The SUPERIOR UNIVERSITY LAHORE

Faculty of Computer Science & IT

Final Year Project

PROJECT REPORT

Sweet Shop Management System

Project ID: **FYP-MCSM-F20-019**

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Project Report

Sweet Shop Management System

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
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*The candidates confirm that the work submitted is their own and appropriate credit has been given where reference has been made to work of others

Plagiarism Free Certificate

This is to certify that, I Nazia Nazir S/D of Nazir Ahmed group leader of FYP under registration no MCSM-f19-057 at Computer Science Department, The Superior University Lahore. I declare that my FYP report is checked by my supervisor.

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Date:_____Signature:_____

PROJECT MANAGER

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Date:_____Signature:_____

HEAD OF THE DEPARTMENT

Comments: _____

_____

Date:_____Signature:_____

In The Name OF
ALLAH
The Most Merciful!
The Most Beneficent!
The Most Gracious!

"In all that Allah has provided for you, seek the higher value and don't

Forget to seek your share of this world. Do good as Allah have done well to you and

Spread corruption in the world. Allah loves not

The agent of corruption".

(Al-Quran)

GOLDEN SAYING

OF

HOLY PROPHET

(PBUH)

"By research we mean to see what everybody has seen, and to think what nobody has thought. He who goes in search of Knowledge is God's path".

(Al-Hadith)

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

In the name of **Almighty ALLAH**, the most Beneficent and Merciful who very kindly make possible to accomplish this piece of work successfully.

My admirations are to the Holy Prophet **"MUHAMMAD (ﷺ)"** who is perpetually the source of guidance and knowledge for the humanity.

We would like to articulate my heartfelt sense of gratitude to my worthy supervisor, **Mr. Javaid Iqbal** for their guidance, useful suggestions, unstinted help, constant encouragement and sympathetic behavior during my research.

Special thanks to my forever fellows **Mafia Rafiq** and **Rizwan Hussain** for their help throughout my stay at this university. We are thankful to Superior University Lahore.

Our acknowledgements are incomplete without those who are my own, whose love will never end and whose prayers will never die my loving parents.

May **Almighty ALLAH** bless them in all fields of life (Aameen)

Nazia, Mafia, & Rizwan

Executive Summary

*This **"Sweet Shop Management System"** allows users to check and purchase various sweet dishes and ca available online. The project consists of list of sweet products displayed in various categories and the user can browse through the things. User can add the selected items it to his shopping cart and other payment method. User wants to register on the place before checking out. He can then login using same id password next time. Now he may pay through a credit card or cash on deliverance. The user receives a copy of the shopping delivery on his email id after the successful transaction. Here we use friendly user-interface to make the complete frontend. The middle level or code behind model is designed for fast processing. In accumulation, SQL serves as a backend to store sweet shop products lists data. Thus, the online sweet shopping project brings an entire sweet shop online, making it easy for both purchaser and seller.*

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Introduction

Chapter 1

1.1. Introduction

This project is an **"Sweet Shop Management System"** that allows users to check for different bakery and sweet Shop items presented at the online shop and then purchase online. The project provides a list of sweets products displayed online in a variety of categories. The user may browse through these items. If the user needs to purchase any item for consumption, he and she may add it to his shopping cart. Keeping the features of an e-commerce site, an online Sweet shop project acts as a fundamental database containing various bakery Sweet products. It provides customers online shopping services and facility from their homes**.** A customer can sign up for free our website, login in to his and her account can browse items of his and her own awareness, and can view order prices and other details of selected items, placeitems with chosen weights into the shopping cart and can select from payment options throughany cart. After that, the user can make sure. The user can select any payment option that he and she wish to, like through credit, debit card or cash on delivery. This website project will bedeveloped using Sublime Text HTML, CSS, JAVA and PHP as the front end and XAMPP Server MYSQL as a back-end. The SQL database will store all information about the usersand various sweet shop items along with their individual categories.

At checkout time, the items along with the ordered weights and the total amount to be paid obtainable as a ready order to the client. At that time, more information will be wanted to complete the contract. Generally, the customer will be asked to fill a very short and simple form contain information about delivery address and other details, and payment information such as payment cash on delivery, etc. An email notification will also survive sent to the customer as soon as the order is sited and place. For authentication, the user also receives a copy of the shopping receipt on his and her email id after the successful transaction.

1.2. Background

Many of us feel so deadly to go bakeries and sweet shop and choose the wonderful cake for family and friends during any special events occasions. Some of us even forget to purchase cakes for our beloved ones outstanding to our busy and fixed schedule that don't let us to move away from our chair. Isn't it be easy for us if we just order a cake through online and all they will do is convey it right in front of your house or office and different placed. A sound pretty easy isn't it. Hereby, I have recommended an "Online Sweet Shop Management System" to be developed for Sweet shop that will be opened soon. Online Sweet Bakery is a Sweet Shop that expected to be a small-sized and efficient business with a small budget astheir modal. They offer services like baking cakes, cookies and pastries for the customers and need their people that needs. as well that, they also do cake deliveries just like some fast food restaurant and cafe been enthusiastic since years ago. This system aims designed to offer and take delivery order of orders or services honestly from and to Online Sweet Shop through online. It is more like a fast-food styled but an online sweet and cake delivery services. Through this new system that been planned, customers can place their cake orders through online and pay as well to enjoy their cakes each in delivery or pick-up point from placed.

1.3. Purposed of the Project

The proposed solution of **" Sweet Shop Management System"** is completely automated System which handled all function of online sweet shop system and allows users to check and purchase various sweet dishes and available online.

- The project consists of list of sweet products displayed in various categories and the user can browse through the things.
- User can add the selected items it to his shopping cart.
- User wants to register on the site before checking out. He can then login using same id password next time.

Now he may pay through a credit card or cash on deliverance

1.4. Literature Review/Existing Solutions

Many of us feel so deadly to go bakeries and sweet shop and choose the wonderful cake for family and friends during any special events occasions. Some of us even forget to purchase cakes for our beloved ones outstanding to our busy and fixed schedule that don't let us to move away from our chair. Isn't it be easy for us if we just order a cake through online and all they will do is convey it right in front of your house or office and different placed. A sound pretty easy isn't it. Hereby, I have recommended an "Online Sweet Shop Management System" to be developed for Sweet shop that will be opened soon. Online Sweet Bakery is a Sweet Shop that expected to be a small-sized and efficient business with a small budget astheir modal. They offer services like baking cakes, cookies and pastries for the customers and need their people that needs. as well that, they also do cake deliveries just like some fast food restaurant and cafe been enthusiastic since years ago. This system aims designed to offer and take delivery order of orders or services honestly from and to Online Sweet Shop through online. It is more like a fast-food styled but an online sweet and cake delivery services. Through this new system that been planned, customers can place their cake orders through online and pay as well to enjoy their cakes each in delivery or pick-up point from placed.

1.5. Problem Statement

An online website for **"Online Sweet Shop Management System"** is a very common system that been used by all of the sweet shop out there. Yet, there is some online sweet shop which failed to provide a good service for the customers not at home there due to some problems. Well let's see what the problems that lead the Sweet Shop to insolvency are. The first reason why a sweet shop fails to satisfy their customers though they have good websites is due to the difference between customary product and display item. Many feel like they have been cheated by the sweets shop and different bakery management because they received items that are totally looks strange and different from what they have planned. It may occur because of the less expertise and skilled people which involved in this baking process. As well that, the credit card trick that happens when customer made payment through online also spoils the honorable that customer have on that particular sweet shop and also bakery. This kind of trick

usually happens because of the poor encryption and protection of the system. Last, but not the least, customers be likely to lose their trust towards the website of a sweet shop because of the delay of the goods delivery service. People lose their endurance if they didn't receive their ordered substance on time right after payment have completed. As a way to overcome all of this existing websites weak point, I have proposed the new idea which is an online website for a sweets shop system. This documentation is aimed to create a website which, handle ordering and delivering cakes, pastries, cookies and cupcakes through online. This system is specially designed for sweet shop which is newly opened.

Sweet shop management system is a homemade bakery that just opened few months ago, and it is located in Pakistan. This bakery sells home-made biscuits, cakes, cupcakes and also pastries, and chocolate which have enticing taste and smell. Since it is newly opened, manyare unaware of this bakery and this made their earnings receiving less day by day. Well, this system is most probably created to promote Sweet shop system so that it can be be familiar with by others easily, especially for those who live around all over the Pakistan. The website that has been created for Online sweet shop management system is been designed with some further features that are customers are allowed to customize their own cake including different flavors, shapes and toppings and they also provide bakery services for 24 hours.

1.6. Proposed Solution

The proposed solution of **"Sweet Shop Management System"** is completely automated System which handled all function of online sweet shop system and allows users to check and purchase various sweet dishes and available online.

- The project consists of list of sweet products displayed in various categories and the user can browse through the things.
- User can add the selected items it to his shopping cart.
- User wants to register on the site before checking out. He can then login using same id password next time.
- Now he may pay through a credit card or cash on deliverance.
- The user receives a copy of the shopping receipt on his email id after the successful transaction.
- Here we use friendly user-interface to make the complete frontend.

- The middle level or code behind model is designed for fast processing.
- In accumulation, SQL serves as a backend to store sweet shop products lists data.
- Thus, the online sweet shopping project brings an entire sweet shop online, making it easy for both purchaser and seller.

1.7. Project Plan

The scope for this project developing a website that operates as online system that can send and receive information to the party involved. Further that, this project helps to promote and create a yardstick for Sweet shop management system bakery that about to open. This system operates through online and will be extremely secured as there will be different users with different keys to login into their account.

What my system can't do?

- ✓ Users must acquire a good connection of internet to place an order through online
- ✓ Users must provide accurate location and personal information like id, email, name, and address etc so that the Sweet shop Management can keep tracking their customer till the safe delivery took place.
- ✓ Only one ID for one user to avoid illegal transaction
- ✓ Users are not allowed to make orders more than 3 cakes not in one business to avoid online frauds happens.

1.8. Work Breakdown Structure

Figure 1.1

1.9. Roles & Responsibility Matrix:

The purpose of roles & responsibility matrix is to identify who will do what.

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	Requirement Gathering	1	Proposal Submission	10	Nazia Nazir Mafia Rafiq Rizwan Hussain
2	Analysis	2	First Documentation	5	Nazia Nazir Mafia Rafiq Rizwan Hussain
3	Architecture	3	Proposal submission	15	Nazia Nazir Mafia Rafiq Rizwan Hussain
4	Designing	4	System design	10	Nazia Nazir Mafia Rafiq Rizwan Hussain
5	Implementation & Development	5	Implementation	10	Nazia Nazir Mafia Rafiq Rizwan Hussain
6	Database Module	6	Testing Performance	5	Nazia Nazir Mafia Rafiq Rizwan Hussain
7	Final Testing	7	Server	8	Nazia Nazir Mafia Rafiq Rizwan Hussain
8	Documentation	8	Database	4	Nazia Nazir Mafia Rafiq Rizwan Hussain

1.1.1: Gantt chart

A Gantt chart, commonly used in project management, is one of the most popular and useful ways of showing activities (tasks or events) displayed against time. On the left of the chart is a list of the activities and along the top is a suitable time scale. Each activity is represented by a bar; the position and length of the bar reflects the start date, duration and end date of the activity. This allows you to see at a glance:

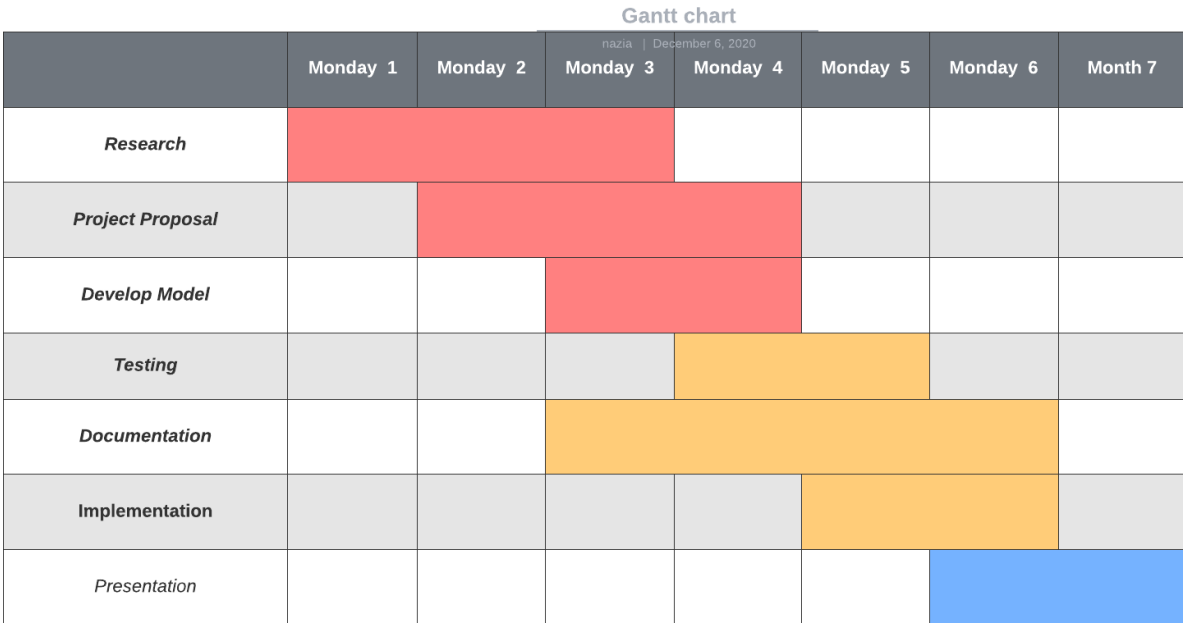


Figure 1.2

Chapter 2

Software Requirement Specification

Chapter 2

2.1. Introduction:

Our sweet shop management system is a full featured, cost justified and integrated web solution and reducing paper work for transaction. The online sweet shop management systemis fully customizable to interface with your existing or can work a stand-alone solution and for your mobile workface and office. The software will allow the owner to maintain their entire record in one place which is easy to manage and reduce the risk of errors and loses. In this solution we providing complete business solution row material management to sale and cash flow control.

2.1.2. Purpose:

Any sweet shop demands a unique design, an efficient interface with full of features that canfit every requirement. Our online sweet shop management system web organizes and manages a variety of sweets with automated price tags to save time and bring convenience in billing. It is highly effective and suitable for the day-to-day activities of an online sweet shop. What's more! It can also keep a record of staff performance and customer.

- Make all the system computerizes, means no paper work.
- Reduce the time consumption.
- Simple data base is maintained.
- Easy operation for operator of the system.
- User interface are user friendly,

2.1.3. Objective:

Sweet shop is to provide a system which manages the sales activity for each day. Our sweet shop management system web organizes and manages a variety of sweets with automated price tags to save time and bring convenience in billing. It is highly effective and suitable for the day-to-day activities of an online sweet shop. What's more! It can also keep a record of staff performance and customer.

2.1.4. Overall description:

It is a system that allows users to check the for a variety of cakes available at the online store and buy online. The project consists of list of Cakes and bakery foodstuffs displayed on various categories. The user may look through through these items as per categories. If the user likes a product he may add it to his shopping carry with difficulty. He may even pay through a credit card or cash on delivery. Once the user makes a successful transaction he gets a duplicate of the shopping greeting on his email id. User has also option for ordering custom cakes according to their requirements like cake's give flavor to, size, and shape and so on. Thus the Cake shopping project brings an whole cake shop and makes it easy forboth purchaser and seller.

2.1.5. Scope:

- Maintain an automated stock handling facility.
- Search facilities for quick Manu factures and suppliers.
- Provide report to the customer as well as management and admin to shop.
- Monthly daily weekly stock values and their record.
- Create a new manufacturing items and adding items.
- Keep the record of daily bases and sweets.
- Trace the customer order and provide home delivery.
- Customer can be order using phone

2.2.1. Operating environment:

An operating environment constitutes the external environment. The operating environment usually comprises supplier and agencies or people who link the company to its customer, competitors and the public. They are usually called the market intermediate. General environment consist of political, cultural and economical environment. These factors of organization provide opportunities, uncertainties and risks to which our sweet shop must survive.

2.2.2. Design and implementation:

This website undertaking can be advanced the use of HTML, CSS, BOOSTRAP and PHP as the front cease and SQL Server / MYSQL as a back-give up. The SQL database will shop all statistics about the users and numerous bakery gadgets at the side of their respective classes. At checkout time, the items together with the ordered weights and the whole quantity to be paid provided as geared up order to the patron. At that point, more records may be wanted to complete the transaction. Usually, the consumer will be asked to fill a totally quick and simple form containing information approximately delivery address and different information, and payment information which include cash on transport and so forth. An e- mail notification mayalso be sent to the purchaser as quickly as the order is positioned. For verification the person also gets a replica of the buying receipt on his / her email identity after a hit transaction.

2.2.3. Functional Requirements:

- The device shall provide convenient interface for User Registration, Categories, Items Search and Payment.
- A visitor user can only view gadgets. For any sort of buying he / she have to must sign in. The system ought to be able to reveal bakery merchandise of their respective categories.
- The gadget will be successful to generate bill invoice and Customer will be able to pay it online.
- The machine shall offer Password Recovery facility thru client e-mail id.
- The machine shall provide special alternatives for income (10%, 15% and 20%) on various bakery items.
- If an item isn't always available (out of stock), and a customer selects it, an alert must be proven to the consumer that this object is out of stock. Managing your inventory successfullyis needed for this undertaking.
- The patron shall be capable of trace his / her order later on. Administrator shall also be capable of hint any order without difficulty.

- The seek interface shall be handy to search any bakery object.
- Every order shall be allocated a completely unique identifier (ORDER_ID).
- The systems shall have both admin and patron perspectives. I.E. Administrator View and User View.
- The patron ought to be able to order custom designed cake.
- Customer shall be capable of get notifications on his / her e mail identification.

2.2.4. Tools:

- Sublime Text
- VS Code
- Window
- XAMPP Server

2.2.5. External interface requirement:

- All the possible interactions of the software with people hardware and other software should be clearly specified,
- The characteristics of each user interface of the software product should be specified and

2.2.6 Hardware Interface:

- Intel Pentium core i3.0Ghz processor.
- RAM 8GB.
- 500 GB hard disk.
- 256 separate VGA.
- Internet connection.
- Ups 30 min.
- Key board mouse.
- Printer.

- Monitor.

2.2.7. Software Interface:

- Microsoft window 7 ultimate.
- web pages.
- Microsoft visual studio 2012.
- Microsoft Office

2.2.8. USER Interface:

Usability:

This is facility to user who use the system anywhere on the world and well form interface, help guidance will be advantages of these ability.

Reliability:

- The system consist of many calculation part and user must working with the correctly.
- Security:
- This system must be perform highly in the system because avoid virus attack
- and many other things.
- Data must be secured, it should be encrypted from others to avoid see what is actual and backup of data in every 24 hours.

Correctness:

The system data must be accuracy and correctness because users expect the detail without error. Modify Stock and other data must be updated correctly.

2.2.9. Features:

2.3.0. Feature no 1:

Automatic Pricing & Billing

Bakery, Sweet Shop POS Management Software gives one-click pricing and billing option. It performs easy calculations in real-time and is capable of recording every sale for future analysis and forecasting.

Stimulus/ response sequences

The software comes with a friendly interface that allows you to see everything on the display.

2.3.1. Functional Requirement

- Auto Pricing
- Easy Calculation of weight with Price
- Cost-Effective
- Efficient and effortless
- Customer Data Recording and Management
- Registration of Each and Every Sale
- Accurate and Error Free

2.3.2. Feature no 2:

Centralize Billing for Multiple Outlets

2.3.3. Description and priority

Our Bakery, Sweet Shop POS is an intelligently designed solution to meet your needs of multiple outlets. Its automated calculation system improves billing for multiple outlets.

2.3.5. Stimulus/ response sequences

Sweet shop management Bakery, Sweet Shop POS registers and records every transaction and keeps inventory records for future analysis.

2.3.6. Functional requirement

- Adjustable with variables (Weight and Price)
- Advance Accounting System
- Multiple Counters Management
- Present/Change Price
- Sync Multiple Outlets Together on a Centralized process

2.3.7. Feature no2:

Advance Booking Order

2.3.8. Description and priority

Our Bakery, Sweet Shop POS comes with an advanced booking tool that allows you to integrate it with your website to make ordering online feasible for your customers who want toorder online. It provides you a tracking feature at different stages – Production, Booking, Dispatch, and Delivery.

2.3.9. Stimulus/ response sequences

The automated reminder feature notifies you about the timing of order and delivery too.

2.4.0. Functional requirement

- Online Ordering System
- Real-Time Packing and Delivery
- Quick Services
- Provision for Feedback from Customers
- In-built Reminder and Alert system

2.4.1. Feature no 3:

Custom Detailed Billing

No wonder sweets shops sell in bulk – in Kgs, and calculating various prices for different weights is not easy. Sweet shop Sweet shop POS eases it with its advanced software system which comes with an impeccable POS solution.

2.4.2. Stimulus/ response sequences

Our system comes with an advanced and professional level of accounting and taxation calculation module to make billing seamless.

- Itemized Billing Feature
- Accounting and Tax Calculation Module
- Customized Billing System
- Records Data and Tax Calculation
- Error Free

2.4.3. Feature no 4:

Inventory Management

2.4.4. Description and priority

Sweet Shops deal with a lot of perishable items. In this case, handling inventory is very difficult.

2.4.5. Stimulus/ response sequences

You need to remember the exact time/date to save items from being wasted. Bakery, Sweet Shop POS solution helps you in receiving reminders and alerts about inventories.

2.4.6. Functional requirement

- Adds a list of items with quick excel upload
- Categorizes items under sub-categories of inventories
- Makes data field easy and flexible
- Alerts and sets reminders when stock runs low
- Enables to view inventory at any category level with rolled up a total
- Offers stock information in a detailed manner with stock drill down
- Lets you know about your total stock along with its value at any time

2.4.7. Safety requirement:

The main priorities for physical risk are: -

Safety

• Slips and trips in the workplace

• Work equipment

• Workplace transport and road risk

• Work at height including in and on vehicles

• Working in silos and confined spaces

• Struck by or against objects and knives

2.4.8. Security requirements:

Web pages

Window 10

2.4.9. Non Functional requirement:

Usability:

This is facility to user who use the system anywhere on the world and well form interface, help guidance will be advantages of these ability.

Reliability:

- The system consist of many calculation part and user must working with the correctly.
- Security:
- This system must be performing highly in the system because avoided virus attack and many other things.
- Data must be secured, it should be encrypted from others to avoid see what is actual and backup of data in every 24 hours.

Correctness:

The system data must be accuracy and correctness because users expect the detail without error. Modify Stock and other data must be updated correctly.

Chapter 3

Use case Analysis

Chapter 3
Usecase Analysis

3.1. INTRODUCTION

After analyzing the requirements of the task to be performed, the next step is to analyze the Problems and difficulty and understand its situation. The first activity in the phase is studying the existing system and other is to understand and recognized the requirements and domain of the new system. Both the activities are similarly important, but the first activity serves as a source of giving the functional specifications and then successful design of the proposed and of system. Understanding the properties and requirements of a new system is more complicated and requires creative thoughts and understanding of existing organization system is also difficult, inappropriate understanding of present system can lead diversion from solution.

3.1.2. Use case Model

Use-case model is a model of how different types of users act together with the system to solve a problem. As such it describes the goals of the users, the communications between the users and the system, and the necessary and required behavior of the system in satisfying thesegoals. A use-case model consists of a quantity of model elements. The most important model elements are use cases, actors and the relationships among them. A use-case diagram is used tographically represent a subset of the model to simplify communications. There will usually bemore than a few use-case diagrams associated with a given model, each showing a subset ofthe model elements related for a particular purpose. The same model element may be shown on more than a few use-case diagrams, but each case must be consistent. If tools are used to maintain the use-case model, this dependability restraint is computerized so that any changes to the model element will be automatically reflected on every use-case diagram that shows thatcomponent.

The use-case model may include packages that are used to organization the model to simplify analysis, communications, navigation, development, maintenance, preservation and planning.

Basic Model Elements

The use-case model contains, as a minimum, the following basic model elements**.**

Actor

A model element representing each actor. Properties include the actors name and brief description. See Concept: Actor for more information.

Use Case

A model element representing each use case. Properties include the use case name and use case specification. See Artifact: Use Case and Concept: Use Case for more information. A use case describes how a user uses a system to accomplish a particular goal. A use case diagram consists of the system, the related use cases and actors and relates these to each other to visualize: what is being described? (**System**), who is using the system? (**Actors**) and what do the actors want to achieve? (**Use cases**), thus, uses cases help ensure that the correct system is developed by capturing the requirements from the user's point of view.

Description of Usecase Diagram:

- System
- Login
- Interface Home
- Categories
- Ordering Interface
- Payment System
- Shop Profile
- Delivery Method
- Feedback

2.1.3. USE CASE DIAGRAM

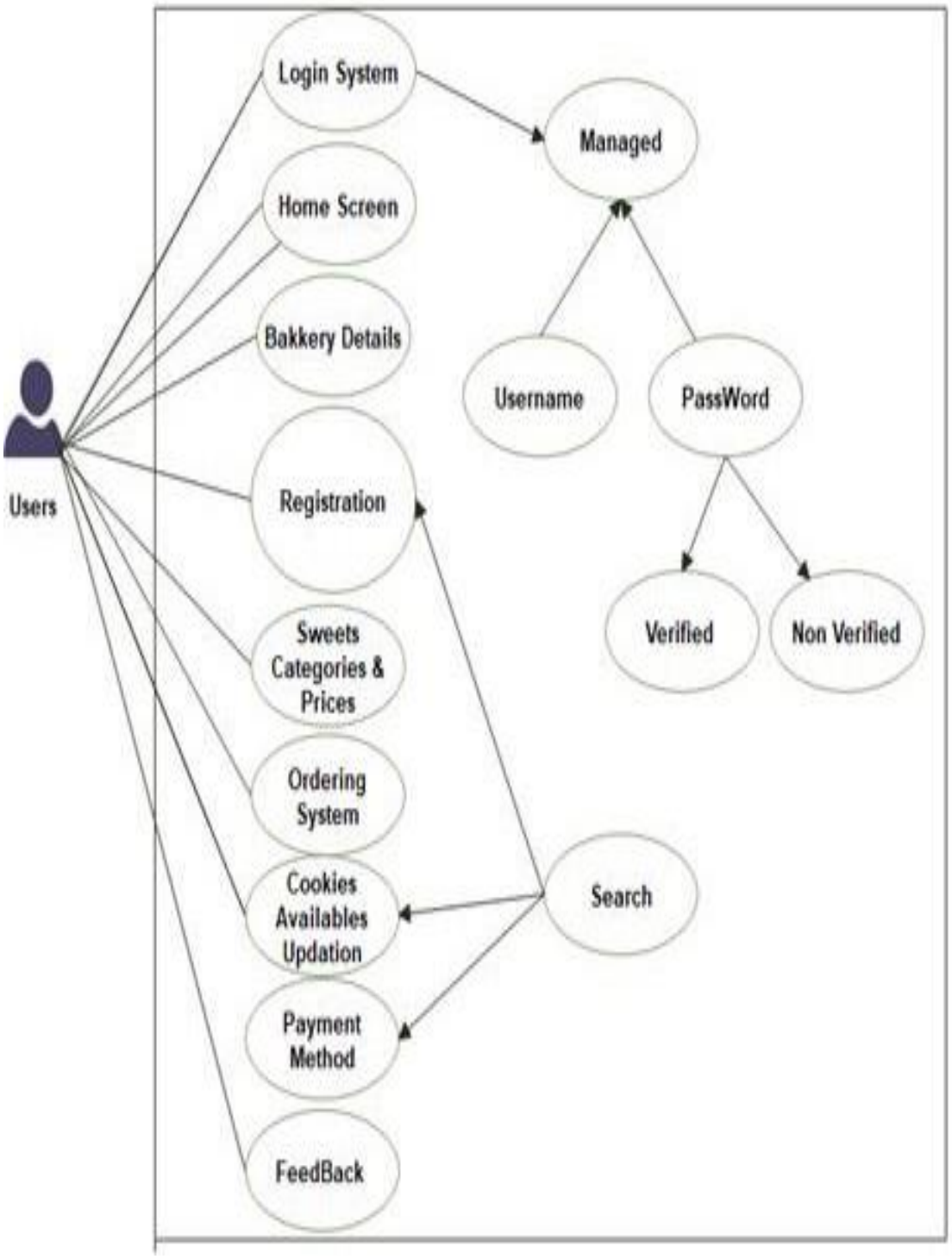


Figure 3.1

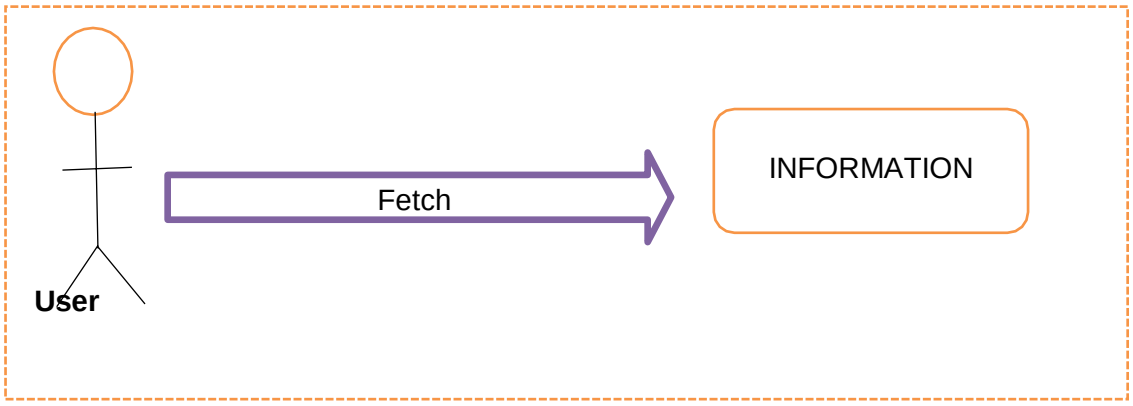
3.1.4. Fully Dressed Use Cases

Brief use case

Use case: Get Information

Actor: Users

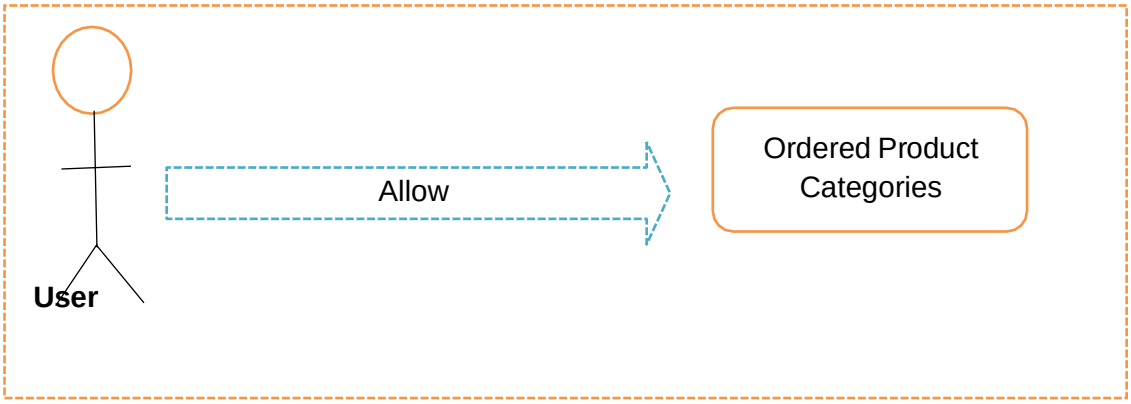
Description: System provides all the information of user sweet shop management system.



Fully dresses use case:

Use case name	Get Information
Scope	Provide Information of user
Primary actors	User
Actors goal	To get the essential detail of Sweet Shop Management System.
Precondition	User must Register in System.
Post condition	Allow the user For ordered Categories with valid information.
Success scenario	User gets Register in Sweet Shop System.
Extension	If all the required information is not fulfilled.
Miscellaneous	System Allow Complaint on system Sites.

4 .Extended use case:



Use case: Ordered Product.

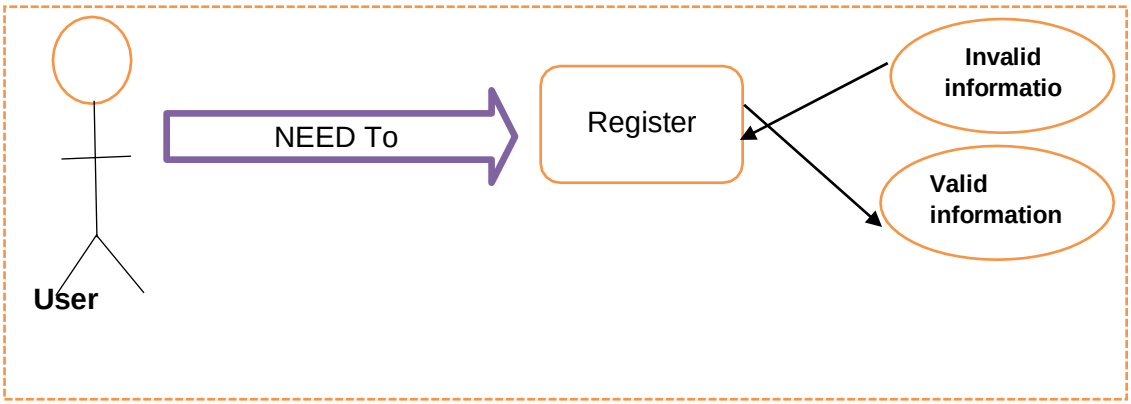
Actor: User.

Description: System provide user to allow ordered product categories.

Fully dressed use case:

Use case name	Allocate room.
Scope	Ordered product categories
Primary actors	User
Actors goal	System provide user to allow ordered product categories
Precondition	user must give valid information to register.
Post condition	User information is verified.
Success scenario	User gets register in sweet shop and allow to order.
Extension	If all the required information is not fulfilled.
Miscellaneous	System should handle all the issues.

4. Extended use case:

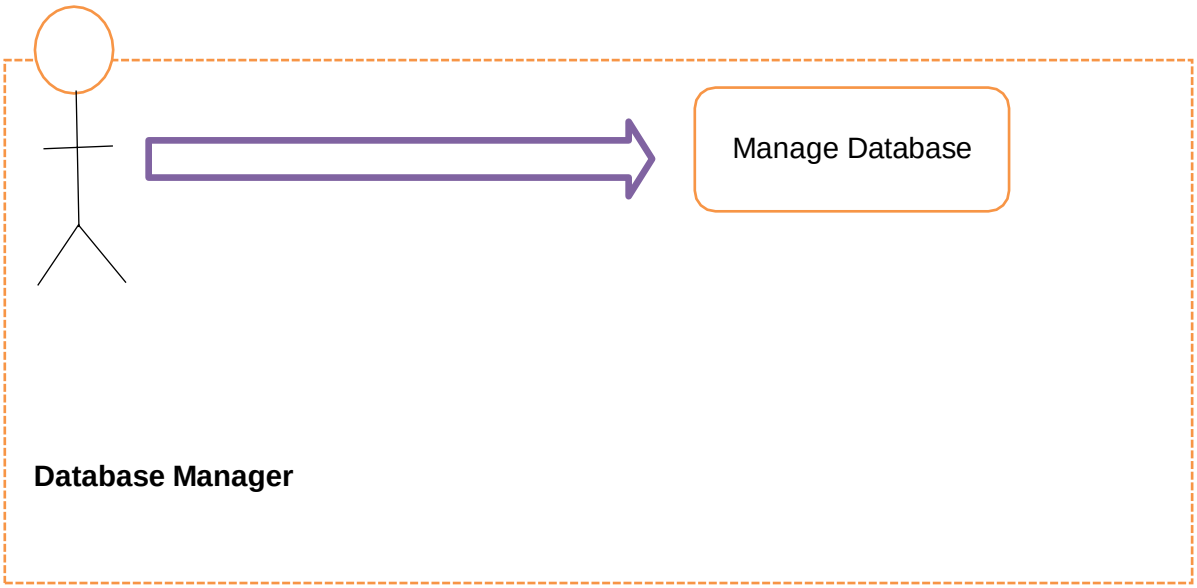


Brief use case:

Use case: Register.

Actor: User

Description: Register and manages the information given by user in the database.



5. Fully dressed use case:

Use case name	Manage information.
Scope	Management of information given by User in database.
Primary actors	User
Actors goal	To manage the information given by User in database.
Precondition	Database manager must get information from User.
Post condition	Database manager has inserted all the valid information in database of user.
Success scenario	Information is managed properly by Database manager. New information is inserted in database for new user Registration and updated.
Extension	If all the required information is not fulfilled.
Miscellaneous	Database manager should handle all the issues related to database.

Chapter 4

System Design

Chapter 4

System Design

4.1. Introduction:

We are designing the whole system conceptually, just to clear out how our system will look like. We have designed the architecture diagram how software will interact and look like in real world. We design different models like domain model which indicates the relationships between all components and classes. Concluding from diagrams how system will work and interact with end users and administration.

4.2. Architecture Diagram

An architectural diagram is a diagram of a system that is used to conceptual the overall draw of the software system and the relationships, constraint, and limitations between components. It is an important tool as it provides an overall observation of the physical deployment of the software system and its development roadmap.

A "system architecture" is the personification of concepts and the allocation of the correspondences between the functions of equipment or information and formal fundamentals. It defines the contact among elements as well as between elements and the surrounding environment.

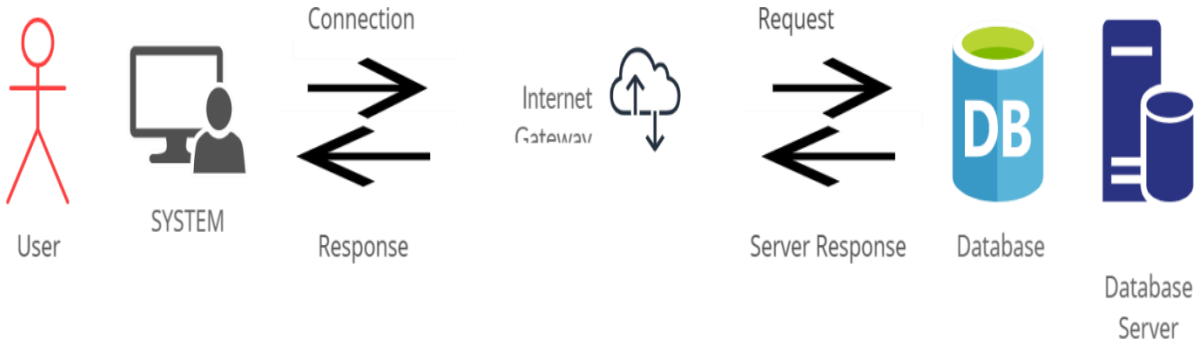


Figure 4.1

5. Domain Model

A domain model is a formal representation of a knowledge domain with concepts, roles,datatypes, individuals, and rules, typically grounded in a description logic in fth following figure we use spiral model Spiral model in software engineering is also a step by step procedure to develop new software. It is mainly used when there is a dependency between the models. Each phase in the spiral model begins with design and ends with the client reviewing theprocess .planning and designing Implementation Play test evaluating

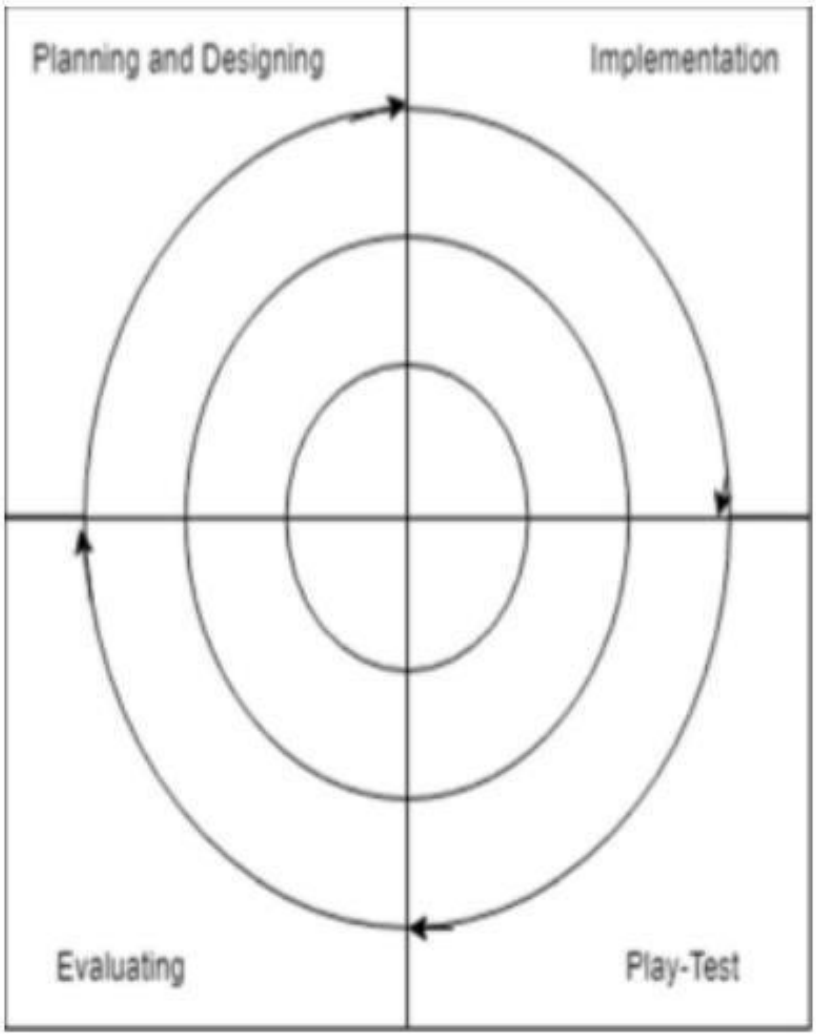


Figure 4.2

5.2. Entity Relationship Diagram

An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities

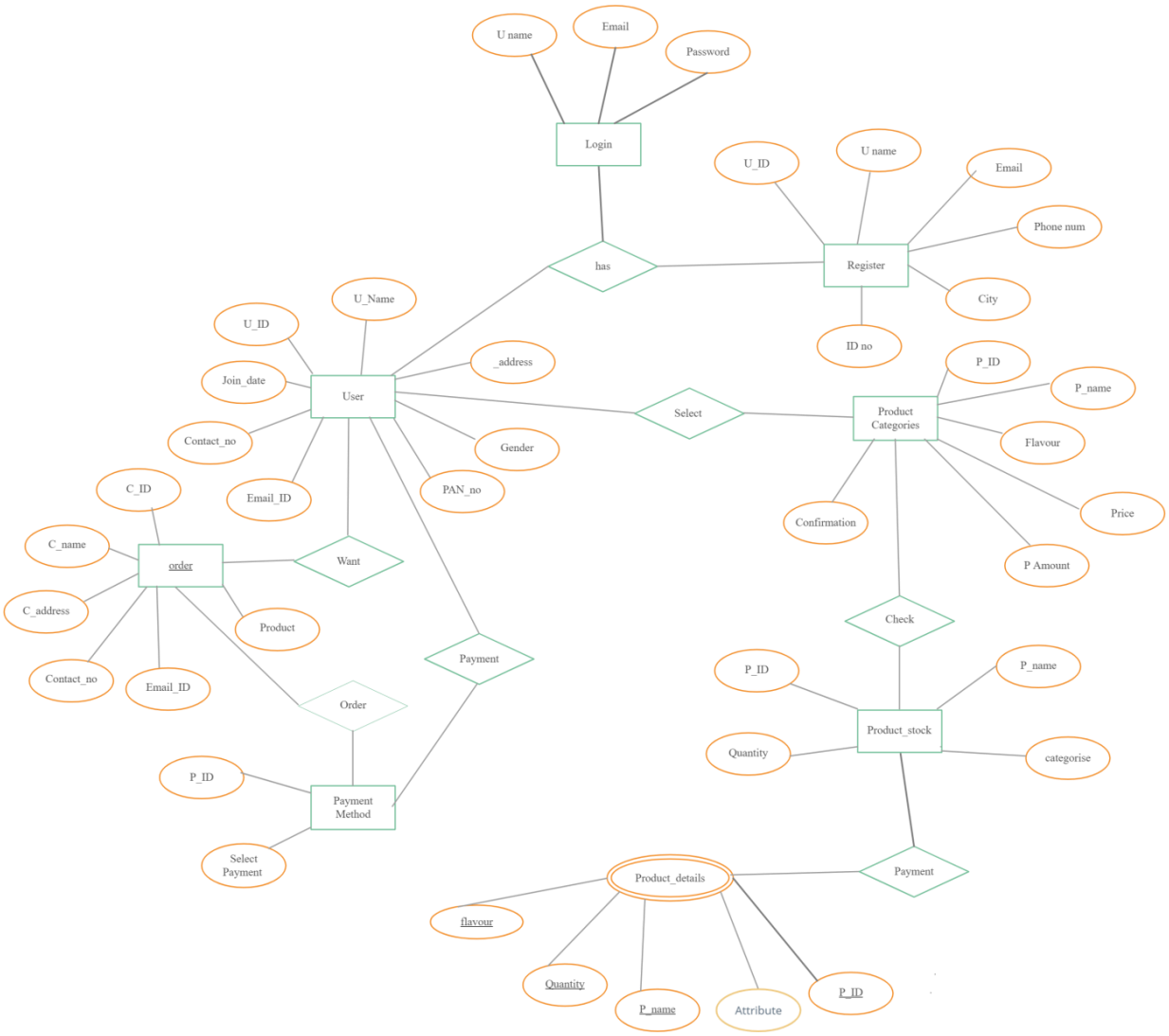


Figure 4.3

5.3. Class Diagram

Class diagram indicates the classes used in Lunchbox. If a customer wants make an order, then make order and pay bill against selected order. User can perform multiple tasks. Admin manage the accounts. User is parent class. Customer, admin and user are inherited by user class. Filled diamond sign shows dependency. Classes which are fully composite are shown byfilled diamond sign. The following Class Diagram of our project gives an overview of **"Sweet Shop Management system"** by displaying its classes, attributes and operations:

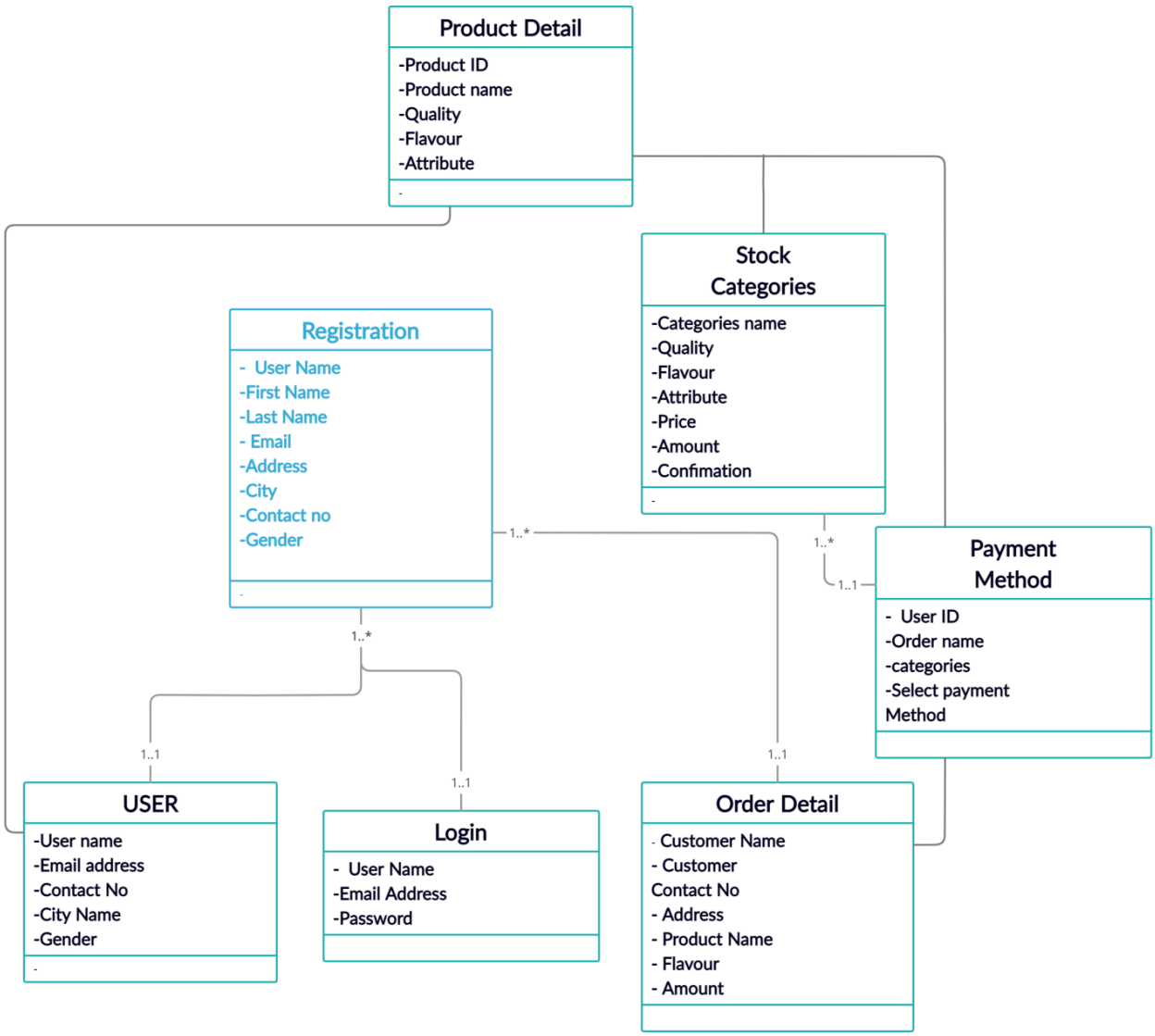


Figure 4.4

5.4. Sequence / Collaboration Diagram

Sequence diagram is an interaction diagram that shows how the objects operate with one another in order. How message is exchanged between the objects of the scenario. Sequence diagrams are sometimes called event diagrams. Activations and life lines are used in sequence diagrams for exchange the message between objects. The following Sequence Diagram shows system's objects interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the system

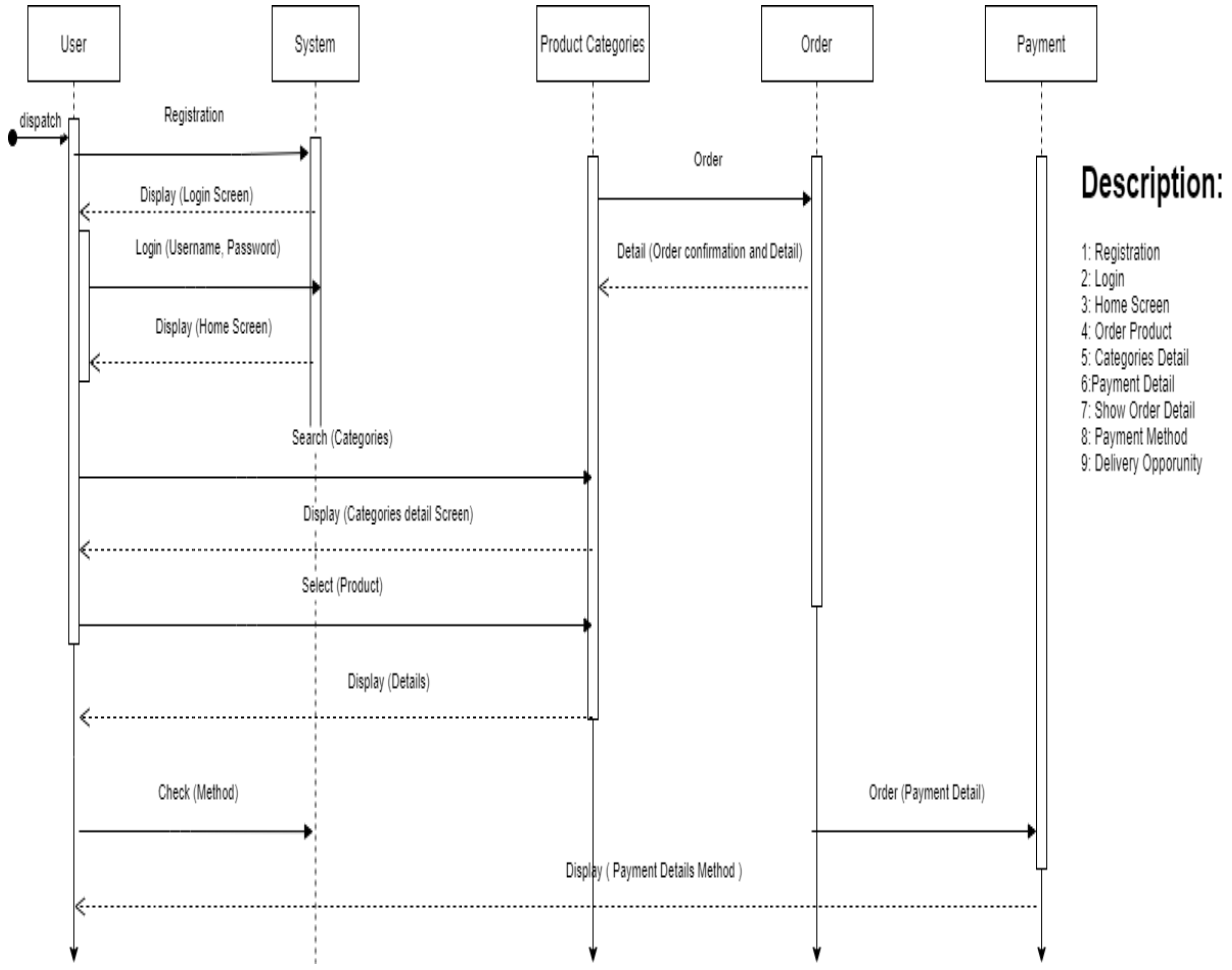


Figure 4.5

5.5. Operation Contracts

5.5.1. LOGIN

Operation Name: Validation (username, password)

Cross Reference: Use case: Login

Pre-condition: System should ask for login when system starts

Post condition: Login Instance LI has been created for user login operation

LI was associated with user.

Operation Name: Enter (User name, email, password, confirm password, CNIC, phone no, address)

Cross Reference: Use case: Sign up

Pre-condition: The user should not be register to the system already

Post condition: After successful signup a user instance generated which stores the user details and the customer will be registered to the system as user.

5.5.2. View Product

Operation Name: View all products or select category

Cross Reference: Use case: Search different product of sweets

Pre-condition: NONE

Post condition: Selected products are associated with the user.

5.5.3. ADD TO CART

Operation Name: View cart for total amount and selected products

Cross Reference: Add New Sweet Categories

Pre-condition: Items shell be selected

Post condition: New cart C created associated with the user that uses this cart (association formed). New table created that keeps the selected items record

5.5.4. Remove from CART

Operation Name: View cart for total amount and selected products

Cross Reference: Remove categories

Pre-condition: Items shell be selected

Post condition: Existing cart C will be removed. Associated with the user that uses this cart (association formed). Record will be deleted from the database

5.5.5. PLACE ORDER

Operation Name: Select check out to choose payment .

Cross Reference: Use case: Place order

Pre-condition: Items to be selected and in the cart

Post condition: Place order by clicking on confirm order

5.5.6. PAYMENT

Operation Name: Payment method selected

Cross Reference: Use case: Payment

Pre-condition: Items selected to confirm order

Post condition: Payment is associated with the cart object C of that user. Temporary table created that

hold the payment user id and cart id. Payment proceed

5.6. Activity Diagram

Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. The control flow is drawn from one operation to another.

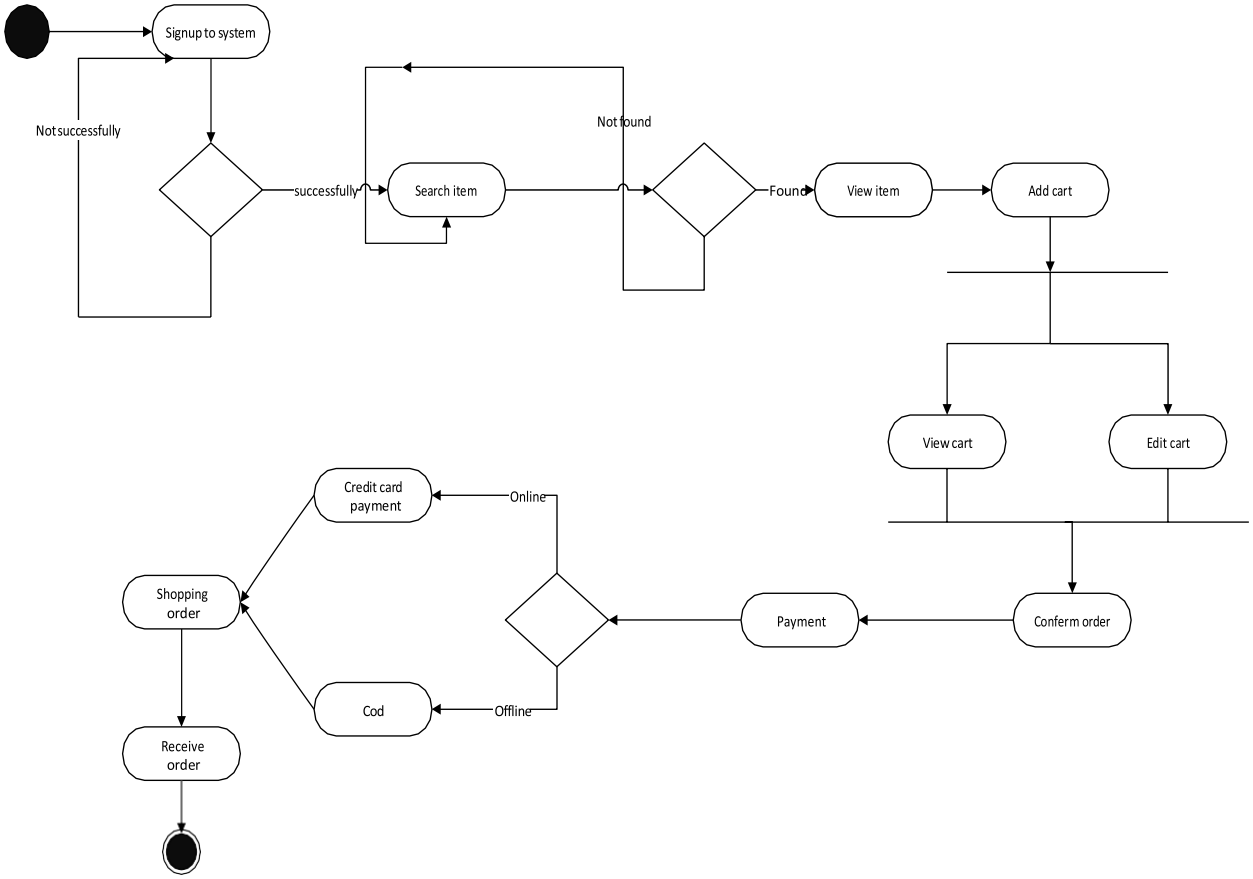


Figure 4.6

Activity Diagram of Admin:

Activity diagrams are graphical representations of workflows of stepwise activities and action with support for choice, iteration and concurrency in following diagrams we present the graphical image of the system.

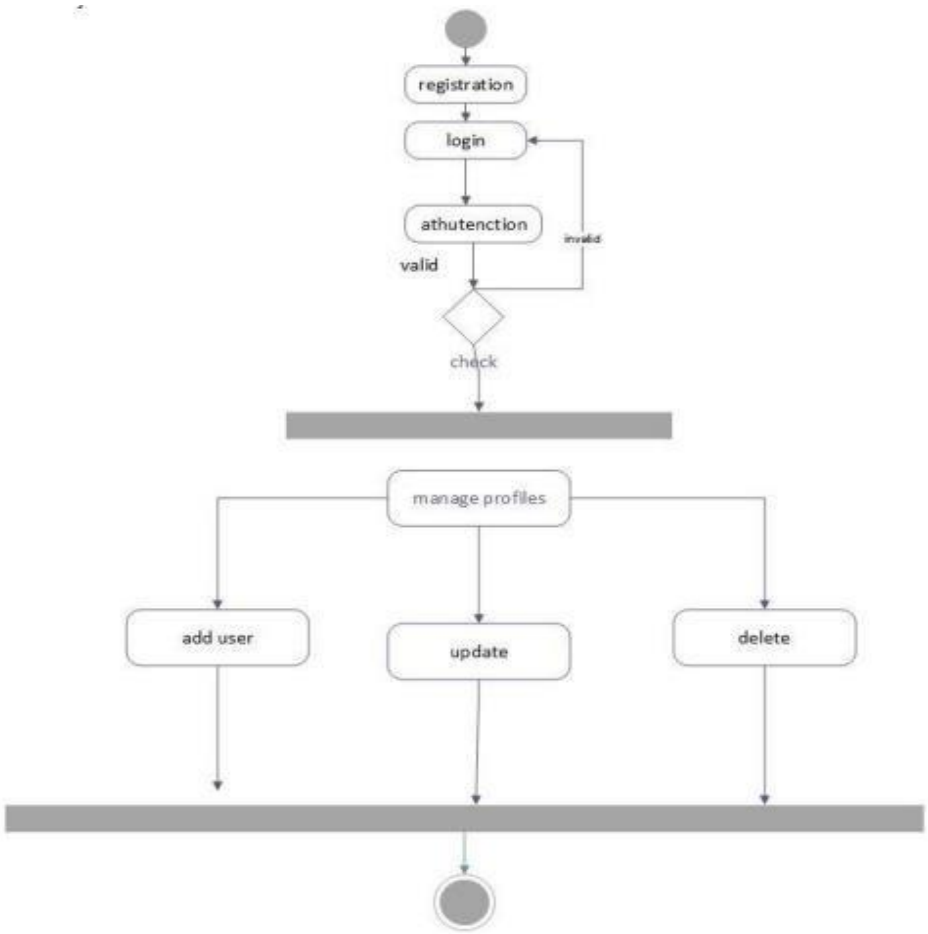


Figure 4.7

5.7. State Transition Diagram

State diagram simply state the working of the user against the software. Activity diagrams are graphical representations of workflows of stepwise activities and action with support for choice, iteration and concurrency in following diagrams we present the graphical image of the system

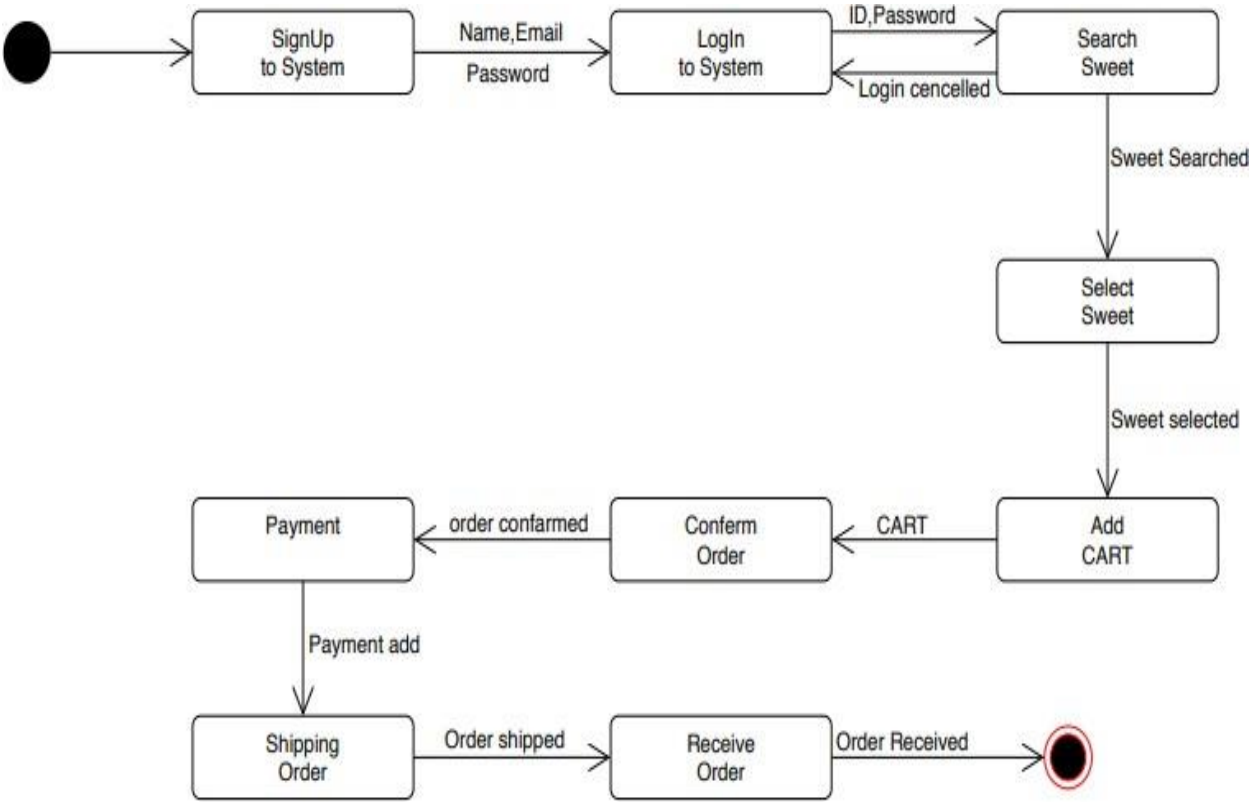


Figure 4.8

5.8. Component Diagram

Lunchbox app holds the components like customer, User, rider, order detail, order selection and payment. All components data is stored into database by data storage component which is connected by full moon or crescent moon.

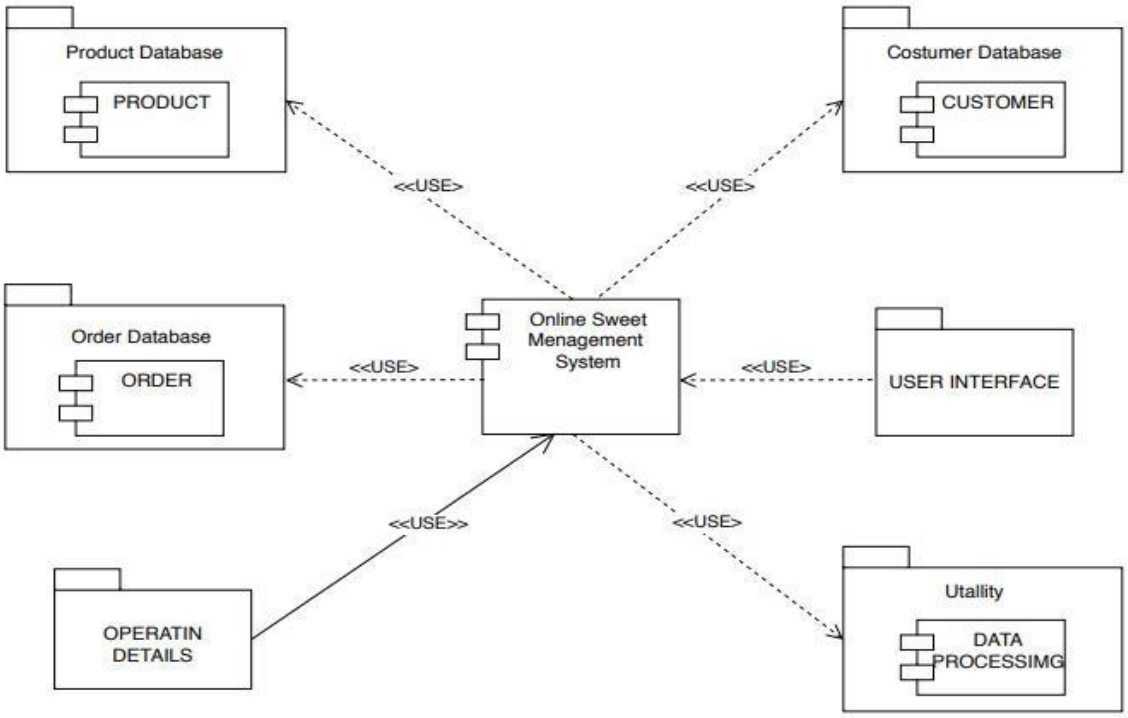


Figure 4.9

5.9. Deployment Diagram

This diagram tells how the system will be deployment in real world. Only major parts of the software are shown in diagram. Lunchbox app holds the components like customer, User, rider, order detail, order selection and payment. All components data is stored into database by data storage component which is connected by full moon or crescent moon.

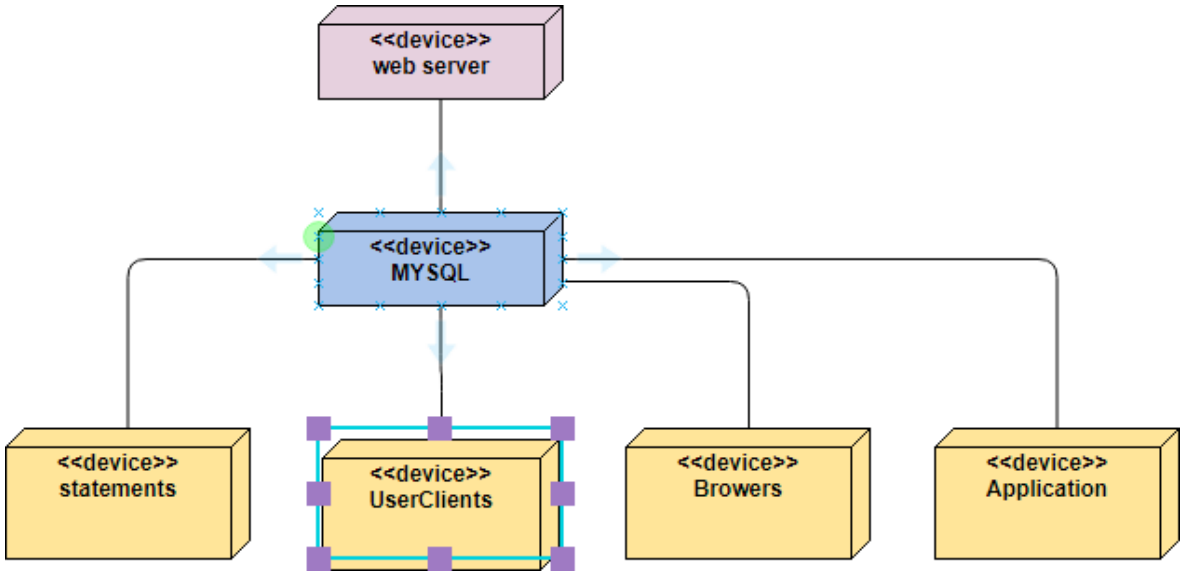


Figure 4.10

5.10. Data Flow diagram

Data flow diagram shows how different environments will interact with each other. Lunchbox interaction with User, Rider, customers and admin. Data flow as it is cleared from its name how the flow of processes will take place. As customer will search for order, select order and submit for order. Processing of all phases can be understood by diagram.

Dataflow Diagram Level 0:

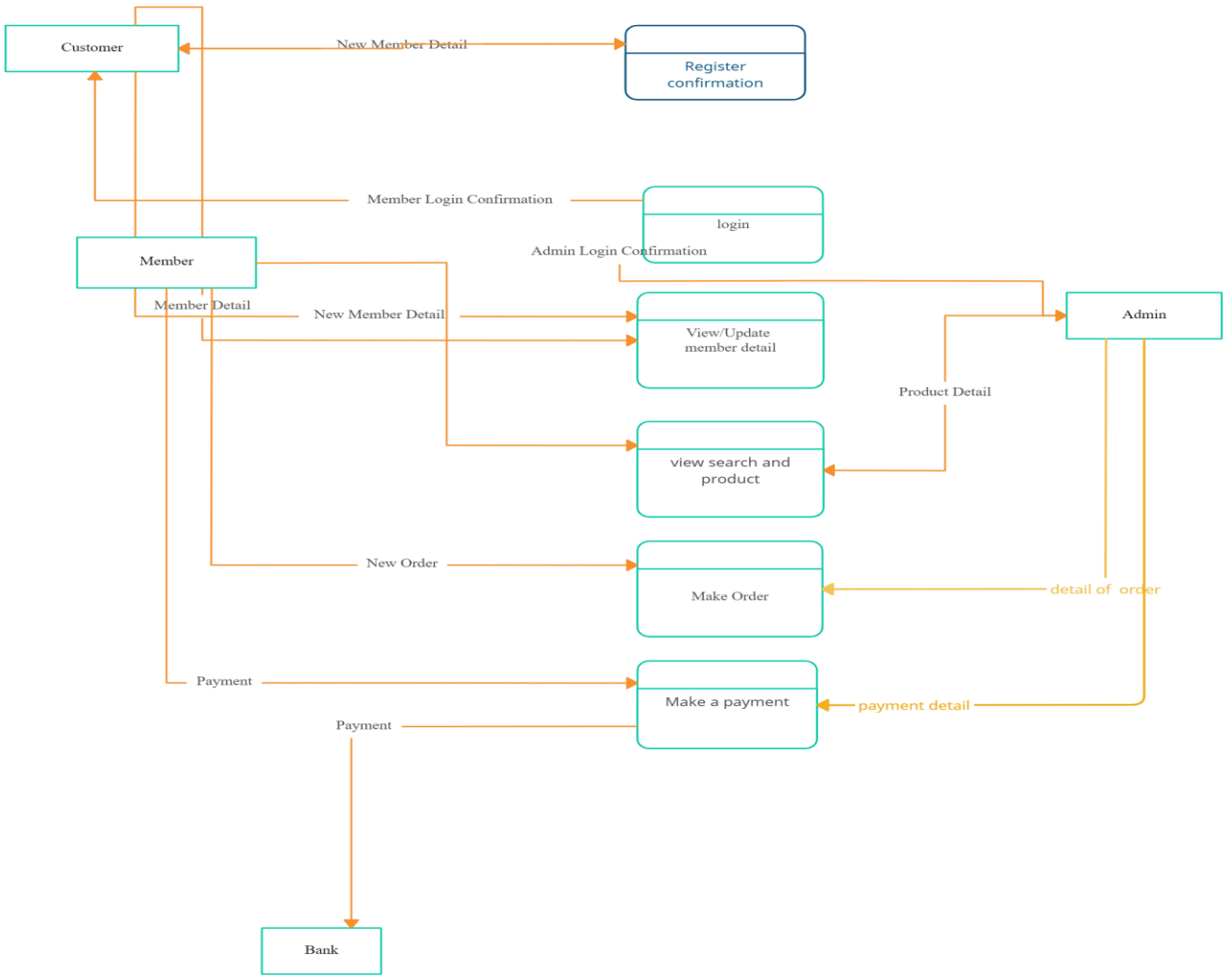


Figure 4.11

Dataflow Diagram Level 1:

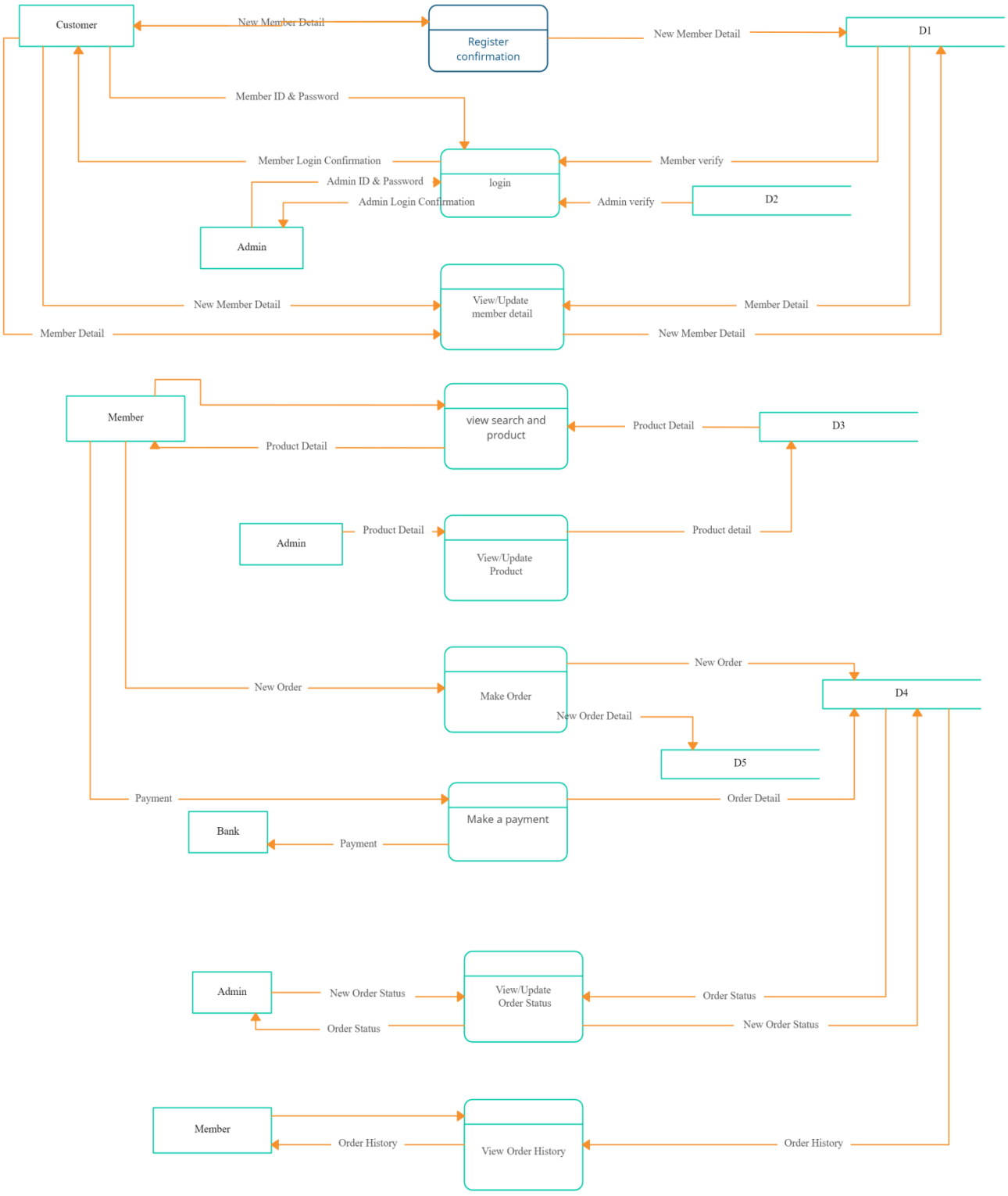


Figure 4.12

Chapter 5

Pseudo

Chapter 5
Implementation

5.1. Flowchart

Also called process flowchart, process flow diagram. Variations: macro flowchart, top-down flowchart, detailed flowchart (also called process map, micro map, service map, or symbolic flowchart), deployment flowchart (also called down-across or cross-functional flowchart), several-leveled flowchart

A flowchart is a picture of the separate steps of a process in sequential order. It is a generic tool that can be adapted for a wide variety of purposes, and can be used to describe various processes, such as a manufacturing process, an administrative or service process, or a project plan. It's a common process analysis tool and one of the seven basic quality tools.

Elements that may be included in a flowchart are a sequence of actions, materials or services entering or leaving the process (inputs and outputs), decisions that must be made, people who become involved, time involved at each step, and/or process measurements.

5.1.2. WHEN TO USE A FLOWCHART

- To develop understanding of how a process is done
- To study a process for improvement
- To communicate to others how a process is done
- When better communication is needed between people involved with the same process
- To document a process
- When planning a project

5.1.3. FLOWCHART BASIC PROCEDURE

Materials needed: Sticky notes or cards, a large piece of flipchart paper or newsprint, and marking pens.

1. Define the process to be diagrammed. Write its title at the top of the work surface.

2. Discuss and decide on the boundaries of your process: Where or when does the process start? Where or when does it end? Discuss and decide on the level of detail to be included in the diagram.
3. Brainstorm the activities that take place. Write each on a card or sticky note.
4. Arrange the activities in proper sequence.
5. When all activities are included and everyone agrees that the sequence is correct, draw arrows to show the flow of the process.
6. Review the flowchart with others involved in the process (workers, supervisors, suppliers, customers) to see if they agree that the process is drawn accurately.

5.1.4. FLOWCHART CONSIDERATIONS

Don’t worry about drawing the flowchart the "right way." Ultimately, the right way is the way that helps those involved understands the process.

Identify and involve in the flowcharting process all key people involved with the process. This includes suppliers, customers, and supervisors. Involve them in the actual flowcharting sessions by interviewing them before the sessions and/or by showing them the developing flowchart between work sessions and obtaining their feedback.

Do not assign a "technical expert" to draw the flowchart. People who actually perform the process should do it.

5.1.5. Flowchart

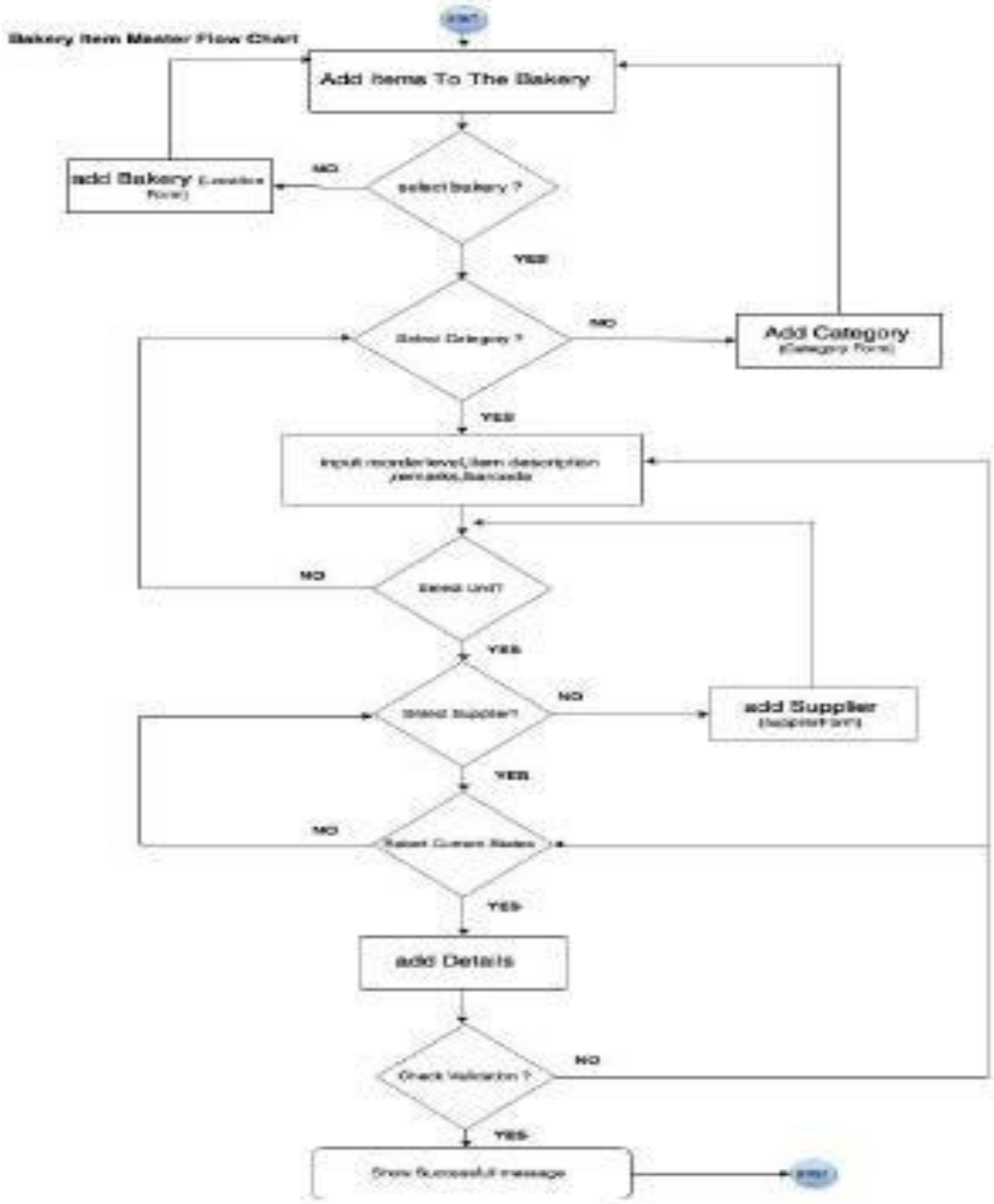


Figure 5.1

5.2. Component, libraries, web services and stub:

5.2.1. Component:

Our online sweet shop management system is a full featured, cost justified and integrated web solution and reducing paper work for transaction. The online sweet shop management system is fully customizable to interface with your existing or can work a stand-alone solution and for your mobile workface and office. The software will allow the owner to maintain their entire record in one place which is easy to manage and reduce the risk of errors and loses. In this solution we providing complete business solution row material management to sale and cash flow control.

Scope:

- Maintain an automated stock handling facility.
- Search facilities for quick Manu factures and suppliers.
- Provide report to the customer as well as management and admin to shop.
- Monthly daily weekly stock values and their record.
- Create a new manufacturing items and adding items.
- Keep the record of daily bases and sweets.
- Trace the customer order and provide home delivery.
- Customer can be order using phone

5.2.2. Schedules

This section describes in detail the schedules and logs that define the detailed plans for the project. Again these can be references to external documents or files held in tools such as Microsoft Project.

- Project lifecycle which sets out the overall phases of the project.
- Precedence diagrams which describe the dependencies between the different work packages.
- Resource histograms which set our the resources required to deliver the project against the resource availability.

Time line plans

- Manage your marketing projects with a free Marketing Plan for a Bakery in Excel, Google sheets, or in a Gantt chart. Download or edit it for free.
  Or use professional ready-made marketing templates in GanttPRO - the software developed to create powerful Gantt charts within minutes.

5.3.1. Budgeting and Cost Management

Is the estimating of costs and the setting of an agreed budget, and the management of actual and forecast costs against that budget. Being able to predict with some certainty the rate at which the project is spending its funds is crucial to know whether the project is on track.

5.3.2. Web Services

WSDL File

Web Services Implementation File.

Custom-Server. CSS.

Web. Html, Bootstrap, Jquery.

Java. Xml.

Build. Xml.

Build. Properties.

5.3.3. Stub

- Kheer/ Feerni/ Sheer Khurma
- Ras Malai
- Gajar ka Halwa
- Lab e Shireen
- Rabri
- Barfi
- Laddo
- Gulab jamun
- Jalebi
- Suji ka halwa
- Cakes.

5.3.4. Tools and technique:

Tools:

- MySQL Server
- PHP
- VS Code
- Window 10

This runs on Windows, Linux, and Android platforms. The software is cloud-based, allowing access to the administrative functions from anywhere on any device any time. The Point of Sale(POS) module fully utilizes the cutting-edge multi-touch capabilities available in today's market, allowing users to navigate the menu efficiently. It also supports all standard hardware peripherals such as printers, scanners, payment terminals, barcodes, and weighing scales.

5.3.5. Best practices/coding standard

HTML

HTML acts as the Structure or skeleton for which our Presentation (Styles) and Functionality (JavaScript) are built on. This makes it the foundation of the other components of our Front-End.

- Browser Rendering Speed
- Search Engine Optimization (SEO)
- Accessibility
- Validation
- Usability

5.4. Formatting

All CSS documents must use two spaces for indentation and files should have no trailing whitespace. Other formatting rules:

- Use soft-tabs with a two space indent.
- Use double quotes.
- Use shorthand notation where possible.
- Put spaces after : in property declarations.
- Put spaces before { in rule declarations.
- Use hex color codes #000 unless using rgba().
- Always provide fallback properties for older browsers.
- Use one line per property declaration.
- Always follow a rule with one line of whitespace.
- Always quote url() and @import() contents.
- Do not indent blocks.

5.5. Version control

Selling your baked goods in the field has never been easier. Bakery POS Software uses the latest touch-screen, scanning, and barcode technologies to speed along transactions wherever your customers are. Below are some of the most popular and most preferred open-source version control systems and tools available for making your setup easier.

5.5.1. Bazaar

Bazaar is distributed version control system, which also provides a great, friendly user experience. Bazaar is unique that it can be deployed either with central code base or as a distributed code base. It is the most versatile version control system that supports various different form of workflow, from centralized to decentralized, and with a number of different variations acknowledged throughout. . One of the greatest features of Bazaar is that you can access a very detailed level of control in its setups. Bazaar can be used to fit in with almost

any scenario and this is an incredibly useful for most projects and admin because it is so easy to adapt and deal with. It can also be easily embedded into projects that already exist.

5.5.2. Deployment environment:

- This phase is use to implement the system to user environment.
- Configure the environment:
- It takes some time to setting up the client and server pcs and connecting to gather with terminals. Check the data transfer rate. Some application needs to install on server machine.
- Hosting the system:
- Install the is set up the web application through this and install as data base server to setup the data. Check the system client work with client pcs.
- Staff training:
- The user of the system need to give a training to how to user, how to about the system, training run with step by step.
- Running the system in the testing environment:
- Running the system in this environment and check the bugs that come out of the system. This system goes with parallel because manual system must be run with that.
- Fixing the bugs and live run:
- Fixing the bugs from the customer feedback, after approving system live to run.

Chapter no 6
Evaluation and Testing

Chapter 6
Evaluation and Testing

6.1 : Introduction

Software testing is a serious element of software quality declaration and represents the critical review of specification, design and coding.

A plan for software testing integrates software test case design methods into a well-planned sequence of steps that result in the successful build of software. Testing is the set of activities that can be planned in advance and conduct systematically.

They are the following Testing Objectives:

- Testing is a process of executing a program with the purpose of finding an error
- A good test has a high prospect of finding an as yet undiscovered error.
- A unbeaten testing is one that uncovers as yet undiscovered error.

6.2 : Unit Testing

In unit testing we have testified our different panel codes individually by performingdifferent tests and by executing them individually, separately on different computers and they were successfully executed and they performed well

6.3 : System Testing

System testing is the testing to make sure that by putting the software in different Operating Systems it still works. System testing is done with full system performance and environment. It fall below the class of black box testing.

6.3.1 : Performance Testing

It is mostly used to recognize any bottleneck or performance issue rather than finding the bugs or error in the software. There are different causes which contribute in lower the performance of software:

- Network delay.
- Client side processing.
- Database transaction processing.
- Load balancing between servers.
- Data interpretation

6.3.2 Stress Testing

This testing type includes the testing of Software performance under nonstandard conditions. Taking away the resources, apply load beyond the actual load edge is Stress testing. The main goal is to test the Software by applying the load of the system and taking more resources used by the Software to recognize the breaking point. This testing can be performed by different scenario such as:

- Shutdown or restart of Network ports by chance.
- Revolving the database on or off.

Successively different process that consume resources such as CPU, Memory, server etc.

6.3.3 : Validation Testing

Validation testing is aims to express that the software function that can be reasonably predictable by the customer. This tests conformance the software to the Software Requirements Specification.

6.3.4 Alpha and Beta Testing

Alpha testing

It’s an acceptance testing conduct by the developed surroundings.

Beta Testing

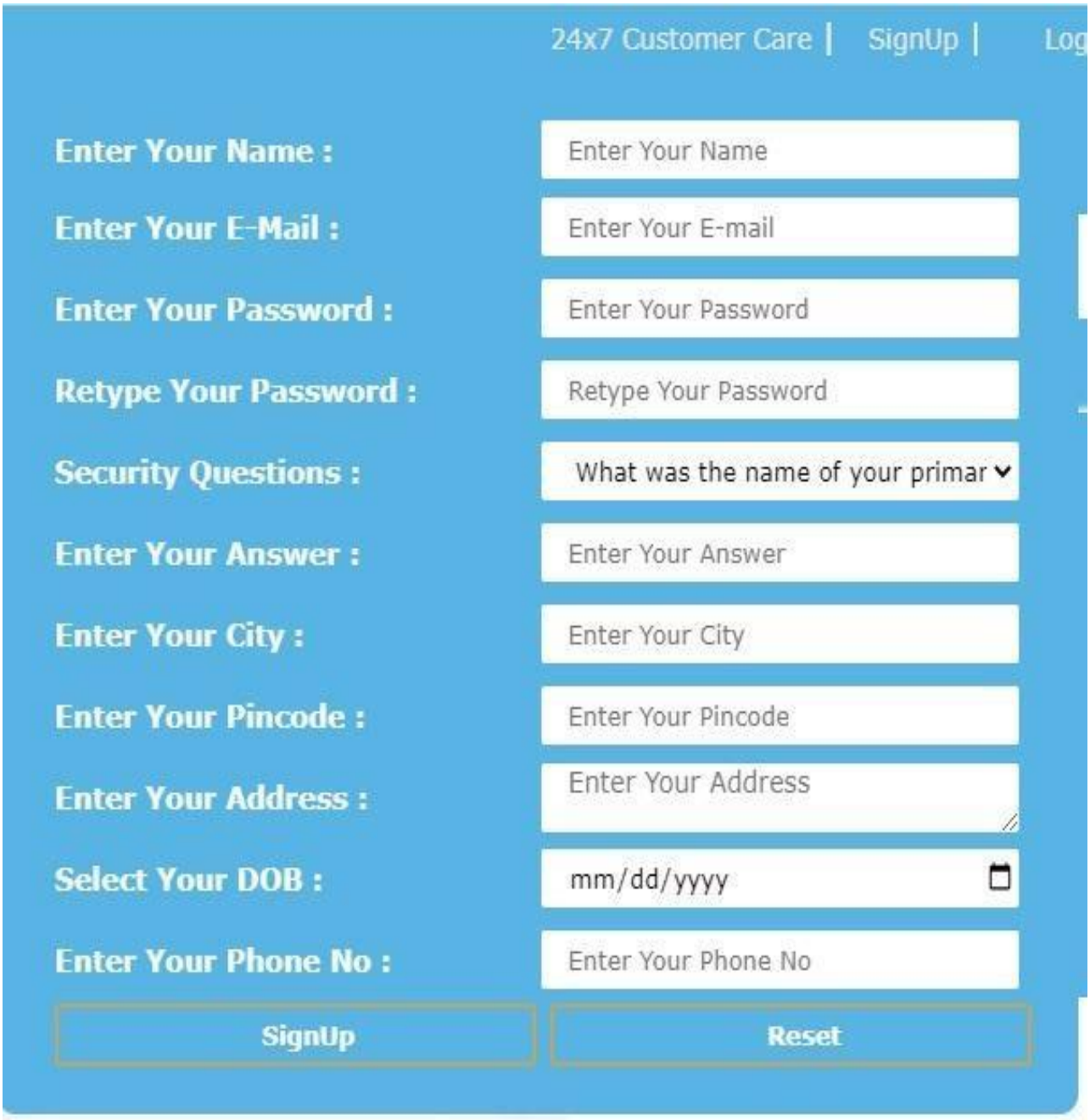
It’s an acceptance testing conducted by the multiple customers in the customer surroundings.

6.4 : Evaluation Partitioning

1	User name is alphabetic.	valid
2	User name is not alphabetic.	invalid
3	Password is equal to 10 or greater than 15 characters in length.	valid
4	Password is 2 to 16 characters in length.	invalid
5	Password include one uppercase letter & one lowercase letter.	valid
6	Password include '_'.	invalid
7	Email without '@' and '.com'.	invalid
8	Email with '@' and '.com'.	valid
9	Price only be numeric.	valid
10	Price is alphabetic.	invalid
11	Search product with alphabetic.	valid
12	Search product with special character (/,%,^,#,@).	invalid
13	No search product name entered	invalid
14	Brand name alphabetic	valid
15	Brand name with special character	invalid
16	Empty field	invalid

6.4.1 : Login interface

6.4.2 : Registration Layout



Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7

Conclusion and Future Enhancements

7.1. Future Enhancements

The project has been developed in a very short period of time and all effort have been taken so that is project is too much efficient and better is that in it executed there exist some scope of improvement in our project. The following list some of the enhancement of our project that can be added some other efficient task programs incorporates into the project or our tool.

Application of our project can be done more accurately and efficient. Database management and all the maintenance can be update of our system. Which helps the administrator more security measures can be taken?

There are also few features that in which can be integrated with this system to make it more flexible .below the list shows the future points to be considered in our project.

1. Add billing system in our project.
2. Add Staff Salary system in our project.

7.2. Achievements and Improvements

The biggest achievements here are that we were able to enhance our skills to the professional extend that we learned in four years of studying and apply it to this project. We learned software architecture design techniques, UML modeling, project management, testing and much more, and were able to apply it all in this project. The next big achievement is the things we learnt during this project. New languages, frameworks, libraries, different software's for diagrams Database. All that will be useful for us in our futures. We learn Creative thinking.

7.3. Critical Review

The critical element of our system is: Is our system is fast moving, give user friendly interface, not very costly, fulfill the specific requirements of the users at a runtime, has all the features which any organizations can require. To manage all these aspects it took lot of time and hard work.

7.4. Lessons Learnt

We absorb very much from this project. This project sharpens our skills in vs code and XAMPP server many other tools and many management concepts as well as how to deal witha problem and Project Report. As well as technical skills this project also enhances our personal development skills such as team working, dedication.

7.5: Conclusion

The "**SWEET SHOP MANAGEMENT SYSTEM** " is successfully developed and designs to satisfying the necessary requirements, as recognized in the requirements analysis phase, such as the system is very much user friendly, form level validation and field level validation are performing very professionally. The old manual system was suffer from a series of drawbacks. The present project has been developed to meet the aspiration indicate in the modern age

CHAPTER NO 8
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