

ONLINE BAKERY SYSTEM

Bhoovika V-19Z310
Dhanavandhana K-19Z311
Jayasree B S-19Z322
Nivedha K-19Z336
Selva Keerthana B G-19Z346
Niranjan-20Z463

Dissertation submitted in partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

Branch: COMPUTER SCIENCE AND ENGINEERING

of Anna University



November 2021

DEPARTMENT OF MECHANICAL ENGINEERING
PSG COLLEGE OF TECHNOLOGY

(Autonomous Institution)

COIMBATORE – 641 004

SYNOPSIS

The Online Bakery system is based on ordering and selling bakery items. It provides the customers online ordering facilities from their homes. The system provides a convenient interface for User Registration, look through various categories, filter items based on category, place the order and they can also customize their orders. The system has both admin and customer views. Admin can add a category and an item into the list of items. He can also delete those items which are not in stock. Admin can view customer order details and customization details. The system also allows admin to view the feedback provided by the customers. Customers can view the bakery items and can add the items into the cart which they want to buy. Once the customer confirms the order, an email will be sent to the customer which contains the customer order details and the bill.

This system also provides the customers to customize the bakery items according to their priorities. The customer is also provided with a feedback option. Our bakery system is user friendly and helps customers with their customization.

CONTENTS

Synopsis.....	1
Chapter1.....	3
1.1. Purpose.....	3
1.2. Product Scope.....	3
1.3. Overall Description.....	4
Chapter2.....	6
2.1. Registration.....	6
2.2. Login.....	7
2.3. Managing the system.....	7
2.4. Placing the order.....	8
2.5. Give Feedback.....	9
2.6. Logout.....	9
Chapter3.....	10
3.1. Architectural design.....	10
3.2. Architecture diagram.....	11
3.3. Uml diagrams.....	12
Chapter4.....	17
4.1. Data design.....	17
4.2. Human interface design.....	21
4.3. Screen objects and actions.....	27
Chapter5.....	28
5.1. Atom.....	28
5.2. Visual studio ID.....	29
5.3. MongoDB.....	32
5.4. Nodejs.....	33
5.5. Express framework.....	34
Conclusion.....	36
References	38

CHAPTER 1

INTRODUCTION

1.1 Purpose

The Online Bakery system is based on ordering and selling bakery items. It provides the customers online ordering facilities from their homes. The system provides a convenient interface for User Registration, look through various categories, Items Search, filter items based on price or category. The system has both admin and customer views.

1.2 Product Scope

The Online Bakery System is developed by keeping in mind the features of an e-commerce site. The online bakery system software project acts as a central database containing various bakery products. It provides customers with online shopping facilities from their homes. This application will also help the owner of the cake shops to manage their sales activity with great ease. This project aims to computerize sales operations and made to customers.

The main modules of the system include:

- **User Registration:** Users can register on the system and get their online account on site.
- **User Login:** Users can log in to the system and check various bakery items.
- **Product Categories:** The bakery products are arranged and can be viewed in categories.
- **Add to cart:** Users can add new items to the cart.
- **Custom Cake:** The user may order a custom cake as per his needed flavor, size, and shape on site.
- **Email confirmation:** On confirmation of the order, a thank you message is sent to the user.

1.3 Overall Description

1.3.1 Product Perspective

Online bakery system is a web-based software where the customers can order bakery items like cake, Candys, bread and buns, snack items, etc., from anywhere. It is a user-friendly website that saves time and cost. Customers cannot miss their favorite items while ordering through this website because customers can filter their favorite times. It will also help customers to remember their special days.

1.3.2 Product Functions

- Users (admin or customer) can log in to the system whenever they want to perform any functions
- Admin will be able to change the list of items available and their quantity
- Admin can view the customer's order details
- Customers can update their profile anytime they want
- Customers will be notified prior through their emails if they marked any events (like birthdays, anniversaries, etc.)
- Customers can design their own bakery items
- Customers can filter the items based on categories and varieties
- Customers can give ratings and feedback

1.3.3 User Classes and Characteristics

- Admin – Admin has full access to the system. Admin has to keep on updating the information (like updating the available items, cost, etc..) and has to maintain the system.
- Customer –customers have to register in order to place the order. They can order the item whenever they want. Customers can filter and categorize the list of items and they can customize their bakery items.

1.3.4 Operating Environment

Particulars	Specifications
Operating system	Windows 10
Processor	1GHz or High Processor
Hard disk	500 MB
RAM	512 MB

1.3.5 Design and Implementation Constraints

Online bakery system is running 24 hours a day. The information of all customers, items, and details must be available in the database that is accessed by the website. Software must be user-friendly and display the appropriate error message. Every customer must have a unique username and password. Customers must give a valid location to deliver the orders. It is mandatory to fill all the text boxes and it contains sufficient data. Data redundancy and the use of special/blank characters must be avoided.

1.3.6 User Documentation

Customers can get help from the user manual to use the system efficiently. The user manual also has a video that explains how the system works.

1.3.7 Assumptions and Dependencies

- The user must have a good internet connection to use the system.
- The user has to login into the system in order to use any functions.
- Only the admin has full access to the website.
- Customers must register only through the valid details.
- Users can give feedback by experiencing the system.

CHAPTER 2

SYSTEM FEATURES^[1]

2.1 Registration

2.1.1 Description and priority

The registration feature of the online bakery system allows external users to register a new user account. Registration is of **high priority** because only when a user is registered, He/She may be able to log in and place the order.

2.1.2 Stimulus and response

The external user will be asked to register only when he/she doesn't have an account. Once the external user registers, he can make use of the account at any time to access the website.

2.1.3 Functional requirements

REQ 1: The external user needs to click the sign-up option to register.

REQ 2: The system provides the external user with the registration form with username, email id and the user should create a password for his account.

REQ 3: The user has to fill in the correct details in the form and submit it.

REQ 4: If all the details are entered correctly and if it is valid, An account will be created for the user to access the website.

Exceptions:

- Occurs when the user inputs an invalid entry or misses any entry into the form.
- Occurs if the user account already exists.

2.2 Login:

2.2.1 Description and priority:

The login feature of the online bakery system allows external users to log in to his/her account. This has equal priority to registration because only if the user is registered and logged in, he will be able to access the website and place the order.

2.2.2 Stimulus and response:

The user will be asked to log in only when he/she has an account. Once the external user logged in, he can make use of the account at any time to access the website.

2.2.3 Functional requirements:

REQ 1: The external user needs to click the **Login** option to log in.

REQ 2: The system provides the user with the login form with the email id and the password created during the registration process.

REQ 3: The user has to fill in the correct details in the form.

REQ 4: If all the details are entered correctly and if it is valid, The user will be able to access the website.

Exceptions:

- Occurs when the user inputs an invalid mail id or password.
- Occurs if the user account does not exist.

2.3 Managing the system:

2.3.1 Description and priority:

The admin manages the whole online bakery system. He can view the bakery items, manage items. Also, The admin can view the user's order details.

2.3.2 Stimulus and response:

The admin can view the bakery items, add a new item if needed, and delete it if it is out of stock. Also, The admin can view the user's order details.

2.3.3 Functional requirements:

REQ 1: Add item - The system shall have a feature for the admin to add items and their details such as the name of the item, short description, price, etc.

REQ 2: Remove item - The system shall have a feature for the admin to remove items once they move out of stock.

REQ 3: User and order information – The admin has the option to view the list of registered users. He can also view the orders made by the users.

2.4 Placing the order:

2.4.1 Description and priority:

This feature of the online Bakery system allows customers to order the items they need. This is also of **high priority** because it is the **main objective** of the system.

2.4.2 Stimulus and response:

The customer will be asked to log in to the system to place an order. Once the customer logs in, he can select the items he/she wants.

2.4.3 Functional requirements:

REQ 1: Login -Customer should have logged in for placing the order.

REQ 2: Filter and select the items - The system shall have a filter function so that the customer can view items category-wise and select according to their wish and add them to their wishlist. If the user selects a particular item, he/she will be able to view the description of that item.

REQ 3: Cart– The customer will also have an option to view their wishlist before placing the order. They can check once again and click confirm to place the order.

REQ 4: Customize orders- Customers can customize the items based on their preferences. They can modify the item design according to their needs at the time of placing the order.

2.5 Give Feedback:

2.5.1 Description and priority:

This feature of the online Bakery system allows customers to give their feedback about a particular product.

2.5.2 Stimulus and response:

The customer can give their feedback.

2.5.3 Functional requirements:

REQ 1: The user can give feedback by just clicking that particular item available.

REQ 2: Based on the feedback given by the user, best-selling items will be suggested to the user based on analysis.

2.6 Logout:

2.6.1 Description and priority:

This feature of the online Bakery system allows customers to log out of his/her account.

2.6.2 Stimulus and response:

The user will not be able to access the website after clicking the logout option. He will have to log in again to access. This has no priority because it is the user's own wish to log out.

2.6.3 Functional requirements:

The user can log out by just clicking the logout option available.

CHAPTER 3

SYSTEM ARCHITECTURE

3.1 Architectural Design

Online Bakery System is divided into 4 modules:

- Login Module
- Customer Module
- Admin Module
- Logout Module

The modules are divided in such a way that each type of user has their usability to the application clearly defined. They work together to achieve the complete functionality of the system.

1)Login Module.

Login module can be accessed by both the customers and the administrator.

SUB Modules corresponding to Login are:

1. User Registration
2. User Login
3. Admin Login

Tables associated with Login Module are:

1. User table

2)Customer Module

When the customer logs in to the online bakery system, he/she can filter bakery food.

items based on their preferences, select a bakery item, can add it to their wishlist, place order and can make online payment.

SUB Modules associated with Customer Module are:

1. Filter items
2. Select items
3. Add to wishlist
4. Place order
5. Give customized orders
6. Give Feedback

Tables associated with Customer Module:

1. Carts table
2. details table
3. customizes table

3)Admin Module

When the admin logs in to the system, he/she can add an item, view the bakery items

added and can also view the order details of the customers.

SUB Modules associated with Admin Module are:

1. Add an item
2. View the items
3. View user's order details

- 4.Add a category
- 5.View user's feedback
- 6.View users customized orders
- 7.Send confirmation mail

Tables associated with Admin Module:

1. Products table
- 2.categories table

4)Logout Module

When the customer/Administrator finishes their work, they can log out of the System.

3.2 ARCHITECTURE DIAGRAM - ADMIN

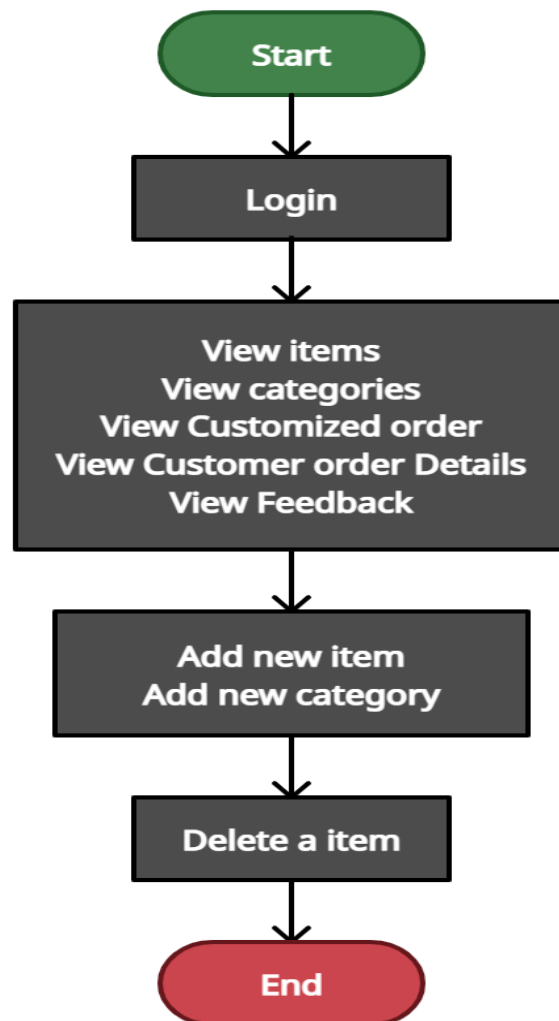


Fig 3.1 Flowchart – ADMIN

CUSTOMER

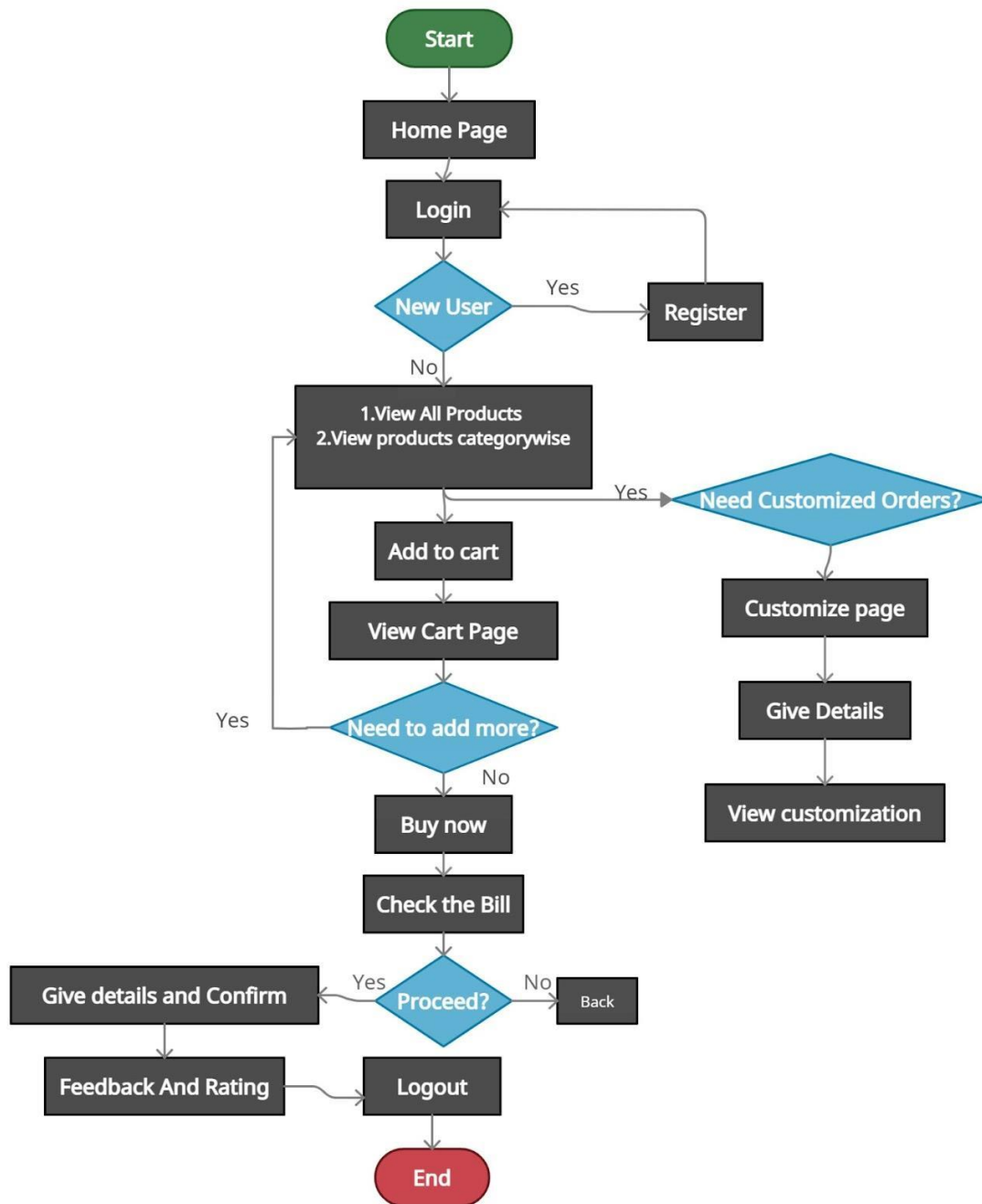


Fig 3.2 Flow chart – CUSTOMER

3.3 UML DIAGRAMS:

3.3.1 USE CASE DIAGRAM:

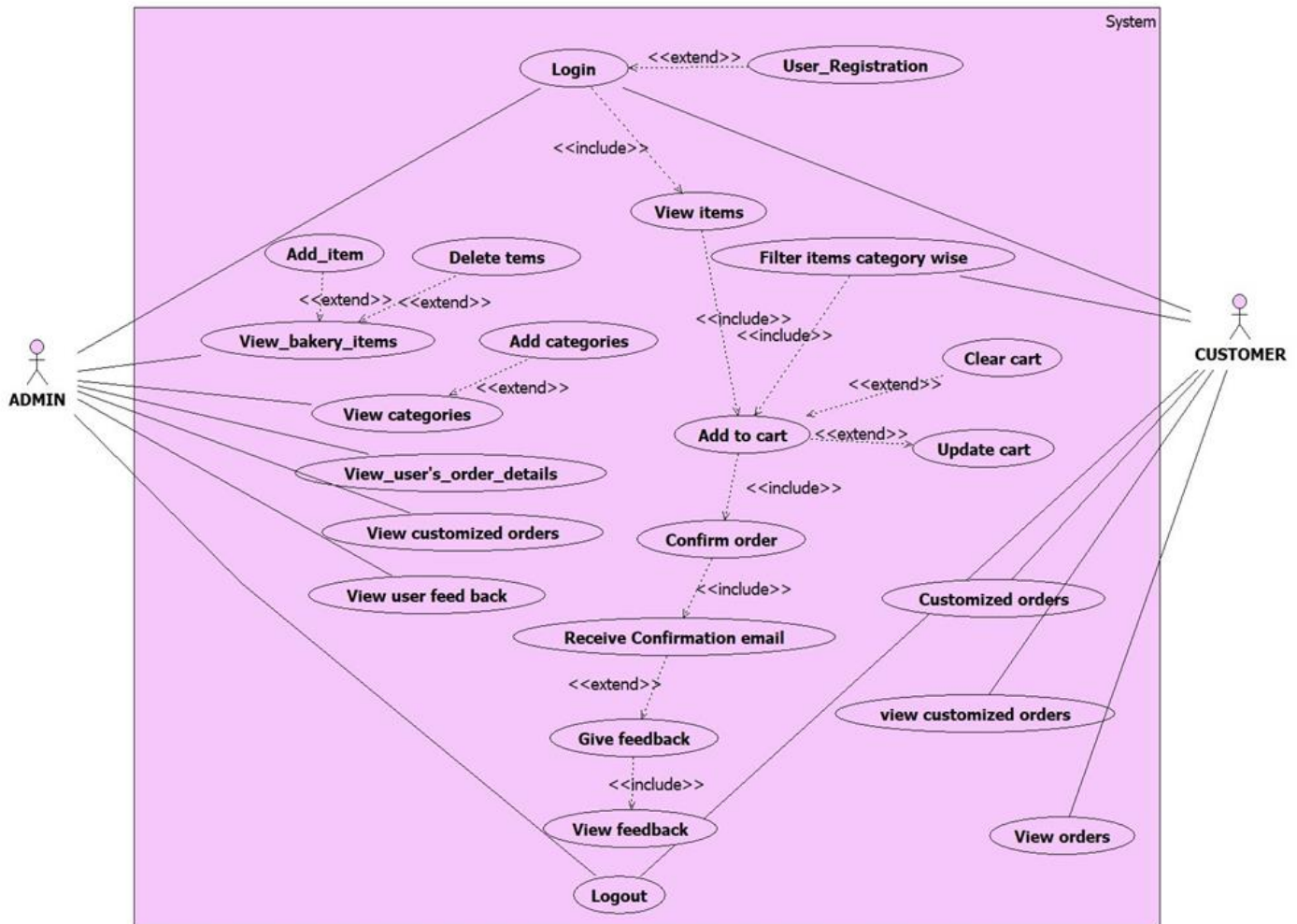


Fig 3.3 Use Case Diagram

3.3.2 ACTIVITY DIAGRAM:

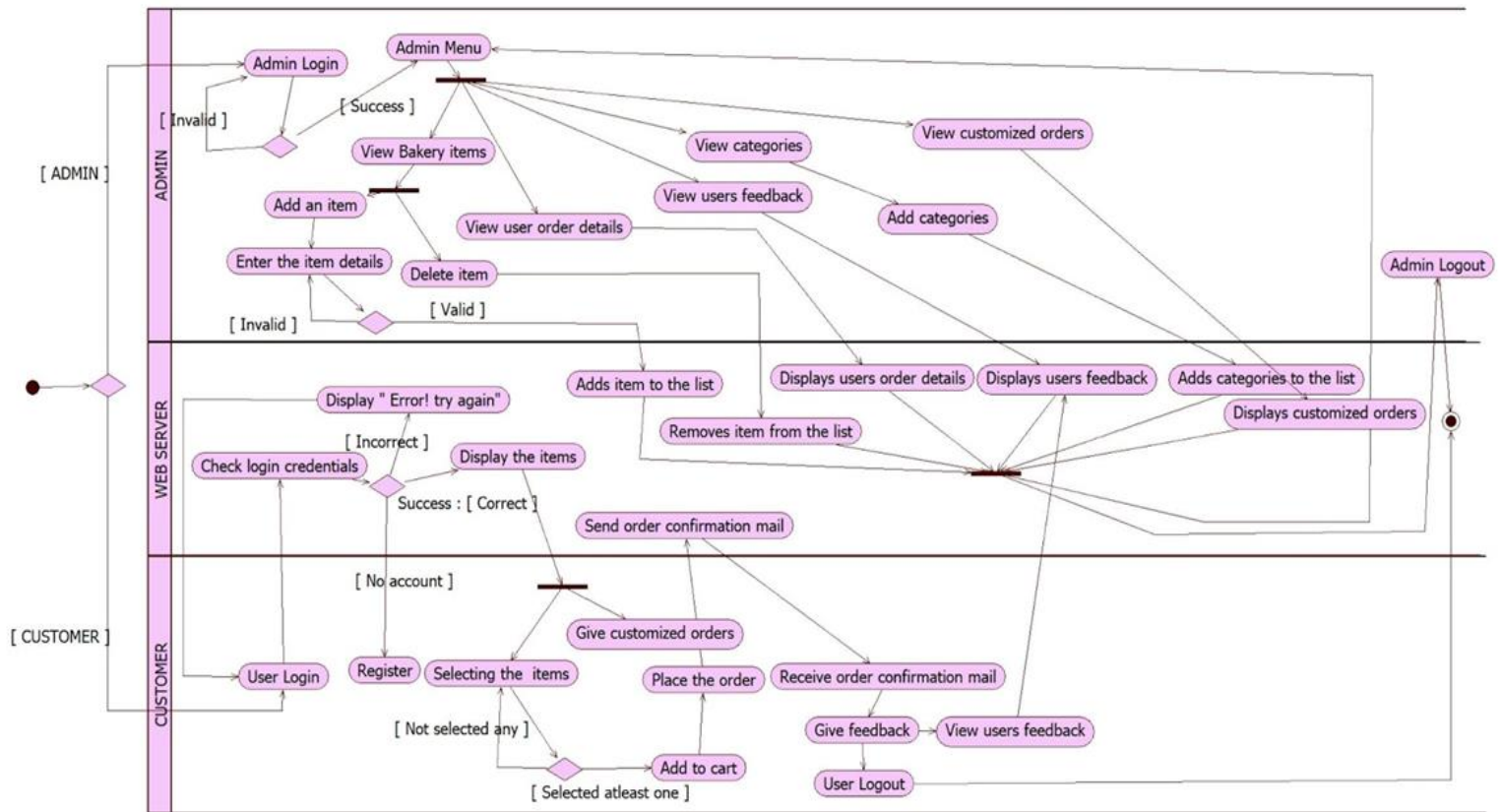


Fig 3.4 Activity Diagram

3.3.3 COLLABORATION DIAGRAM:

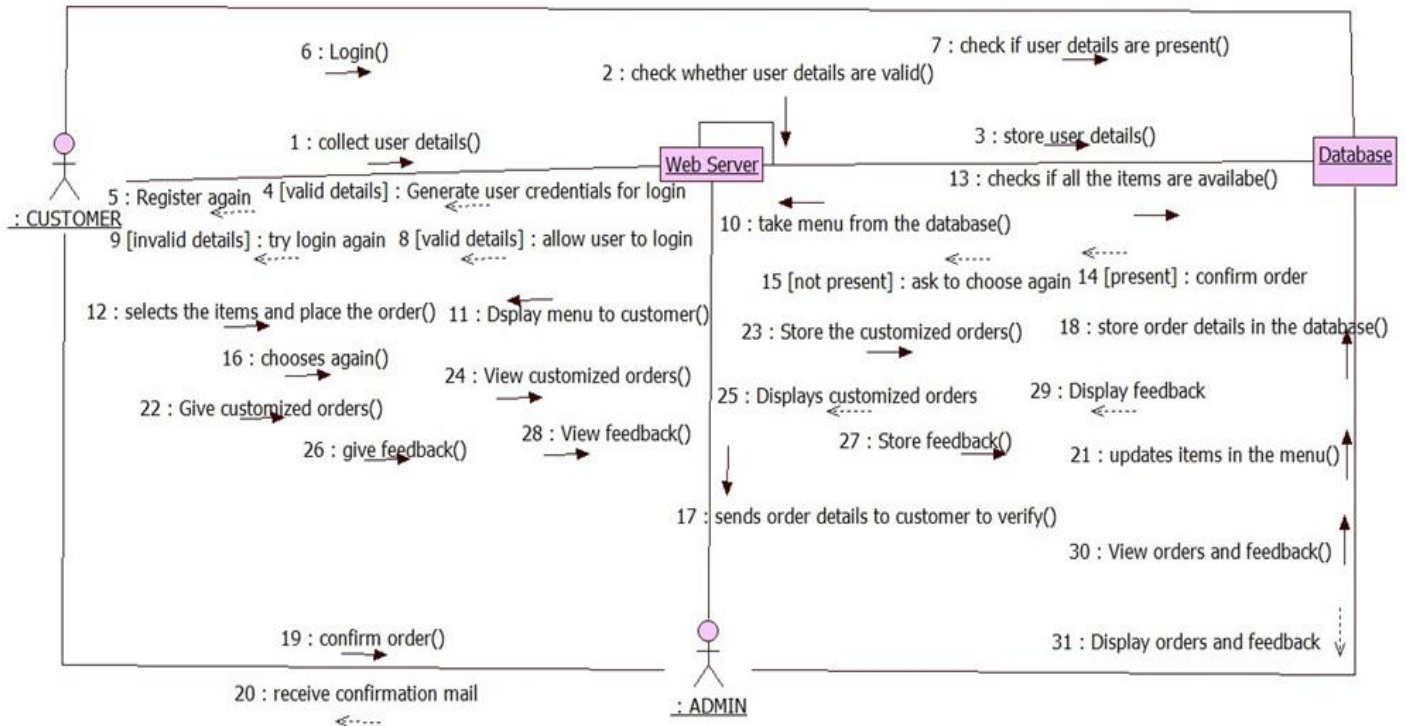


Fig 3.5 Collaboration Diagram

3.3.4 SEQUENCE DIAGRAM:

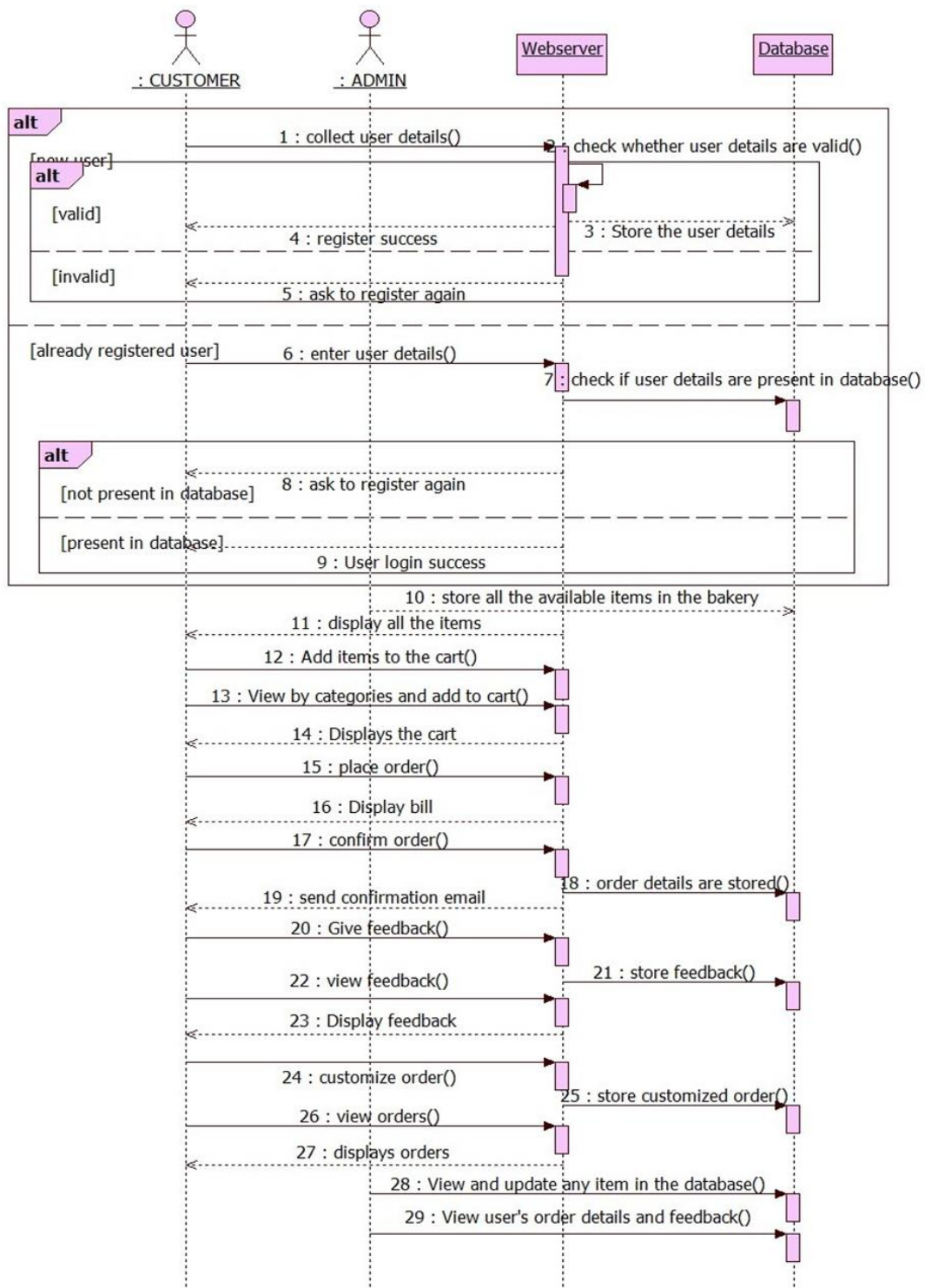


Fig 3.6 Sequence Diagram

3.3.5 STATE MACHINE DIAGRAM:

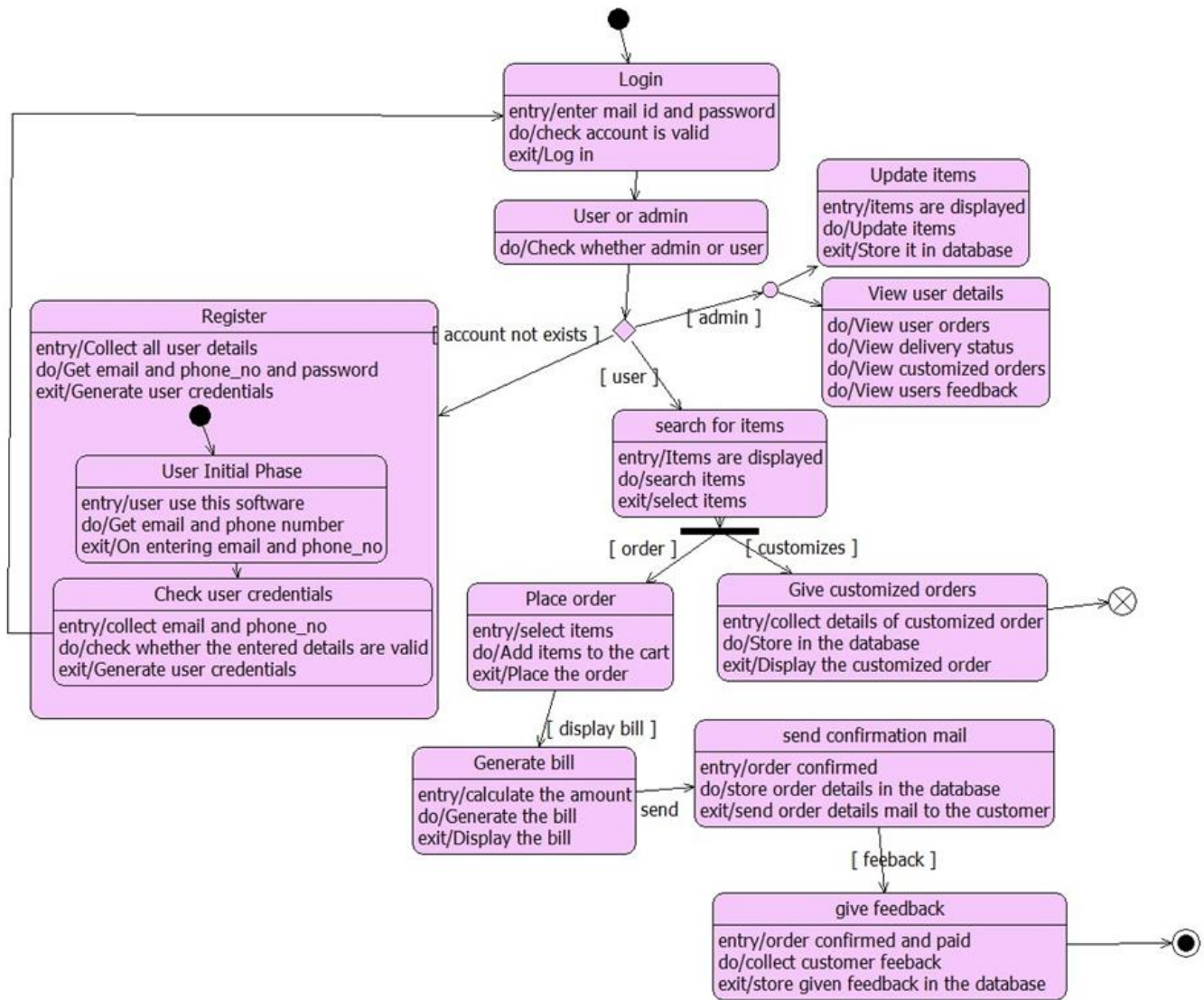


Fig 3.7 State Machine Diagram

CHAPTER 4

IMPLEMENTATION

4.1 DATA DESIGN

4.1.1 Data Description

The data used in the online bakery system is stored in a database. The data are stored in the form of tables in relational databases and in the form of documents in non relational databases. The database of this application is stored in mongoDB

4.1.2 Data Dictionary

Table name: User

-Contains the user's information.

Table 4.1 User

Column name	Data type	Description
user_id	int	primary key
email_id	varchar	stores user's email_id
password	varchar	used to verify the user

Table name: Products

-Contains the products information

Table 4.2 Product

Column name	Data type	Description
id	int	primary key
name	varchar	Stores product name
desc	varchar	Stores the description
price	int	stores the price of an item
image	varchar	stores the image

Table name: posts

- Contains the user's post information

Table 4.3 Posts

Column name	Data type	Description
id	int	primary key
title	varchar	stores the title name

content	varchar	a short description about the bakery item
star	int	Stores the star

Table name : Details

Table 4.4 Details

Column name	Data type	Description
id	int	primary key
time	varchar	specifies the ordered time
user_id	varchar	stores the id of the users
address	varchar	stores the address of place where order has been placed
Phone	varchar	Stores the phone number of user
cart	int	stores the cart details

Table name : Customizes

Table 4.5 Customizes

Column name	Data type	Description
id	int	primary key
time	varchar	specifies the ordered time
user_id	varchar	stores the id of the users
occasion	varchar	stores the occasion the user wish
special	varchar	Stores the special cake
flavor	varchar	Stores the flavor of the cake
type	varchar	Stores the type of the cake
weight	int	Stores the weight of the cake
toppings	varchar	Stores the toppings
about	varchar	What should be written on the cake

Table name : Categories

Table 4.6 Categories

Column name	Data type	Description
id	int	primary key
title	varchar	specifies the title for category

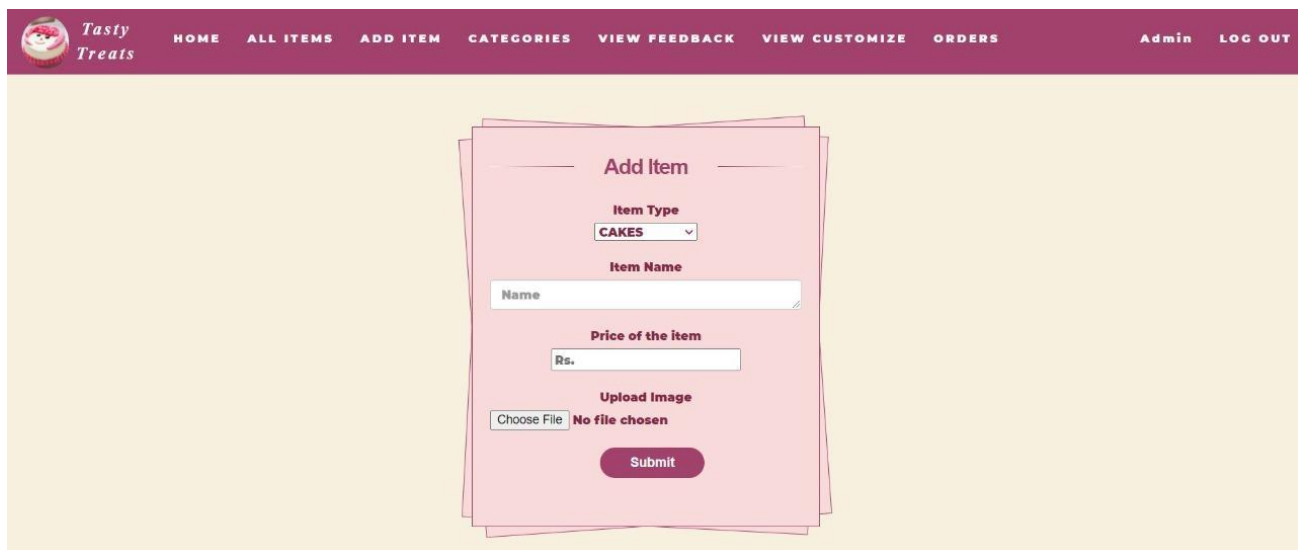
4.2 HUMAN INTERFACE DESIGN

4.2.1 Overview of User Interface

This application is to book bakery items in Online mode, it saves staff time. At first the user has to sign-up with all the required information that is asked in the sign-up page and create their own account. And login using mobile number or mail-id as username and enter the password. To place the order, select cake type, flavor, delivery date etc..and by giving buy now, it asks for the address and Mobile number and users orders will be placed.

4.2.2 Screen Images

Add Item:



The screenshot shows the 'Add Item' form within the Tasty Treats application. The form is displayed as a pink card with a slight 3D effect, centered on a light yellow background. The application's header is a dark purple bar containing the logo and navigation links. The form itself includes a dropdown menu for 'Item Type' (set to 'CAKES'), a text input for 'Item Name', a text input for 'Price of the item' (prefixed with 'Rs.'), a file upload section with a 'Choose File' button and 'No file chosen' text, and a 'Submit' button.

Tasty Treats HOME ALL ITEMS ADD ITEM CATEGORIES VIEW FEEDBACK VIEW CUSTOMIZE ORDERS Admin LOG OUT

Add Item

Item Type
CAKES

Item Name
Name

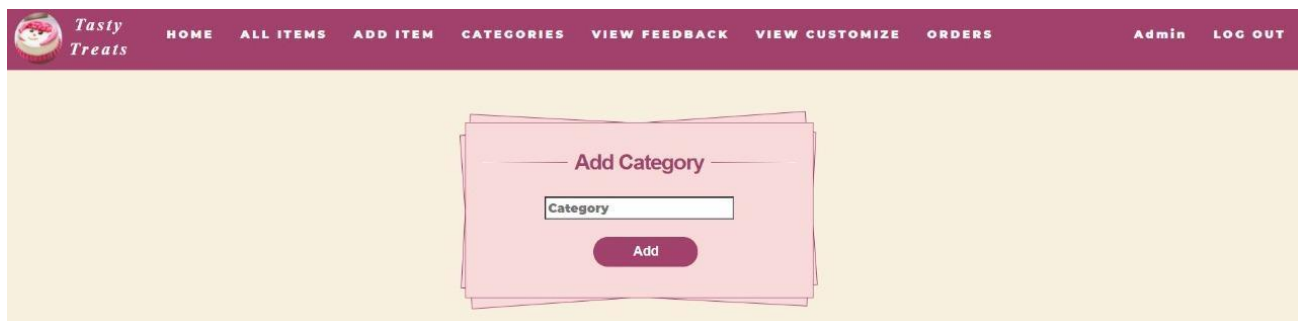
Price of the item
Rs.

Upload Image
Choose File No file chosen

Submit

Fig 4.1 Add Item

Add Category:



The screenshot shows the 'Add Category' form within the Tasty Treats application. The form is displayed as a pink card with a slight 3D effect, centered on a light yellow background. The application's header is a dark purple bar containing the logo and navigation links. The form itself includes a text input for 'Category' and an 'Add' button.

Tasty Treats HOME ALL ITEMS ADD ITEM CATEGORIES VIEW FEEDBACK VIEW CUSTOMIZE ORDERS Admin LOG OUT

Add Category

Category

Add

Fig 4.2 Add Category

All Items:

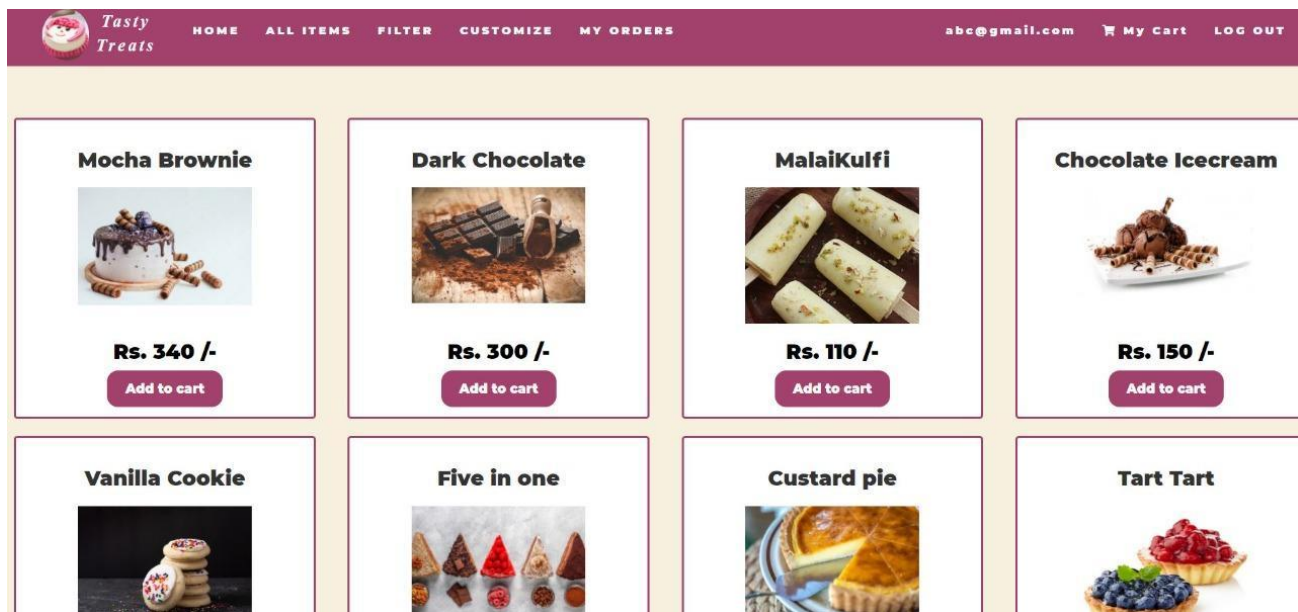


Fig 4.3 All Items

Customize:

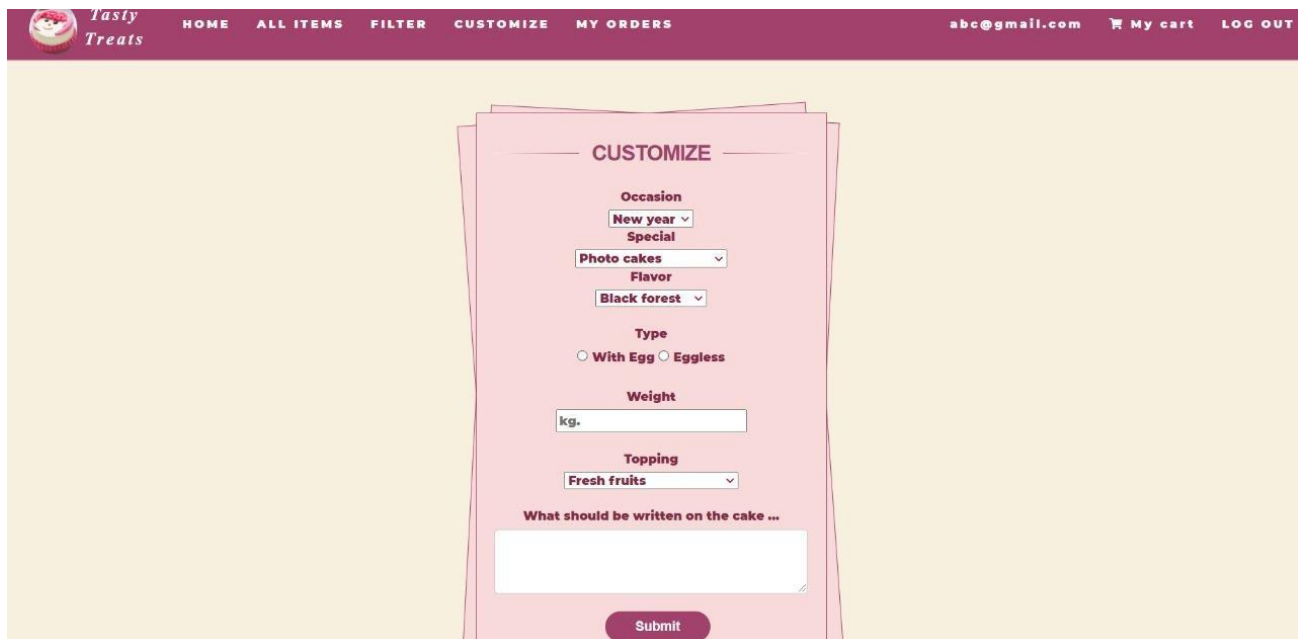


Fig 4.4 Customize

Cart:

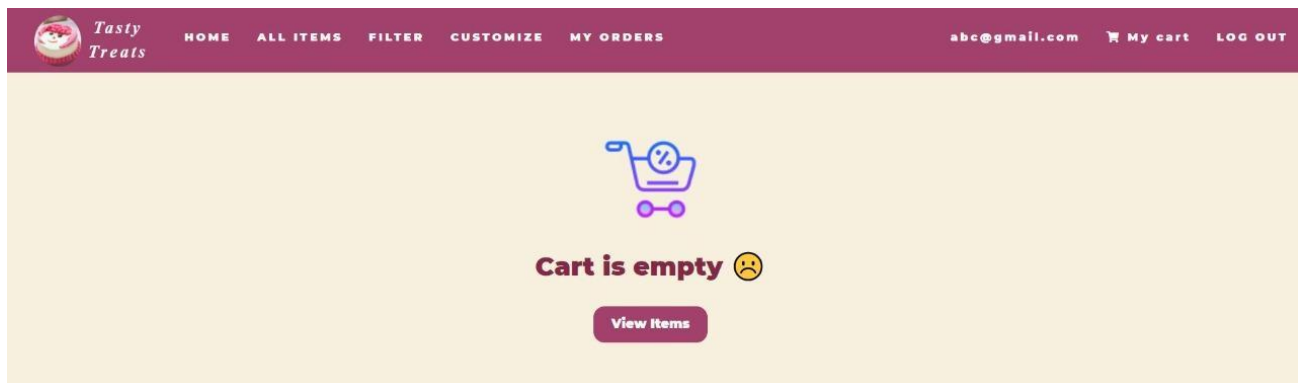


Fig 4.5 Cart

My Cart:

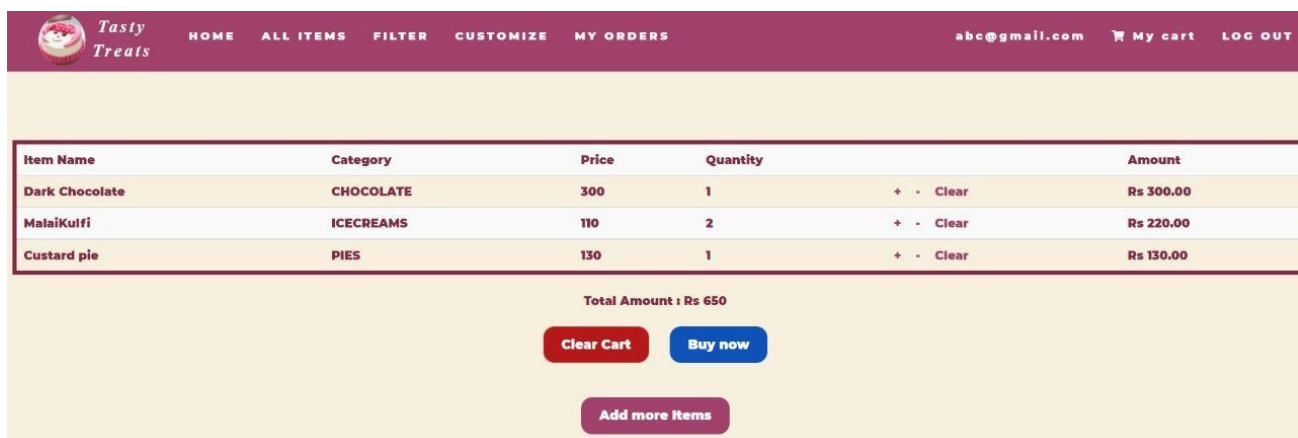



Fig 4.6 My Cart

Bill:


HOME ALL ITEMS FILTER CUSTOMIZE MY ORDERS
abc@gmail.com My cart LOG OUT

Bill

Item Name	Category	Price	Quantity	Amount
Dark Chocolate	CHOCOLATE	300	1	Rs 300.00
MalaiKulfi	ICECREAMS	110	2	Rs 220.00
Custard pie	PIES	130	1	Rs 130.00

Total Amount : Rs 650

Address

ABC

Phone

9876543210

Back Confirm

Fig 4.7 Bill

Order Page :


HOME ALL ITEMS ADD ITEM CATEGORIES VIEW FEEDBACK VIEW CUSTOMIZE ORDERS
Admin LOG OUT

Order ID : 618ce2437cf359e742cad409

UserID : abc@gmail.com

Date : Thursday, November 11

Item Name	Category	Price	Quantity	Amount
Dark Chocolate	CHOCOLATE	300	1	Rs 300.00
MalaiKulfi	ICECREAMS	110	2	Rs 220.00
Custard pie	PIES	130	1	Rs 130.00

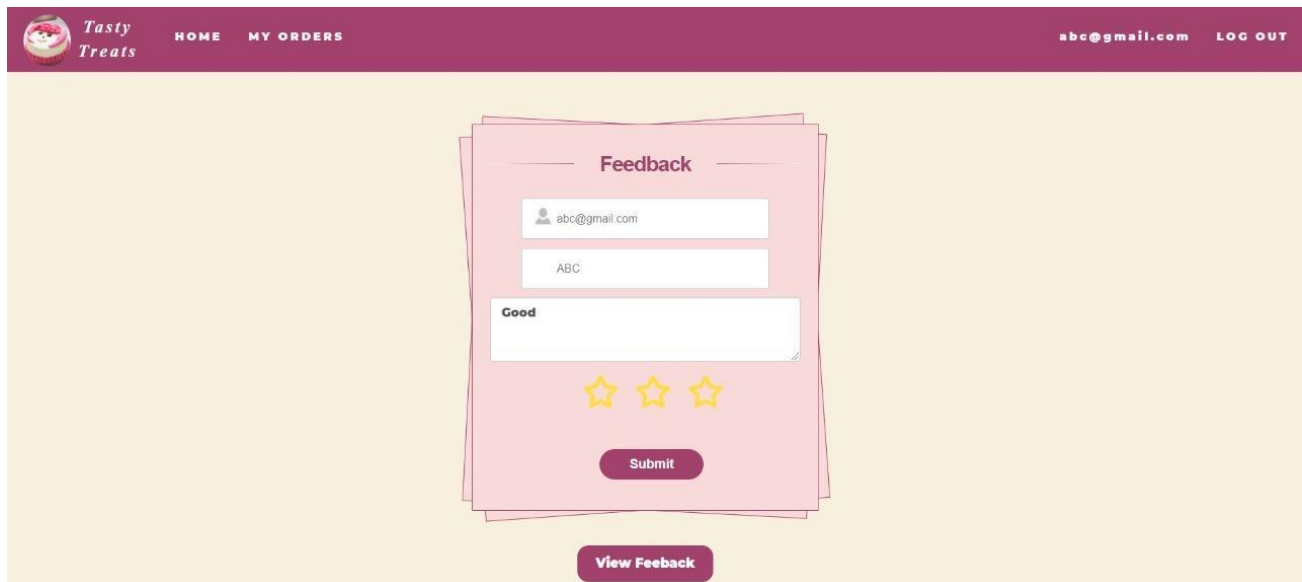
Total Amount : Rs 650

Address : abc

Mobile No. : 9876543210

Fig 4.8 Order page

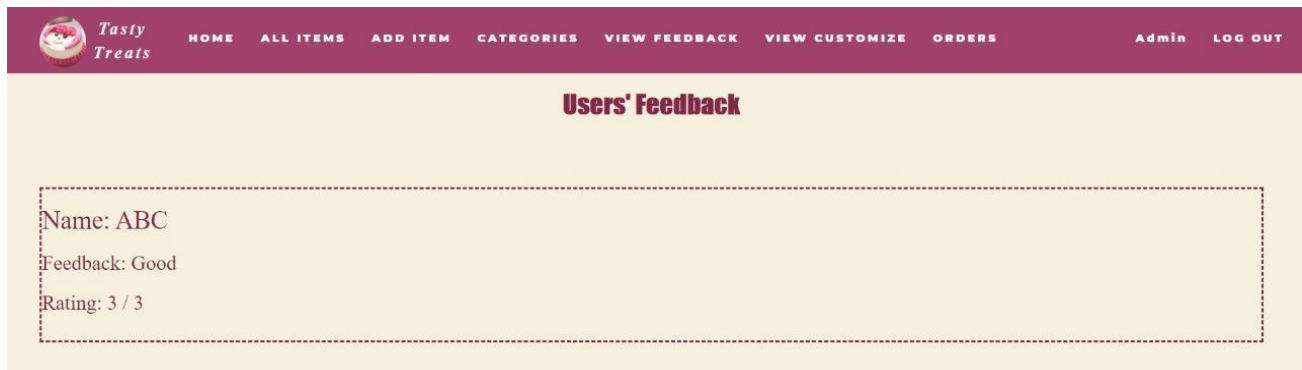
Feedback:



The image shows a web browser window with a maroon header. The header contains the 'Tasty Treats' logo on the left, navigation links 'HOME' and 'MY ORDERS' in the center, and user information 'abc@gmail.com' and a 'LOG OUT' link on the right. The main content area has a light beige background. In the center, there is a pink, layered paper effect containing a 'Feedback' form. The form has a title 'Feedback' at the top. Below it are three input fields: the first contains 'abc@gmail.com', the second contains 'ABC', and the third contains 'Good'. Below the text fields are three yellow stars for rating. At the bottom of the form is a maroon 'Submit' button. Below the pink overlay, centered on the page, is a maroon button with the text 'View Feedback'.

Fig 4.9 Feedback

Users' Feedback:



The image shows a web browser window with a maroon header. The header contains the 'Tasty Treats' logo on the left, navigation links 'HOME', 'ALL ITEMS', 'ADD ITEM', 'CATEGORIES', 'VIEW FEEDBACK', 'VIEW CUSTOMIZE', and 'ORDERS' in the center, and user information 'Admin' and a 'LOG OUT' link on the right. The main content area has a light beige background. In the center, the text 'Users' Feedback' is displayed in a bold, maroon font. Below this text is a large rectangular area with a dashed maroon border. Inside this area, the following text is displayed: 'Name: ABC', 'Feedback: Good', and 'Rating: 3 / 3'.

Fig 4.10 Users' Feedback

4.3 SCREEN OBJECTS AND ACTIONS

A discussion of screen objects and actions associated with those objects.

4.3.1 SIGNUP Screen:

Username - Username can be users mail-id

Password- Password should be at least 8 characters(it should be a combination of uppercase letter, lowercase letter, numbers and special characters). It should be unique for every user.

SIGNUP- If the user enters the username and unique password, it will take the user to the create account screen.

4.3.2 LOGIN Screen

Username - Enter username as email or mobile number which is used to sign up.

Password - Enter the unique password.

LOGIN - If the username and password are valid it will take the user to the choose cake screen.

4.3.3 ADD TO CART

Select the items and click add to cart.

4.3.4 BUY NOW

Address: User should enter the correct delivery address.

Mobile Number:User should enter the valid mobile number.

BUY NOW:User can click buy now to confirm order.

4.3.5 FEEDBACK FORM

Mail ID:User should enter the mail id

Name:User should enter the name

Feedback:User can type their feedback

Star Rating:User can give their rating

SUBMIT: User can submit the feedback

4.3.6 GIVE CUSTOMIZED ORDERS:

Cake type - Users should choose the type of cake(like biscuit cake, butter cake, sponge cake, etc..)

Cake flavor - Users should choose their flavor like chocolate, vanilla, cheesecake, etc..

Occasion and special - Users should choose their special occasion(birthdays, weddings etc..)

Weight- User should choose the weight of the cake.

To be written on the cake: The user can type in the text to be written on the cake

4.3.6 MENU Screen:

ADD CATEGORY- Admin can add a new category

ADD ITEM- Admin can add a new item by giving the name,category and price and image of the item.

DELETE ITEM - Admin can delete the list of items.

CHAPTER-5

TOOLS USED

5.1.ATOM

Atom was released by GitHub after Sublime Text.[\[19\]](#). It's a fully customizable text

editor. Since Atom is written in HTML, CSS, and JavaScript, you can customize it yourself once you've learned those languages.

Atom is a free text editor created by Github. Atom is *open source*, meaning that all the code is available for you to read, modify for your own use and even contribute improvements. Atom is “the hackable text editor,” because it is highly customizable. Atom provides a tree view of your project, so you can conveniently navigate to different folders and files. Atom lets you choose from over 1,300 different themes to suite your color preferences and optimize code readability. Themes are broken down into two categories: UI and syntax. Packages are special add-ons that further customize your coding experience with Atom. For example, you may want a package that highlights syntax errors as you code. Such packages are called *linters*.

Installing Atom in windows

- Go to atom.io
- Click the Download Windows Installer button
- Run the downloaded AtomSetup.exe file
- Atom will launch once the installation completes
- Atom will automatically update when a new version is available

5.2.VISUAL STUDIO IDE

An *integrated development environment* (IDE) is a feature-rich program that

supports many aspects of software development. The Visual Studio IDE[\[18\]](#) is a creative launching pad that you can use to edit, debug, and build code, and then publish an app. Visual Studio is available for Windows and Mac. Visual Studio for Mac has many of the same features as Visual Studio for Windows, and is optimized for developing cross-platform and mobile apps. Some popular features in Visual Studio that improve your productivity when developing software include:

- Squiggles and Quick Actions
- Code Cleanup
- Refactoring
- IntelliSense
- Visual Studio search
- Live share
- Call Hierarchy
- CodeLens
- Go To Definition
- Peek Definition

Visual Studio's debugging system lets you step through code one statement at a time and inspect variables as you go. You can set *breakpoints* that stop execution of the code at a particular line, and observe how the variable value changes as the code runs. You can personalize the Visual Studio user interface, including changing the default color theme.

How to download and install visual studio :

Step 1 - Download Visual Studio

First, visit the following Visual Studio free download link

<https://visualstudio.microsoft.com/downloads/>

Step 2 - Open the .exe file

Click on the downloaded exe file

Step 3 - Start the installation

In the next screen, click continue to start Visual Studio installation

Step 4 - Let the installation complete

Visual Studio will start downloading the initial files. Download speed will vary as per your internet connection.

Step 5 - Choose the software version

In next screen, click install

Step 6 - Select the desktop version

1. Select “.Net desktop development”
2. Click install

Step 7 - Wait for the files to be downloaded

Visual Studio will download the relevant files based on the selection in step 6.

Step 8 - Reboot your PC

Once the download is done, you will be asked to reboot the PC to complete Visual Studio setup

Step 9 - Open Visual Studio

Post reboot, open the Visual Studio IDE

1.Select a theme of your choice

2.Click Start Visual Studio

Step 10 - Start using Visual Studio

In Visual Studio IDE, you can navigate to File menu to create new C# applications.

5.3.MongoDB

MongoDB is free to use[\[9\]](#).MongoDB is a distributed database at its core, so high availability, horizontal scaling, and geographic distribution are built in and easy to use.MongoDB stores data in flexible, JSON-like documents, meaning fields can vary from document to document and data structure can be changed over time.The document model maps to the objects in your application code, making data easy to work with.Ad hoc queries, indexing, and real time aggregation provide powerful ways to access and analyze your data.

MongoDB is designed to meet the demands of modern apps with a technology foundation that enables you through:

- The document data model – presenting you the best way to work with data.
- A distributed systems design – allowing you to intelligently put data where you want it.
- A unified experience that gives you the freedom to run anywhere – allowing you to future-proof your work and eliminate vendor lock-in.
- With these capabilities, you can build an Intelligent Operational Data Platform, underpinned by MongoDB.

Steps To install MongoDB

Step 1 — Download the MongoDB MSI Installer Package.

Step 2 — Install MongoDB with the Installation Wizard

- Make sure you are logged in as a user with Admin privileges. Then navigate to your downloads folder and double click on the .msi package you just downloaded. This will launch the installation wizard.
- Click Next to start installation.
- Accept the licence agreement then click Next.
- Select the Complete setup.
- Click Install to begin installation
- Hit Finish to complete installation

5.4.Nodejs

It is used for server-side programming, and primarily deployed for non-blocking, event-driven servers, such as traditional web sites and back-end API services, but was originally designed with real-time, push-based architectures in mind. Every browser has its own version of a JS engine, and node.[\[20\]](#)

Installation Steps

1. Download the Windows installer from [Nodejs.org](https://nodejs.org).
2. Run the installer (the .msi file you downloaded in the previous step.)
3. Follow the prompts in the installer (Accept the license agreement, click the NEXT button a bunch of times and accept the default installation settings).
4. Restart your computer. You won't be able to run Node.js until you restart your computer.

Make sure you have Node and NPM installed by running simple commands to see what version of each is installed:

- **Test Node.** To see if Node is installed, open the Windows Command Prompt, PowerShell or a similar command line tool, and type `node -v`. This should print the version number so you'll see something like this `v0.10.35`.
- **Test NPM.** To see if NPM is installed, type `npm -v` in Terminal. This should print the version number so you'll see something like this `1.4.28`
- **Create a test file and run it.** A simple way to test that node.js works is to create a simple JavaScript file: name it `hello.js`, and just add the code `console.log('Node is installed!');`. To run the code simply open your command line program, navigate to the folder where you save the file and type `node hello.js`. This will start Node.js and run the code in the `hello.js` file. You should see the output `Node is installed!`.

5.5. Express framework

Express.js, or simply Express, is a back end web application framework for

Node.js, released as free and open-source software under the MIT License. It is designed for building web applications and APIs. It has been called the de facto standard server framework for Node.js

Install Express.js

Firstly, you have to install the express framework globally to create web application using Node terminal. Use the following command to install express framework globally.

1. `npm install -g express`

Installing Express[\[21\]](#)

Use the following command to install express:

1. `npm install express --save`

The above command install express in node_module directory and create a directory named express inside the node_module. You should install some other important modules along with express. Following is the list:

- **body-parser:** This is a node.js middleware for handling JSON, Raw, Text and URL encoded form data.
- **cookie-parser:** It is used to parse Cookie header and populate req.cookies with an object keyed by the cookie names.
- **multer:** This is a node.js middleware for handling multipart/form-data.

CONCLUSION

The following are the challenges faced during the course of this project and development of the system.

- Storing and retrieving the customized order details in the database.
- Items added in the cart by a specific user were displayed to all the users.

Then it was overcome by filtering with the specific userID.

- Arranging the items in thumbnail fashion according to the image size.
- When clicking the delete option, the items are deleted in the database but not reflected in the page.
- Aligning the images and text in the Home page.
- Integrating all the modules.

In conclusion, this is basically a web-based software that allows the customers to place their orders which is our ultimate goal. We used HTML and CSS for frontend , Nodejs for backend and MongoDB for database and connection. This software has its own features.

- The interface is presented with a Home page where a user can sign-up if he/she is a new user or login.
- A new user can register and create an account with a valid E-mail address and a strong password.
- Once an account is created the user can login and is presented with a page where all the available items in the bakery are displayed.
- The system features a Cart system where the user can add all the items that

they need into the cart and proceed to buy as a package.

- The user can also view items by filtering the products based on their category.
- The user also has the option to provide customized orders where the system prompts you for Occasion, Type, Toppings, Flavour, and letterings.
- All the items that are added to the cart can be viewed on the My Cart page where the user can increase/decrease the quantity of the items selected. The user can also clear the cart with a click of a button. The page displays the total cost of the items for which the user can proceed to buy.
- After the user clicks on to buy, an invoice is generated which summarizes all the items purchased and the gross amount to be paid. This page prompts the user to enter the delivery address and contact information.
- On completion, the user will be directed to the feedback page where the user can share their feedback and give a star rating.
- An automated Email is sent to the user which generates the summary of purchase, items and amount to be paid.
- On the admin side, the administrator is to login using the same page discussed earlier with their valid credentials.
- Upon login, the admin can view all the items that are available on stock and can also delete the items that are out of stock.
- The admin has the functionality to add new items on stock on the Add Items page where the admin chooses the category, assigns the name, sets the price and uploads the image of the item. On submission, the product gets displayed on the All Items page.
- The admin gets to view all the feedback given by the customer, view the

customized orders and the order history.

REFERENCES

IDEA AND WEBSITE'S BASIC FEATURES:

1. <https://nevonprojects.com/online-bakery-shop-system/>
2. <https://github.com/payalpatra/Food-Ordering-System/tree/master/resources/views>
3. <https://www.irjet.net/archives/V8/i4/IRJET-V8I4940.pdf>
4. <https://limetray.com/blog/bakery-management-system-complete-guide/>
5. <https://www.osas.com/food/bakery>

ADD TO CART AND UPDATE CART:

6. <https://www.qandeelacademy.com/lesson/nodejs-shopping-cart-project/7M30JxBvpIU>

SENDING MAIL:

7. <https://nodemailer.com/about/>

SESSIONS:

8. <https://www.section.io/engineering-education/session-management-in-nodejs-using-expressjs-and-express-session/>

MONGO DB-DOCUMENTATION:

9. <https://www.mongodb.com/mongodb-architecture>

HTML,CSS,BOOTSTRAP,NODE js BASICS:

- 10.<https://devdocs.io/html/>
- 11.<https://developer.mozilla.org/en-US/docs/Web/CSS>
- 12.<https://getbootstrap.com/docs/4.1/getting-started/introduction/>
- 13.<https://nodejs.org/en/docs/>

CSS COLORS AND BUTTON GENERATOR:

- 14.<https://colorhunt.co/>
- 15.<https://css3buttongenerator.com/>

STAR RATINGS:

- 16.<https://uicookies.com/star-rating-css/>

UPLOAD IMAGE USING MULTER:

- 17.<https://medium.com/swlh/how-to-upload-image-using-multer-in-node-js-f3aeffb90657>

VISUAL STUDIO IDE DOCUMENTATION

- 18.<https://docs.microsoft.com/en-us/visualstudio/get-started/visual-studio-ide?view=vs-2022>

ATOM DOCUMENTATION

- 19.<https://www.codecademy.com/articles/text-editors-sublime-atom>

GITHUB LINK

20.https://github.com/jayasree012/tasty_treats.git