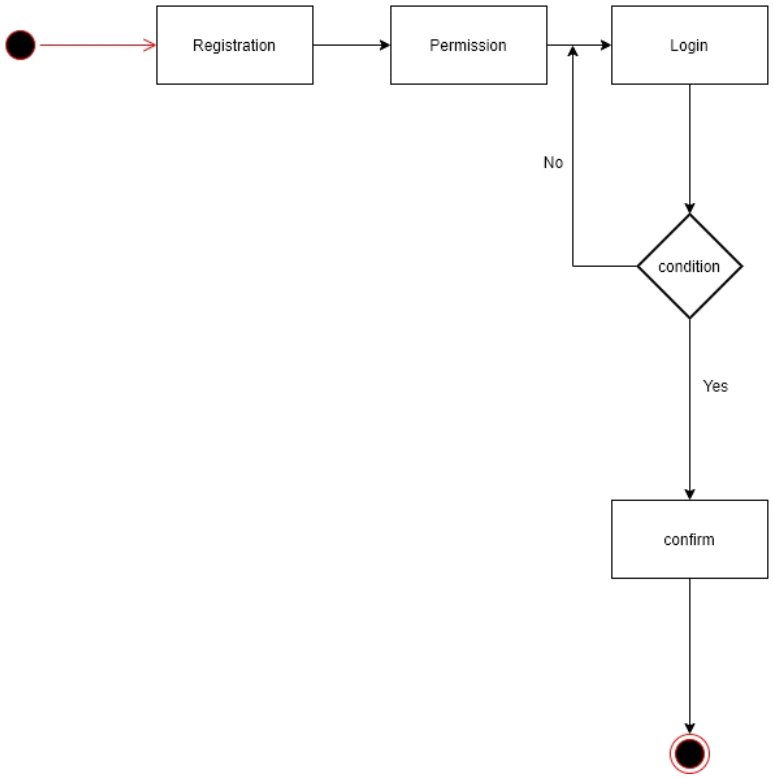
Headings	Sub-Headings	
Operations		Login( )
Cross-Reference	Use-Case	Reg customer shopkeeper
	Scenario	Login
Pre-Conditions		N/A
Post-Conditions	Instantiation	An instance “U” of Account was created. An instance “s” of shopkeeper was created. An instance “A” of Admin was created.
	Attribute Modification	A.Id becomes ID. A.UW becomes AW
	Association	A was associated with Admin. A was associated with customer A was associated with shopkeeper

OC: 05

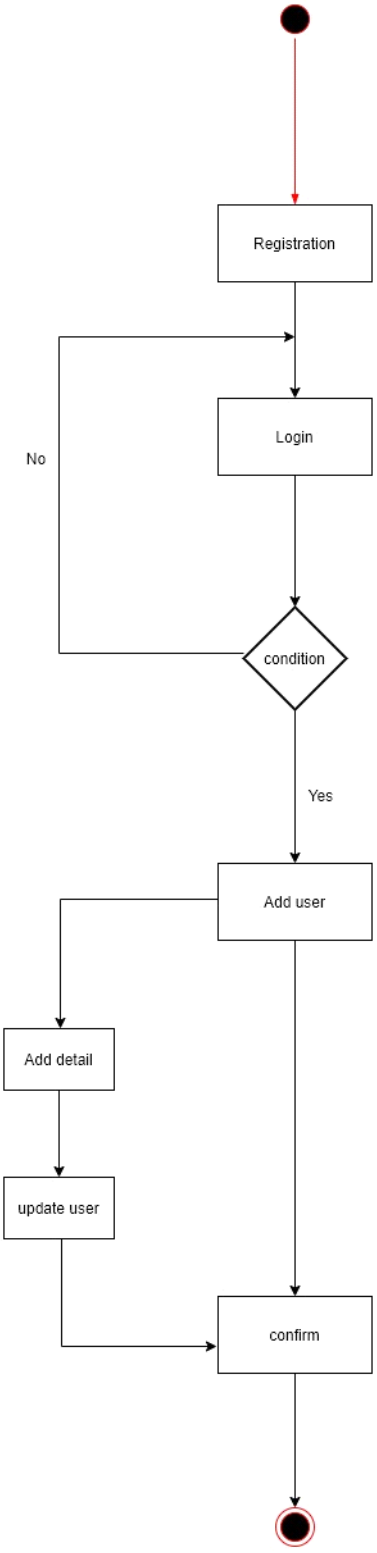
Headings	Sub-Headings	
Operations		Add product()
Cross-Reference	Use-Case	Shopkeeper, admin
	Scenario	Add product
Pre-Conditions		Admin should be logged into the system
Post-Conditions	Instantiation	An instance “C” of customer was created. An instance “S” ofshopkeeper was created.
	Attribute Modification	U.id becomes id. U.name becomes name.
	Association	D was associated with Admin.

4.6. Activity Diagram

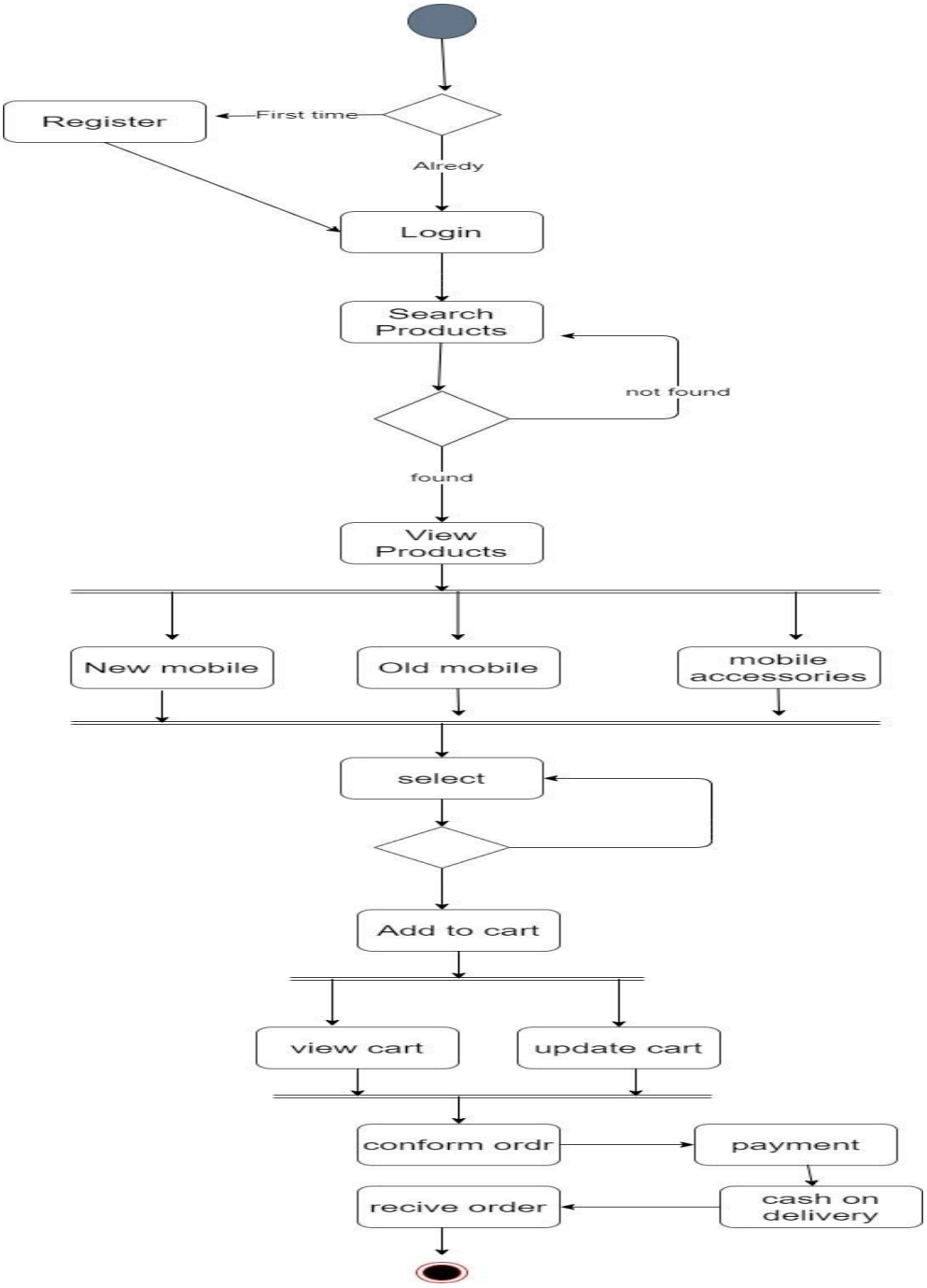
A.D 1



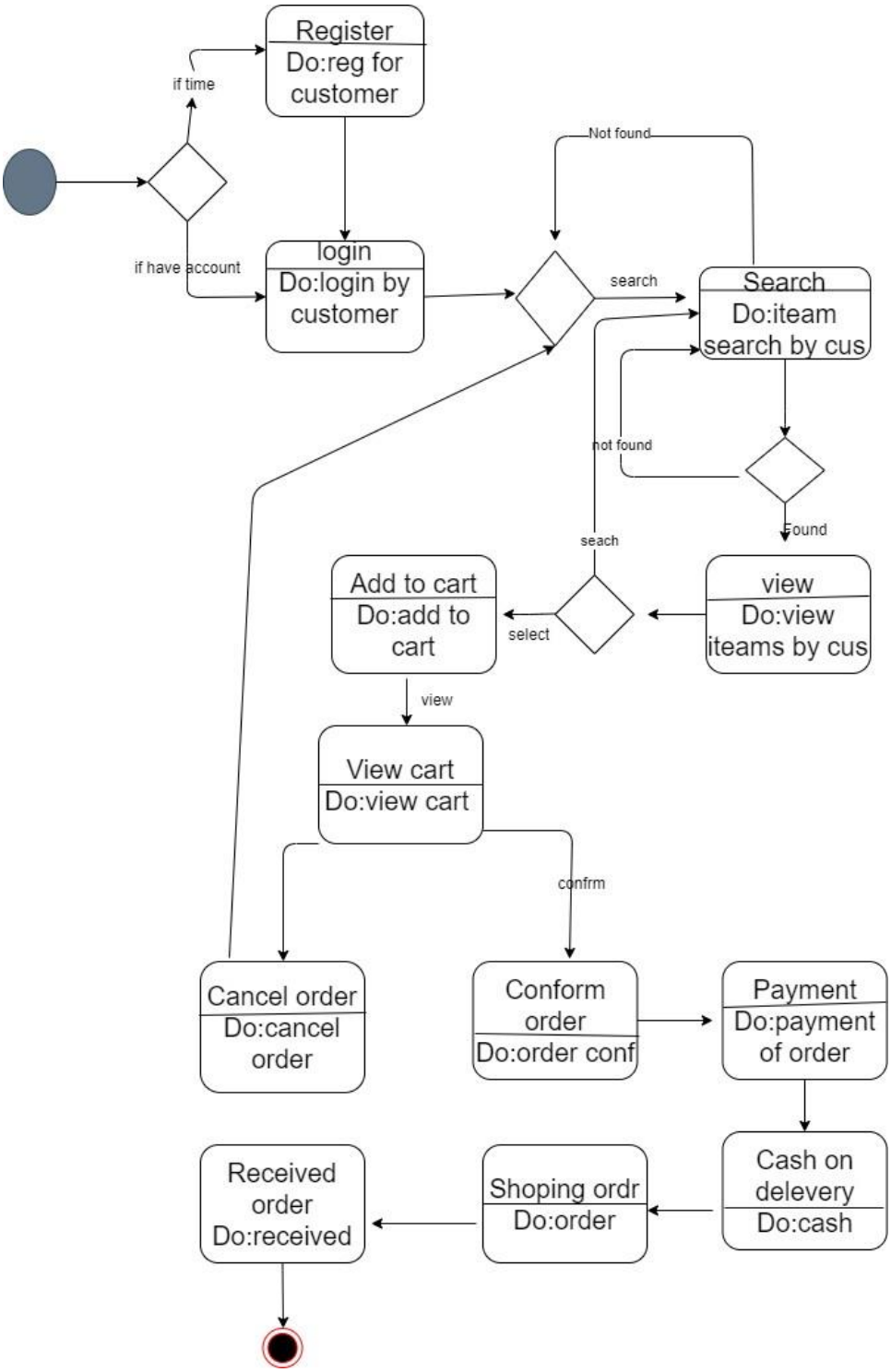
A.D 2


Registration
Login
No
condition
Yes
Add user
Add detail
update user
confirm

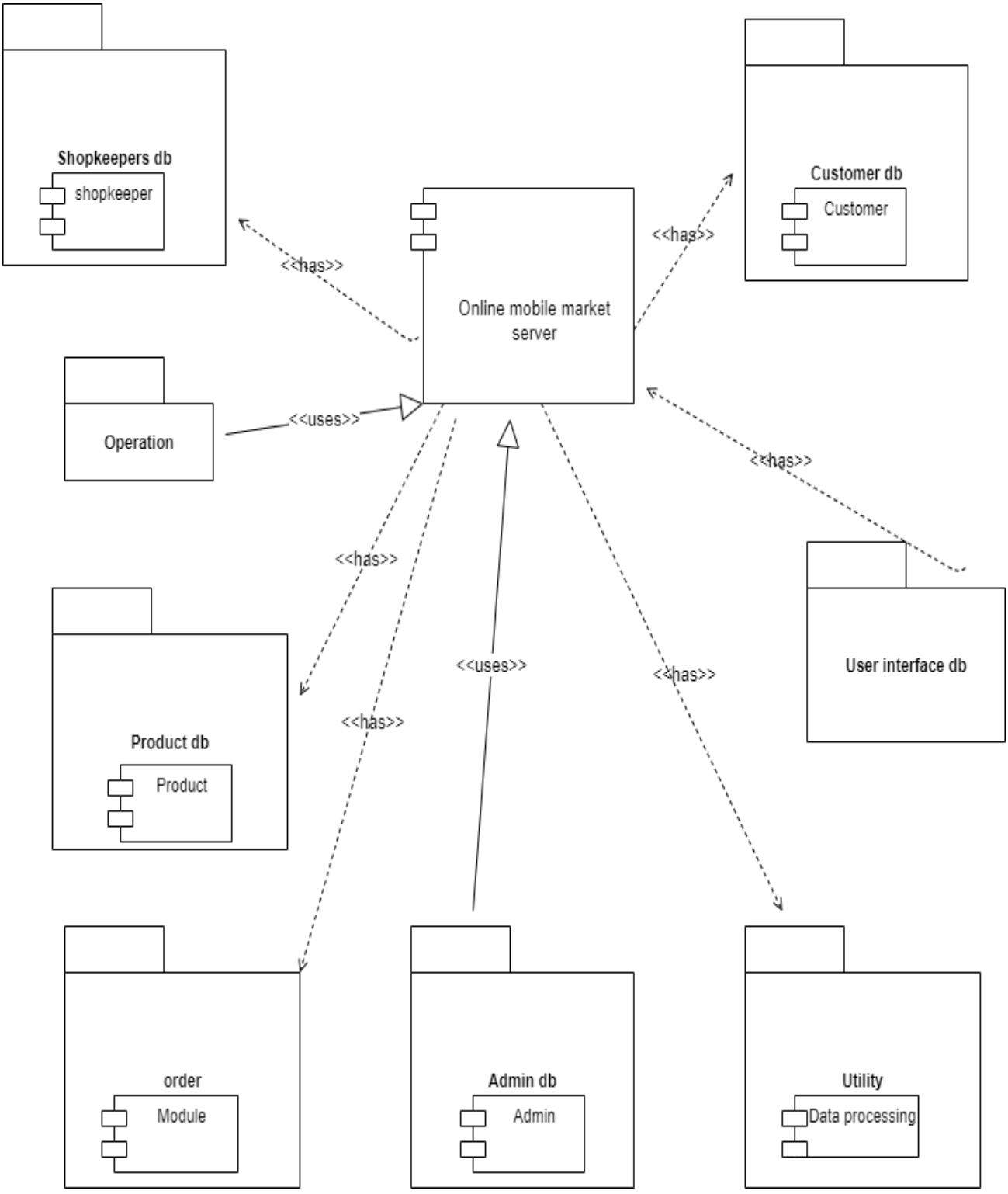
AD


Register
First time
Alredy
Login
Search Products
not found
found
View Products
New mobile
Old mobile
mobile accessories
select
Add to cart
view cart
update cart
conform ordr
payment
recive order
cash on delivery

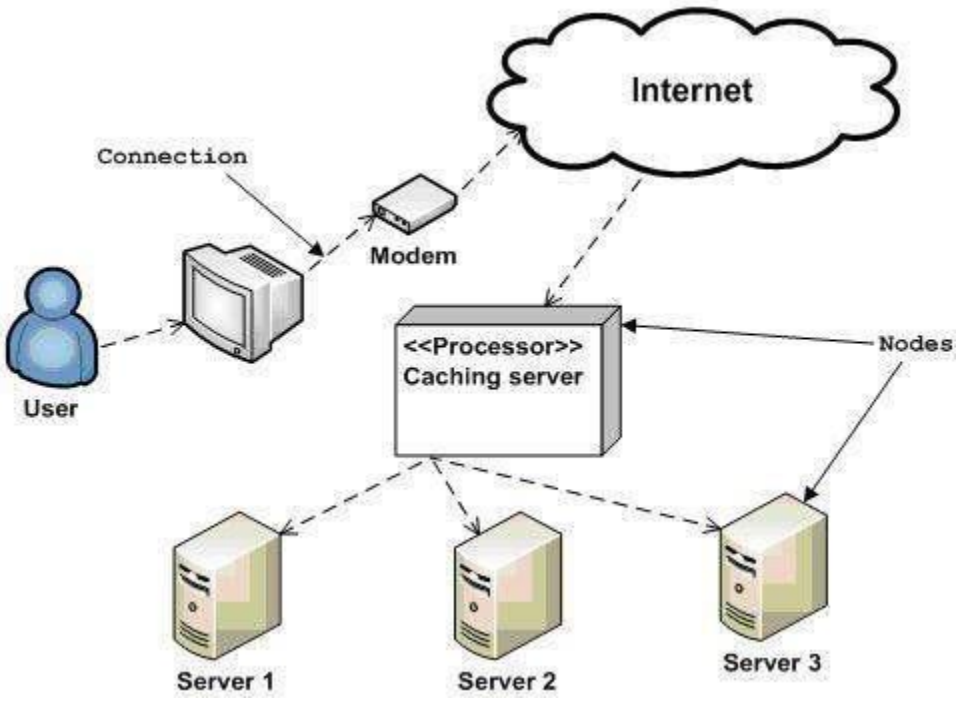
4.7. State Transition Diagram



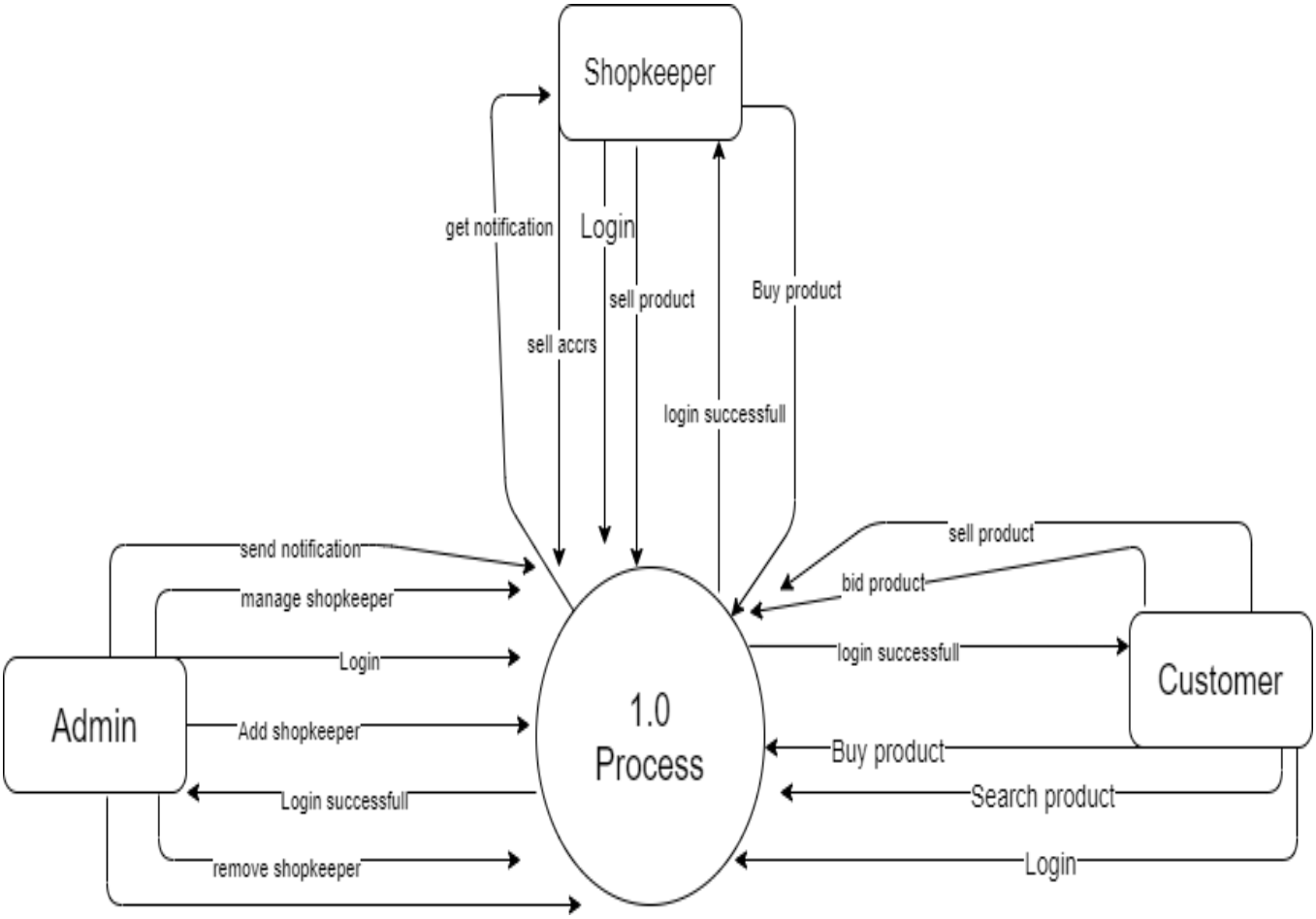
4.8. Component Diagram

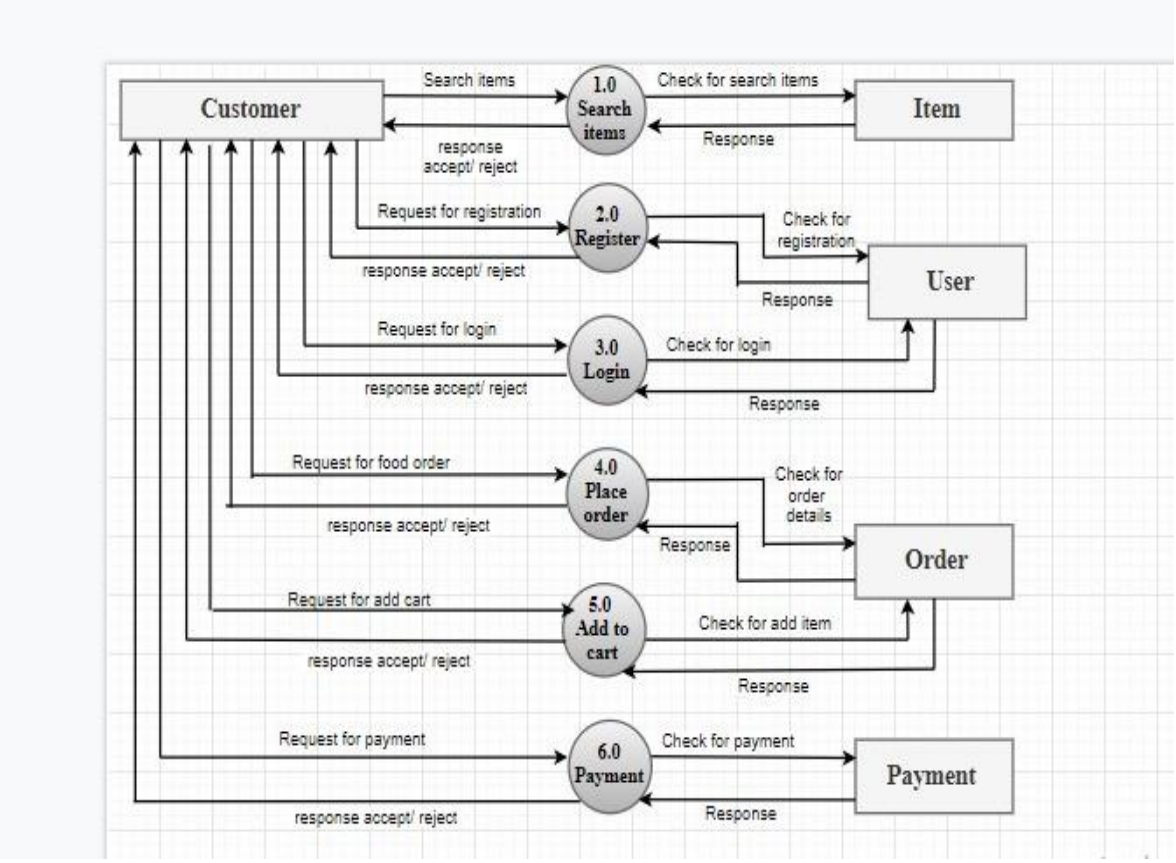


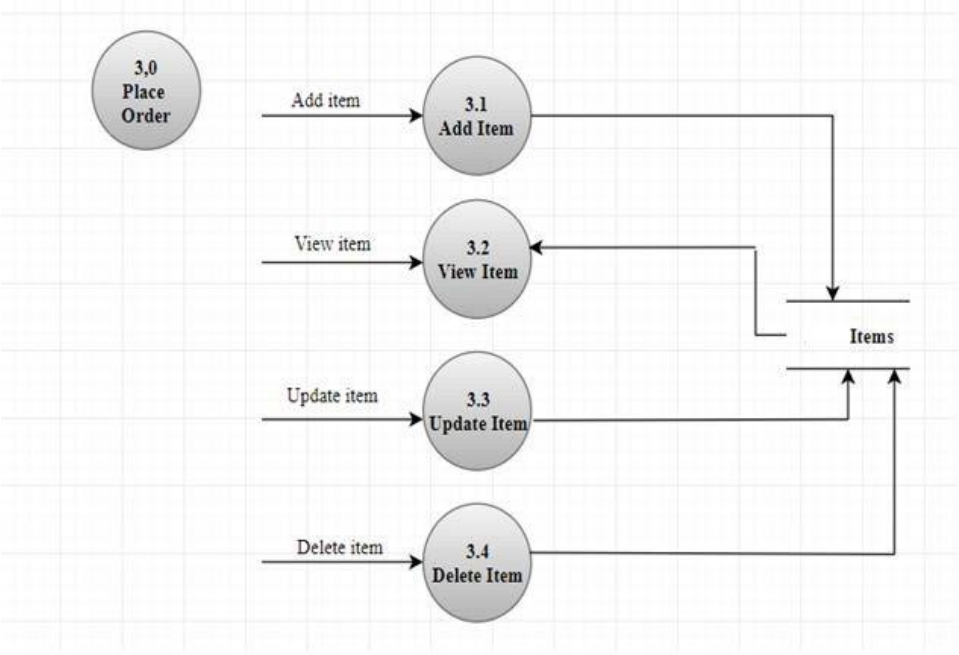
Deployment Diagram

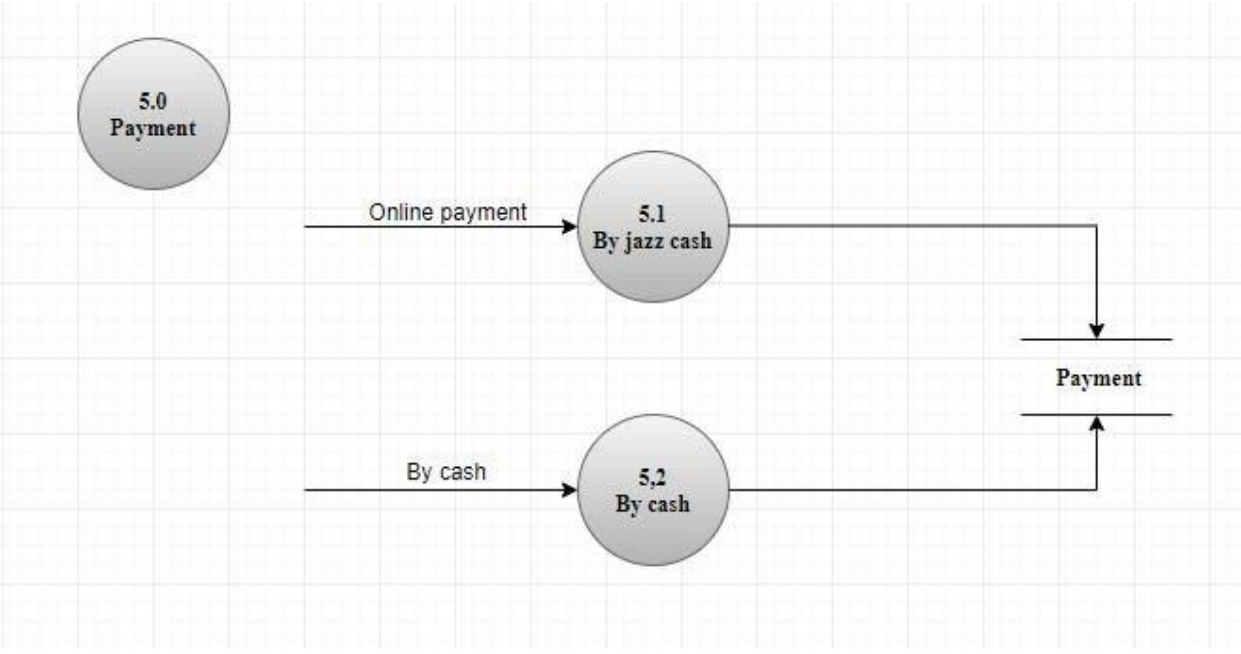


4.9. Data Flow diagram




Customer
Search items
1.0 Search items
Check for search items
Item
Response
response accept/ reject
Request for registration
2.0 Register
Check for registration
User
response accept/ reject
Response
Request for login
3.0 Login
Check for login
response accept/ reject
Response
Request for food order
4.0 Place order
Check for order details
response accept/ reject
Response
Order
Request for add cart
5.0 Add to cart
Check for add item
response accept/ reject
Response
Request for payment
6.0 Payment
Check for payment
Payment
response accept/ reject
Response


3,0
Place
Order
Add item
3.1
Add Item
View item
3.2
View Item
Items
Update item
3.3
Update Item
Delete item
3.4
Delete Item


5.0
Payment
Online payment
5.1
By jazz cash
Payment
By cash
5,2
By cash

Chapter 5
Implementation

Chapter 5: Implementation

In this chapter we discuss the implementation tools we use to implement the project. Also, defining the important flow control and standard pseudo codes, library we use while implementation of the project.

5.1. Important Flow Control/Pseudo codes

Sign in Page

- If email and password validate
- Login button enable
- If user authorize
- Login successfully
- Else
- Error message show
- Else
- Login button disable

Sign up page

- If first name, last name, date of birth, email, password, gender fill
- Enable register button
- If button click
- Register successfully
- Else
- Show about error
- Else
- Disable register button

5.2. Components, Libraries, Web Services and stubs

4. Login
5. Registration
6. Reset password
7. Add shopkeeper
8. Remove shopkeeper
9. View products
10. Manage products

5.1. Deployment Environment

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

5.2. Tools and Techniques

Subline text

Sql server

Xampp server

Html

Css

Javascript

Php

5.3. Best Practices / Coding Standards

There are four pillars of object-oriented programming are listed below which are very helpful for the reducing or reuse of program code and mostly developers use them.

- Inheritance
- Polymorphism
- Abstraction
- Encapsulation

There are some best practices coding standers which can help to understand the code of the application if we don't follow these practices or coding standers, we can't understand code after little time.

5.4. Version Control

Different websites are creating to solve the current problem of different people. So different developer develops different application to solve different problem. In Version control we change features of application in demand of different Users. This is our first version of application. After launching in market and after getting user feedback we create changes day by day on user demand.

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

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[*Between 4 to 8 lines describe what is this chapter all about*]

6.1. Use Case Testing

UCT: 01

Use case Name	Customer	
Scope	User uses it to register himself into the site	
Primary Actors	customer	
Stakeholders and Interests	Users: users uses it to register on the site.	
Pre-Conditions	N/A	
Post-Conditions	After registration parents is able to use online mobile market functionalities and search products, buy and sell .	
Main Scenario	• Users opens web. • User selects Signup option • User enters all required information. • User registers into the system.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem or adding already existing information for registration.	Alternative Case The alternative would be to add non existing information.
Frequency of Occurrence	If discussed per day, User can use this functionality only once in a lifetime.	

UCT: 02

Use Case Name	Login
Scope	Users use it to log in to the site
Primary Actors	Reg customer, Admin, shopkeeper
Stakeholders and Interests	customer: customer uses it to login to the site. Admin: Admin uses it to login to the site. shopkeeper: shopkeeper uses it to the site.
Pre-Conditions	N/A

Post-Conditions	After logging in, all users can perform their specified operations	
Main Scenario	• Users open web • Select Sign-in option. • User logs into the web. • Admin logs into the web. • shpkeep logs into the web.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem or if a different link is set up instead of the login page.	Alternative Case Forget Password
Frequency of Occurrence	If discussed per day admin and manager uses this functionality to login countless times.	

UCT: 03

Use case Name	View Product	
Scope	Users use it to view their profile	
Primary Actors	Customer, Admin,shopkeeper	
Stakeholders and Interests	Users: User uses it to register on the system and view profile.	
Pre-Conditions	Users must be logged in, to access their profile	
Post-Conditions	After viewing profile, users perform required tasks.	
Main Scenario	• Users open web. • Select view product option. • View their products.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem.	Alternative Case
Frequency of Occurrence	If discussed per day, Users can use this functionality countless times.	

UCT: 04

Use case Name	Update product
Scope	Shopkeeper and admin use it to manage the product
Primary Actors	shopkeeper, Admin
Stakeholders and	

Interests		
Pre-Conditions	Shopkeeper and admin must be logged in, to access and update their	
Post-Conditions	After Updating Profile users are able to view c	
Main Scenario	• Shopkeeper open web. • Shopkeeper log into the • Select view option. • Select Update product option. • Update product. • Select confirm option.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem or another link set up instead of Update Profile Page.	Alternative Case
Frequency of Occurrence	If discussed per day, Customer can use this functionality	

UCT: 05

Use Case Name	**Add/delete product**	
Scope	add/delete	
Primary Actors	Shopkeeper, Admin	
Stakeholders and interests	Admin: Admin permits the manager to add/delete new customer and shopkeeper to the system.	
Pre-Conditions	should be logged in to the web	
Post-Conditions	After add/deleteadmin is able to update or delete them if required.	
Main Scenario	• Admin shopkeeper opens app. • Admin shopkeeper logs in to the app • Selects add/delete product option. • Add/delete new product • Views the add/delete.	
Failure Case/ Alternative Case	Failure If the functionality fails it	Alternative

	would be due to network problem or if a different link is set up instead of the add product page.	
Frequency of occurrence	If discussed per day, Manager uses this functionality to add products once.	

UCT: 07

Use Case Name	Notification alert	
Scope	Used to view notification that is shared by admin	
Primary Actors	admin	
Stakeholders and interests	Admin: admin adds new notification to web Users:	
Pre-Conditions		
Post-Conditions	After viewing notifications Users will know check in and check out status current loctaion of Bus.	
Main Scenario	• opens web • logs in to the web • Post notification. • Users can view.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem or if a different link is set up instead of the search catalogue option.	Alternative View Catalogue
Frequency of occurrence	If discussed per day, Manager uses this functionality to post notification.	

UCT: 08

UCT: 11

Use Case Name	View Products	
Scope	Used by customer and shopkeeper and admin to view all products	
Primary Actors		
Stakeholders and interests	Customer used to view product.	
Pre-Conditions	Users should be logged in to the app. admin should be logged in to the app.	
Post-Conditions	Customer can see all the products there.	
Main Scenario	• users opensweb • users logs in to the web • adminlogs in to the web • select view stops option.	
Failure Case/ Alternative Case	Failure If the functionality fails it would be due to network problem or if a different link is set up instead of the view cart option.	Alternative
Frequency of occurrence	If discussed per day, Driver and Users uses this functionality for view stops.	

6.2. Equivalence partitioning

Get register:

Name Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character	Numerical	a-z, A-Z

username Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character	Numerical	a-z, A-Z, 0-9

Email Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character	A-Z, >=10	a-z, 0-9

Password Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character <=40	>=7	a-z, A-Z, 0-9, special characters

Login:

username Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character	Numerical, >=10	a-z, A-Z, 0-9

Password Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character <=40	>=7	a-z, A-Z, 0-9, special characters

Add User

Add User Equivalence partitioning		
Invalid	invalid	Valid
.tiff, JPEG	Zip file	PNG, JPG

- **Boundary value analysis**

Email Equivalence partitioning		
Invalid	**invalid**	**Valid**
Special character	A-Z, >=10	a-z, 0-9

Password Equivalence partitioning		
invalid	**invalid**	**Valid**
Special character <=40	>=7	a-z, A-Z, 0-9, special characters

Name Equivalence partitioning		
invalid	**invalid**	**Valid**
Special character	Numerical	a-z, A-Z

Add User Equivalence partitioning		
invalid	invalid	Valid
.tiff, JPEG	Zip file	PNG, JPG

username Equivalence partitioning		
invalid	**invalid**	**Valid**
Special character	Numerical	a-z, A-Z, 0-9

Password Equivalence partitioning		
invalid	**invalid**	**Valid**
Special character <=40	>=7	a-z, A-Z, 0-9, special characters

6.3. Data flow testing

Data flow testing is a family of test strategies based on selecting paths through the program's control flow in order to explore sequences of events related to the status of variables or data objects. Dataflow Testing focuses on the points at which variables receive values and the points at which these values are used.

It is performed at two abstract levels: static data flow testing and dynamic data flow testing. The static data flow testing process involves analyzing the source code without executing it. Static data flow testing exposes possible defects known as data flow anomaly. Dynamic data flow identifies program paths from source code.

Data Flow testing helps us to pinpoint any of the following issues:

- A variable that is declared but never used within the program.
- A variable that is used but never declared.
- A variable that is defined multiple times before it is used.
- Deal locating a variable before it is used.

User side	**Admin side**
Login/Signup	Login
view products	View User details/Search User
Select products	*Manage User (add and delete)*
View All stops	*Create Notification*
Buy products	Manage Route Detail
View status	Add remove shopkeeper.
Sell products	logout
Log out	

Shopkeeper
Login
Manage profile
View All products
Manage all products
Buy/sell producst
View cart
Log out

6.4. Unit testing

Unit testing focuses verification effort on the least unit of software design—the software module or component. The unit test is white-box testing, and the step can be conducted in parallel.

6.5. Integration testing

Integration testing is the software testing in which individual software components are combined and tested as a group. Integration testing occurs after unit testing and

before the validation testing. Unit that otherwise seem to be working fine individually, starts causing troubles when integrated together. The integration process is performed in a sequence of five steps:

- The main control module is used as Admin, Manager, and Driver. Admin, Users and stubs are substituted for all components directly subordinate to the main control module.
- Depending on the integration approach selected(i.e., depth or breadth first), secondary stubs are replaced one at a time with actual modules.
- Tests are conducted as each module is integrated.
- On conclusion of each set of tests, another stub is replaced with the real module.
- Regression testing may be conducted to guarantee that new errors have not been introduced.

6.6. Performance testing

Sr #	Function Name	Performance
1	Application Loading	High
2	Database Connectivity	High
3	Store Data in Database	High
4	Retrieving data from database	High

6.7. Stress Testing

Stress testing is basically used to test the stability and reliability of the system. This test determines the system on its robustness and error handling under exceptionally heavy load conditions Most important use of stress testing is to find out the limit, at which the system or software or hardware breaks. Stress testing executes a system in a manner that demands resources in abnormal quantity, frequency, or volume. Special tests may be designed that generate ten interrupts per second, when one or two is the average rate of Input data rates may be enlarged by an order of magnitude to determine how input functions will respond, Test cases that require maximum memory or other resources are executed, Test cases that may cause whipping in a virtual operating system are designed,

Test cases that may cause unnecessary hunting for disk-resident data are created. Essentially, the tester attempts to break the program. Dissimilarity of stress testing is a technique called sensitivity testing.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

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7.2. Achievements and Improvements

The biggest achievements here are that we were able to compile all we learned in two years of studying and apply it to this project. We learned software architecture design techniques, UML modeling, project management, software quality assurance, testing and much more, and were able to apply it all in this project. We learnt during this project, new languages, frameworks, libraries and data handling techniques, all that will be useful for us in our futures

7.3. Critical Review

In this study, we have studied different techniques for designing and developing. We have studied managing techniques and firebase app developing and many more techniques of android.

7.4. Lessons Learnt

4. We absorb very much from this project. This project sharpens our skills in Web development, designing tools and many management concepts as well as how to deal with a problem and how to stick for finding the solution of any problem. As well as technical skills this project also enhance our personal development skills such as team working, dedication. We learnt various types of techniques in app developing. This project is a stepping stone for us in the beginning we don't even know that if we accomplished it or not but due to our hardworking and research, we do it and it's an achievement for us that motivates us to do better and more.

7.1. Future Enhancements/Recommendations

Development cannot be end at any stage. Development cycle is the infinite cycle and with the passage of time we will make it more efficient easier and more beneficial. We will introduce new features and introduce it web Application for easy use.

Appendices

AppendixA: User Manual

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[*Between 4 to 8 lines describe what is this appendix all about*]

AppendixA: Appendix Title
[Appendix Heading 1]: [20 pt, Calibri, Bold, Left aligned]

Text in 12-Point Size, Times New Roman, 1.5 Line Spacing.

A.1. First Level heading [16 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

A.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

A.1.1.1. Third level heading [12 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

Appendix B: Administrator Manual

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[*Between 4 to 8 lines describe what is this appendix all about*]

B.1. First Level heading [16 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

B.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

B.1.1.1. Third level heading [12 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

Appendix C: Information / Promotional Material

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[*Between 4 to 8 lines describe what is this appendix all about*]

C.1. Broacher

C.2. Flyer

C.3. Standee

C.4. Banner

C.5. First Level heading [16 pt, Calibri, Bold, Left aligned]

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C.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

C.1.1.1. Third level heading [12 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

Appendix [no.]: Appendix Title

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing,Justified]

[*Between 4 to 8 lines describe what is this chapter all about*]

A.1. First Level heading [16 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

A.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

C.1.1.2. Third level heading [12 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

Reference and Bibliography

Reference and Bibliography

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