

# **User Experience Design Report**

## **On**

# **Cake Order Shopping Online**

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**Submitted to**  
**Department of Computer Science &**  
**Engineering Institute of Computer**  
**Technology**



**Year 2022**

## **CERTIFICATE**

This is to certify that the **User Experience Design** Project work entitled “**Cake Order Shopping Online**” by Prajapati Yash P. (20162121023) of Ganpat University, towards the partial fulfilment of requirements of the degree of Bachelor of Technology – Computer Science and Engineering, carried out by them in the CSE(CBA/BDA/CS). The results/findings contained in this Project have not been submitted in part or full to any other University / Institute for award of any other Degree/Diploma.

Name & Signature of Internal Guide

Name & Signature of Head

**Place: ICT - GUNI**

**Date:**

## **ACKNOWLEDGEMENT**

User Experience Design project is a golden opportunity for learning and self-development. I consider myself very lucky and honoured to have so many wonderful people lead me through in completion of this project. First and foremost, I would like to thank Dr. Hemal Shah, Principal, ICT, and Prof. Dharmesh Darji, Head, ICT who gave us an opportunity to undertake this project. My grateful thanks to Prof. Bhavesh Jain for their guidance in project work for Cake Shopping Online Web-app, who despite being extraordinarily busy with academics, took time out to hear, guide and keep us on the correct path. We do not know where would have been without his/her help. CSE department monitored our progress and arranged all facilities to make life easier. We choose this moment to acknowledge their contribution gratefully.

**PRAJAPATI YASH P. (Enrollment No.: 20162121023)**

## **ABSTRACT**

Buy a Cake is a portal which allows admin in developing counters to advertise and sell their cake. This would permit rural communities to make their wares available to the rest of the world. The objective of this project is to create a portal which would allow product information to be updated securely using a mobile device and will allow users to buy cake from the admin. The main concern is given to the village women to explore their talents and to enhance our traditional Indian culture. Cake Order Shopping Online – Web App. In future the internet become whole and soul to the business fields, each and every trade are going to be done through it so this portal may helpful to the women as a business person in this running world.

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# **Chapter 1**

## **Introduction**

### **1.1 Project Summary**

The Cake Shop is a portal which allows admin in developing countries to advertise and sell their cake. This would permit rural communities to make their wares available to the rest of the world. The objective of this project is to create a portal which would allow product information to be updated securely using a mobile device and will allow users to buy cake from the admin. The main concern is given to the village women to explore their talents and to enhance our traditional Indian culture. Cake Order Shopping Online – Android App. In future the internet become whole and soul to the business fields, each and every trades are going to be done through it so this portal may helpful to the women as a business person in this running world.

### **1.2 Project Scope**

The Cake Shop (TCS) will help the customers to choose from variety of cakes and pastries. It will help the customers to choose the perfect & fresh cakes for perfect occasion. We will also extend the varieties in future and add different kinds of cakes from different culture. For seller's side, TCS will be the platform for the sellers to sell their cakes. My objective is to create a website, that is easily accessible to everyone. My goal is to connect every rural baker to a common platform from where they can sell their cakes and the customers can buy cakes. Creating a link for customers to get freshly baked cakes. Scope of this project will be to fill the gap of rural bakers and customers.

### **1.3 Objective**

My objective is to create a webpage that will help the local bakers to sell their cakes and make their presence online. This will in turn help them to grow their business. My aim is also to give a platform for the rural women bakers to sell their cakes and make their business grow and make them a business person in this developing and fast moving world.

### **1.4 Literature Review/Background Study**

This study helps us to understand the customer's perspective and the seller's perspective and their feelings which helps us to develop the website usable, equitable, enjoyable and useful. For the background study, I managed to analyze some of the websites of some well-known cake sellers. In that I found that they some of them have not yet made the website properly, some of them have not added the product descriptions properly. So, it is my goal to make my own website and make sure that these mistake does not occur in my website.

## **Chapter 2**

### **System Requirement Study**

#### **2.1 Hardware & Software Characteristics**

Minimum Hardware Requirements: -

- Laptop/Desktop
- Processor – 1 Gigahertz (GHz) or above
- RAM – 1 GB or above
- Free Disk Space – 30GB or above
- Internet Connection

Recommended Software Requirements: -

- Eclipse IDE 2021-12 4.0 or higher
- Apache Tomcat Server v10.0 or higher
- JDK 12.0 or higher
- JavaSE-14 or higher
- MySQL Server 8.0 or higher
- Appropriate JAR files
- Bootstrap 4
- MD Bootstrap

## Chapter 3

### System Analysis

#### 3.1 Study of Current System & Requirement of this System

##### Advantages

- Bakers will be able to sell their cakes to many peoples.
- Users will be able to order cake online.
- Users will get hands on view on how does their cake looks.
- Users will be able to order the cake online & do payment directly hassle freely.
- Rural bakers will get exposure because of online availability.
- Women bakers who bake from home they will get promoted.

##### Dis-advantages

- Customers will not be able to taste cakes before ordering.
- Customers will not be able to customize their cakes.
- In delivery, the design of cake can get damaged in transporting.
- Shipping cost can affect the overall price of cake.

#### 3.2 Data Dictionary

Table Name – User

Field	Type	Null	Key	Default	Extra
userId	int(11)	NO	PRI	NULL	auto_increment
userName	varchar(100)	NO		NULL	
userPhone	varchar(100)	YES		NULL	
userAddress	varchar(100)	YES		NULL	
userEmail	varchar(100)	NO		NULL	
userPassword	varchar(100)	NO		NULL	
userPic	varchar(100)	YES		default.png	
userType	varchar(50)	YES		normal	

Table Name – Category

Field	Type	Null	Key	Default	Extra
cId	int(11)	NO	PRI	NULL	auto_increment
cTitle	varchar(50)	YES	UNI	NULL	
cDescription	longtext	YES		NULL	
cPic	varchar(50)	YES		categories.png	
cSmallDesc	mediumtext	YES		NULL	



Table Name – Product

Result Grid						
Filter Rows:		Export:		Wrap Cell Content:		
	Field	Type	Null	Key	Default	Extra
▶	pId	int(11)	NO	PRI	NULL	auto_increment
	pTitle	varchar(50)	YES	UNI	NULL	
	pDescription	longtext	YES		NULL	
	pPic	varchar(50)	YES		NULL	
	pPrice	bigint(20)	YES		NULL	
	pDiscount	bigint(20)	YES		NULL	
	pQuantity	bigint(20)	YES		NULL	
	cId	int(11)	YES	MUL	NULL	
	pSmallDesc	mediumtext	YES		NULL	
	pDiscPrice	float	YES		NULL	

### 3.3 Modules and Their Description of System

1. Homepage
  - This is homepage of my website. Here it will show the photos of some products and it will redirect to Login/Sign-up page.
2. Login
  - Login page will allow the customers to login if they have already signed up before, or else they will be redirected to sign-up page.
3. Sign-Up
  - Sign-up page will let user signup for the first time and it will add the details of user into the database.
4. Login Validation
  - This validation will check if the user exists or not. And also checks if the user logged in is customer or admin.
5. Sign-up Validation
  - This will check if the data entered by user is valid or not.
6. Add Category
  - This module is for adding the categories into the database.
7. Add Product
  - This module is for adding the products into the database.
8. Delete Category
  - This module is for deleting the categories into the database.
9. Delete Product
  - This module is for deleting the products into the database.
10. Category-wise View
  - This will allow users to see the cakes category-wise.

### 11. Product Page

- This is the default page for the customers as it will show all the products in database and will give option of 'Add to Cart' for any product.

### 12. Cart

- This is the cart module that will be available to the customers for adding the products for checkout and they will also be able to manage the products in cart.

### 13. Checkout Page

- This module is for the final checkout. It will show the final cart and will ask customer to add some basic details and after that it will redirect to payment gateway page.

### 14. Payment Details

- This page is for allowing user to add the payment details and do the payment.

### 15. Success Page

- This is the final page for the user order cycle. If the payment is successful this page will be shown and after this the user will be redirect to the homepage.

## **Chapter 4**

### **System Design**

#### **4.1 Design Pseudocode or Algorithm for Method or Operation**

##### **4.1.1 Home Page**

This page will contain some interactive images to attract the customers.

This page will redirect to the Login Page.

##### **4.1.2 Login Method**

Step 1: Take input from user, email and password.

Step 2: Check whether the input data matches with the data stored in database.

Step 3: If data exists,

Check if the email contains “@tcs.com”,

If Yes,

Redirect user to admin page.

Else,

Redirect user to the homepage for ordering cake.

If the data does not match with data stored in database, redirect the user to ‘Sign-Up’ page.

##### **4.1.3 Sign-up Method**

Step 1: Take input from user as follows:

- Name
- Phone Number
- Gender
- Address
- Email
- Password
- Retype Password

Step 2: Validate the password by checking the password entered in ‘Password’ and ‘Retype Password’.

Step 3: If the password matches, store the data in database.

Step 4: Redirect user to login page.

##### **4.1.4 Homepage for User**

Step 1: Select all the data of cakes from Product table in database.

Step 2: For each product, make a card using bootstrap.

Step 3: Add a “Add to Cart” button on card of each product.

Step 4: For showing the categories, select all the data from Categories table in database.

Step 5: Repeat Step 2 for each category.

Step 6: For showing the products from particular category, pass a hidden parameter Category ID on button click of the category in the cards.

Step 7: After getting the Category ID, filter out the category using URL Rewriting method and select query with condition.

### **4.1.5 Cart Method**

Step 1: On clicking ‘Add to cart’, the item will be added to the cart.

Step 2: Add the data using JavaScript into localStorage of the browser.

Step 3: First check whether the product quantity in database is less than the database or not.

Step 4: If the quantity is less, then show message “Product not in stock”.

Step 5: If the quantity entered by user is less or equal, add the product to cart.

Step 6: User will also be able to delete the product using pID from the cart.

Step 7: After the managing of the cart is completed, the user is redirect to the ‘Checkout’ page.

### **4.1.6 Checkout Module**

Step 1: Show all the data stored in cart in local storage of the browser.

Step 2: And take inputs for shipping like Name, Email and shipping address.

Step 3: After the user enter all the data, redirect the user to ‘Payment’ page.

### **4.1.7 Payment Module**

Step 1: The user will be asked to enter the card details for the payment.

Step 2: After the user has entered the details, the payment will get initialized.

Step 3: After the user has successfully completed the payment, acknowledge him by redirecting him to ‘success’ page.

Step 4: After success page, redirect him to the main homepage.

### **4.1.8 Admin Module**

#### **4.1.8.1 Add Category**

Step 1: Click on Add Category

Step 2: Enter the details as follows Title, Description and Picture.

Step 3: Click on ‘Add Category’ button to add the entered data in database.

Query:

```
String cInsertQ = "INSERT INTO `category` (`cTitle`, `cDescription`, `cPic`, `cSmallDesc`) VALUES (?, ?, ?, ?);";
```

#### 4.1.8.2 Add Product

Step 1: Click on Add Product

Step 2: Enter the details as follows Title, Description, Picture, Price, Discount, Quantity and Category.

Step 3: Click on 'Add Product' button to add the entered data in database.

Query:

```
String pInsertQ = "INSERT INTO `myproject`.`product` (`pTitle`, `pDescription`, `pPic`, `pPrice`, `pDiscount`, `pQuantity`, `cId`, `pSmallDesc`, `pDiscPrice`) VALUES (?,?,?,?,?,?,?,?);";
```

#### 4.1.8.3 Modify Category

Step 1: Ask admin to select the category which he/she wants to modify.

Step 2: Ask admin to select the parameter that he/she wants to modify.

Step 3: Ask admin to input the new value.

Step 4: Ask to enter the password for authenticating the action.

Query:

```
String cUpdateQ = "UPDATE `myproject`.`category` SET `" + colname + "` = '" + in_data + "'" where `cId` = '" + in_cid + "';";
```

#### 4.1.8.4 Modify Product

Step 1: Ask admin to select the product which he/she wants to modify.

Step 2: Ask admin to select the parameter that he/she wants to modify.

Step 3: Ask admin to input the new value.

Step 4: Ask to enter the password for authenticating the action.

Query:

```
String pUpdateQ = "UPDATE `myproject`.`product` SET `" + colname + "` = '" + in_data + "'" where `pId` = '" + in_pid + "';";
```

#### 4.1.8.5 Delete Category

Step 1: Ask admin to select the category that he/she wants to delete.

Step 2: Ask to enter the password for authenticating the action.

Query:

```
String cDeleteQ = "DELETE FROM `category` where cId = '" + in_cid + "';";
```

#### 4.1.8.5 Delete Product

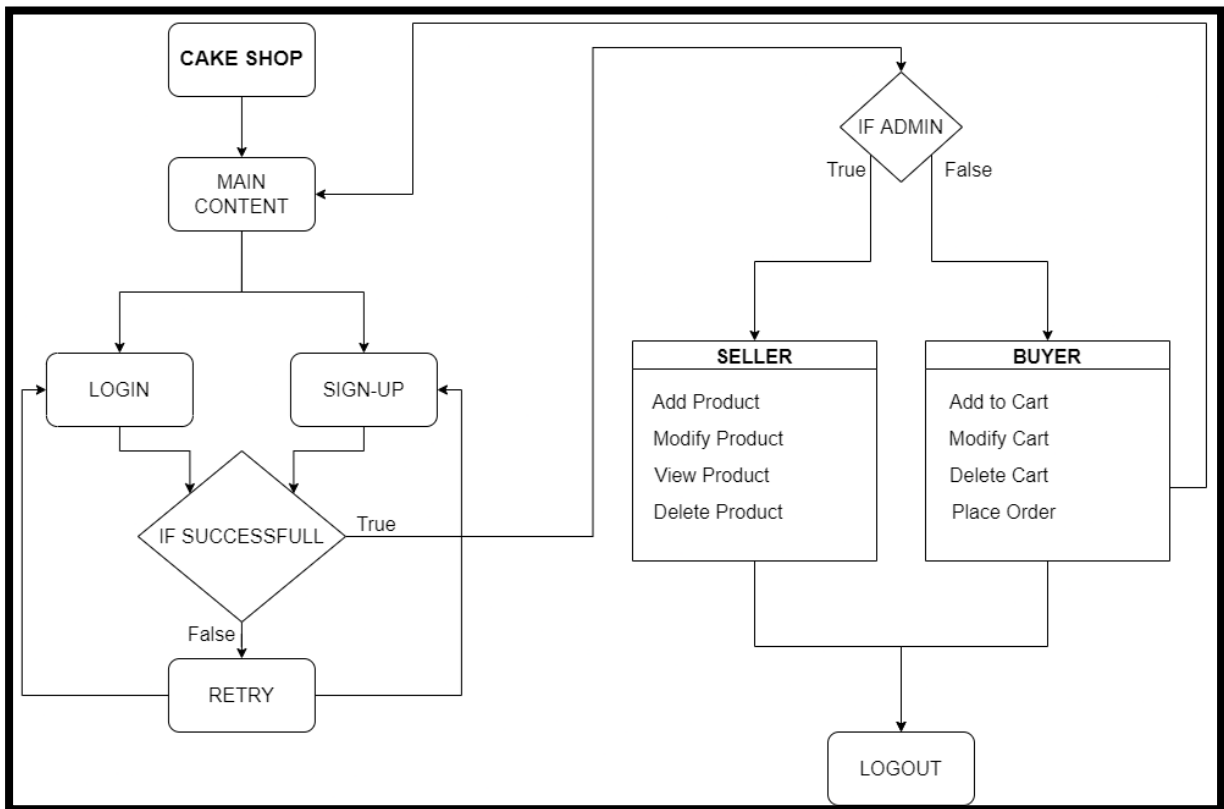
Step 1: Ask admin to select the product that he/she wants to delete.

Step 2: Ask to enter the password for authenticating the action.

Query: 

```
String pDeleteQ = "DELETE FROM `product` where pId = '" + in_pid + "';";
```

## 4.2 Flow Chart Diagram

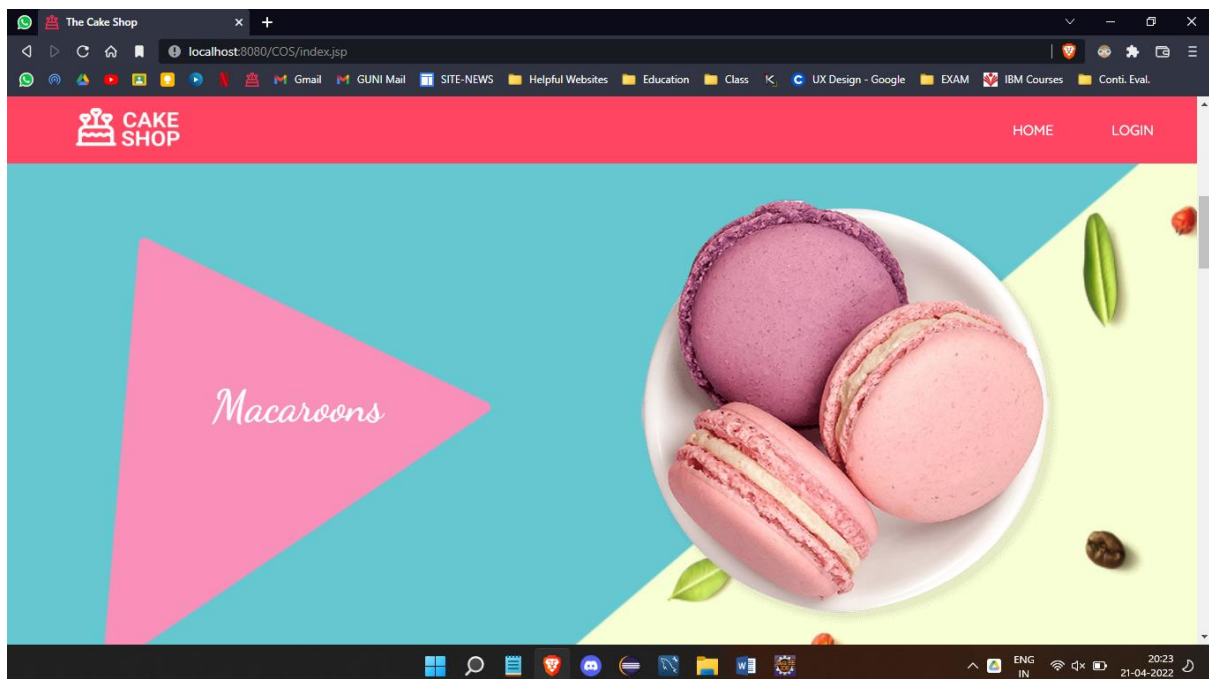
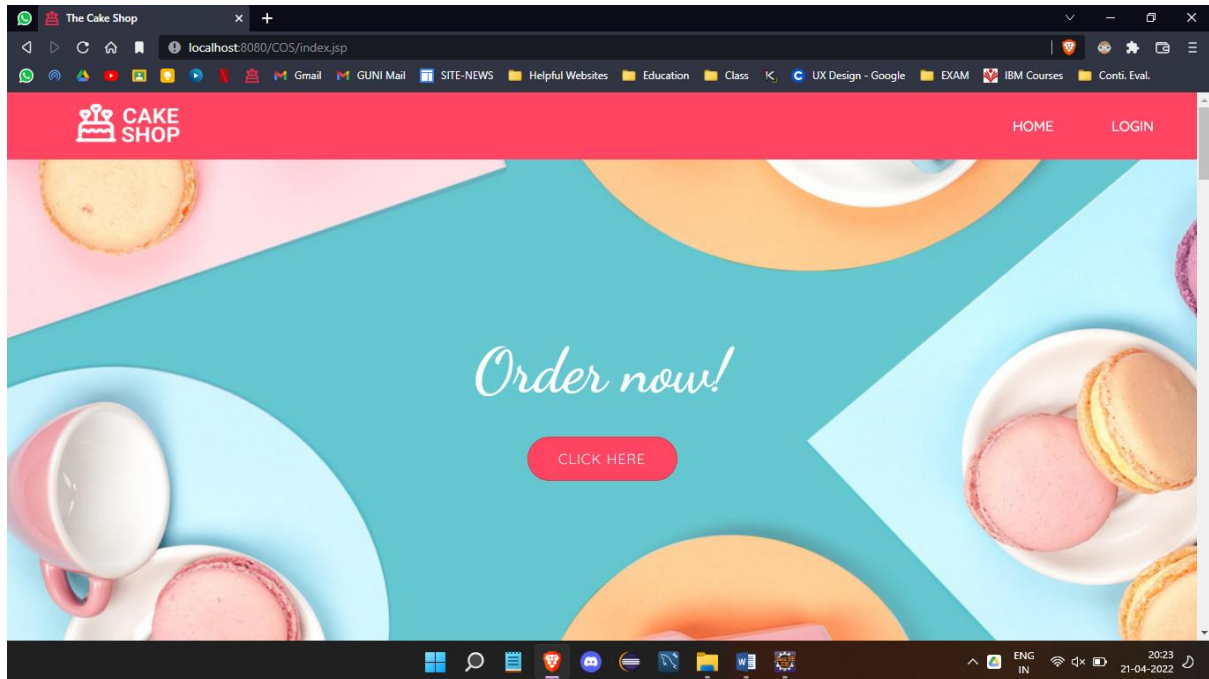


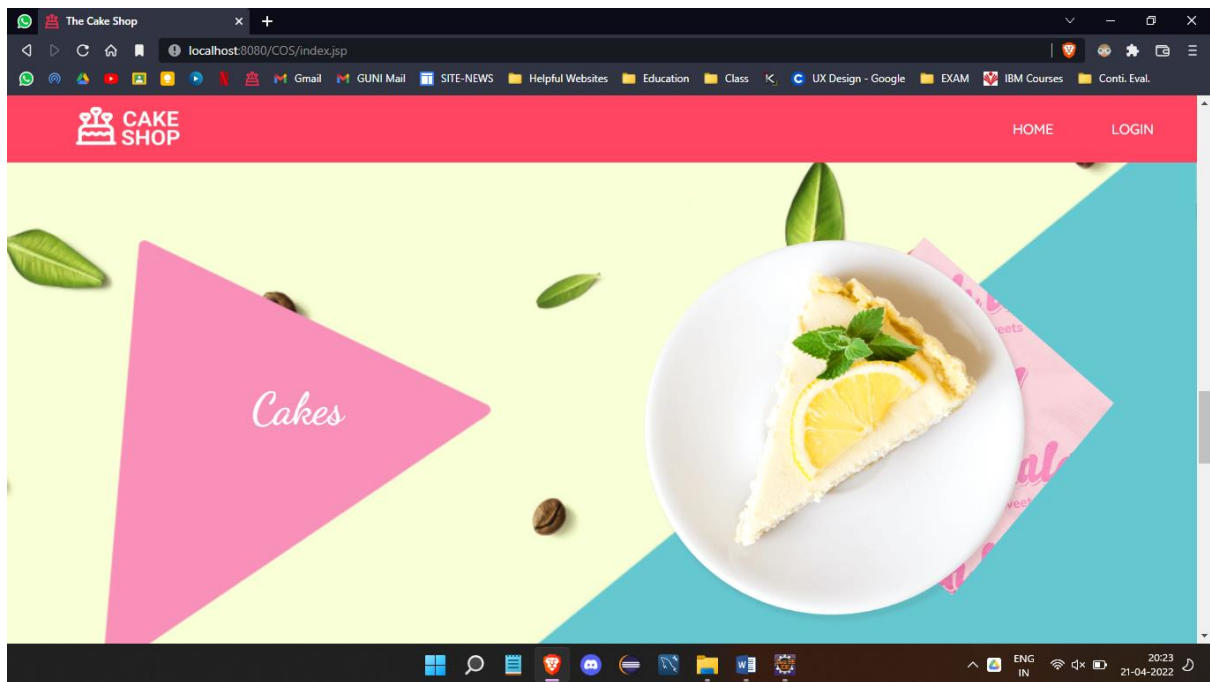
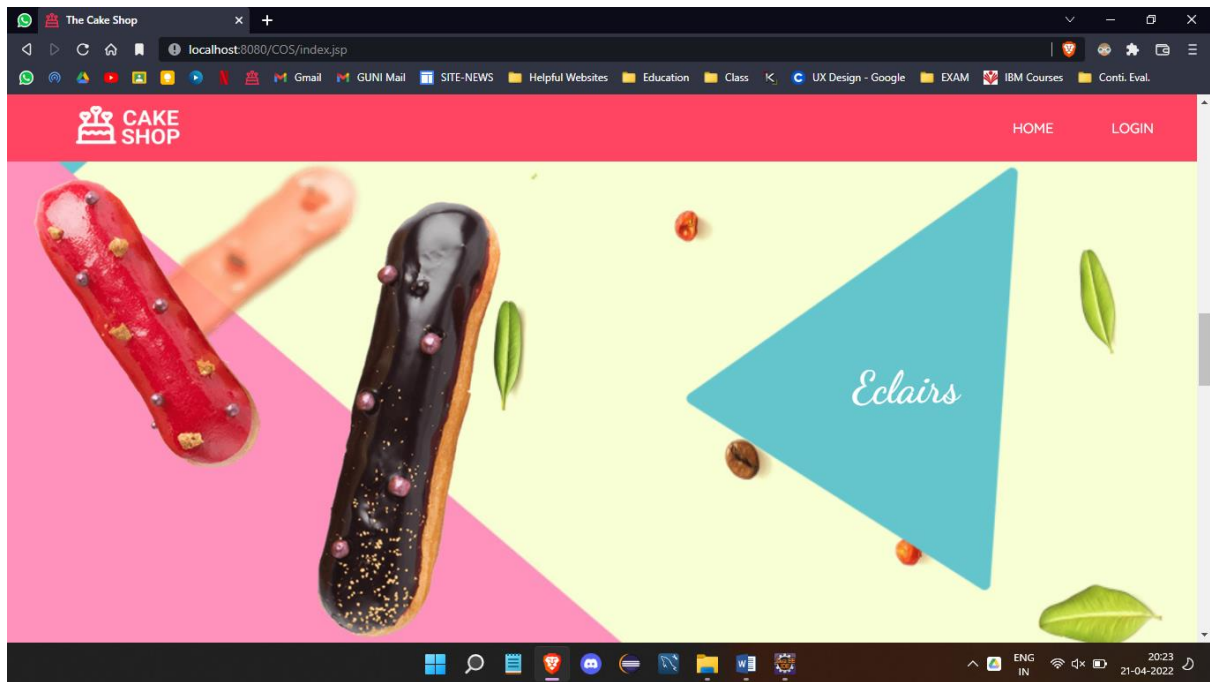
## Chapter 5

### Screenshots

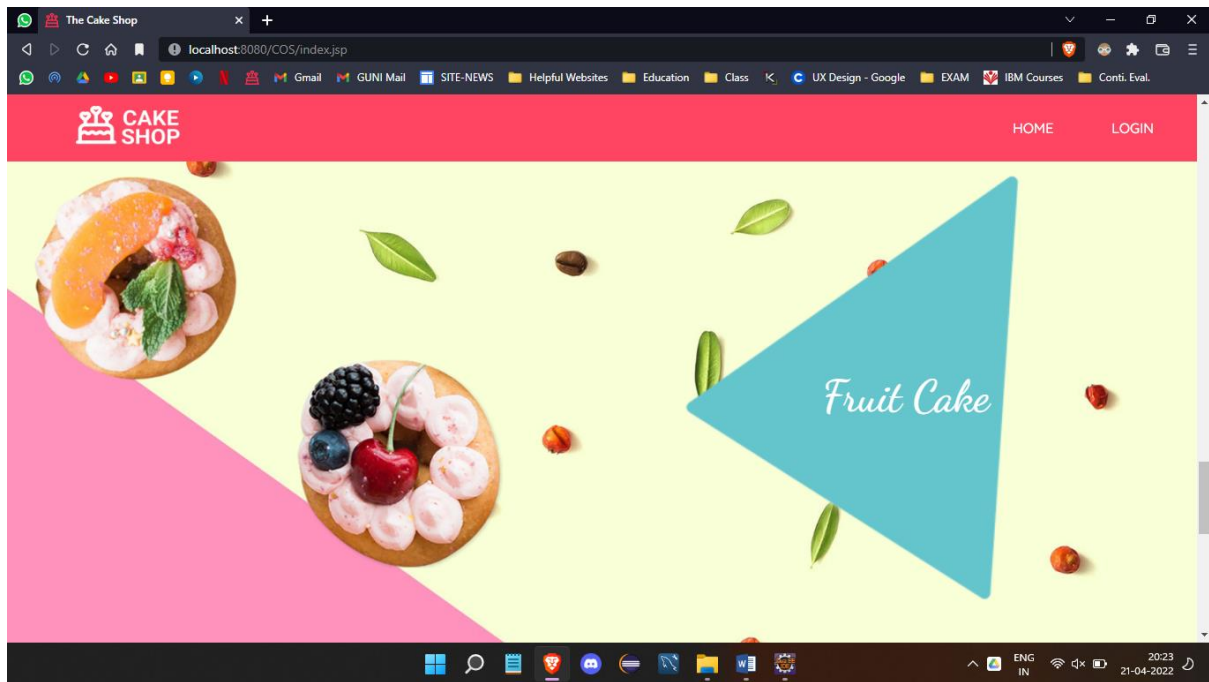
#### 5.1 Frontend/Client/End User Side Screenshots

Homepage:

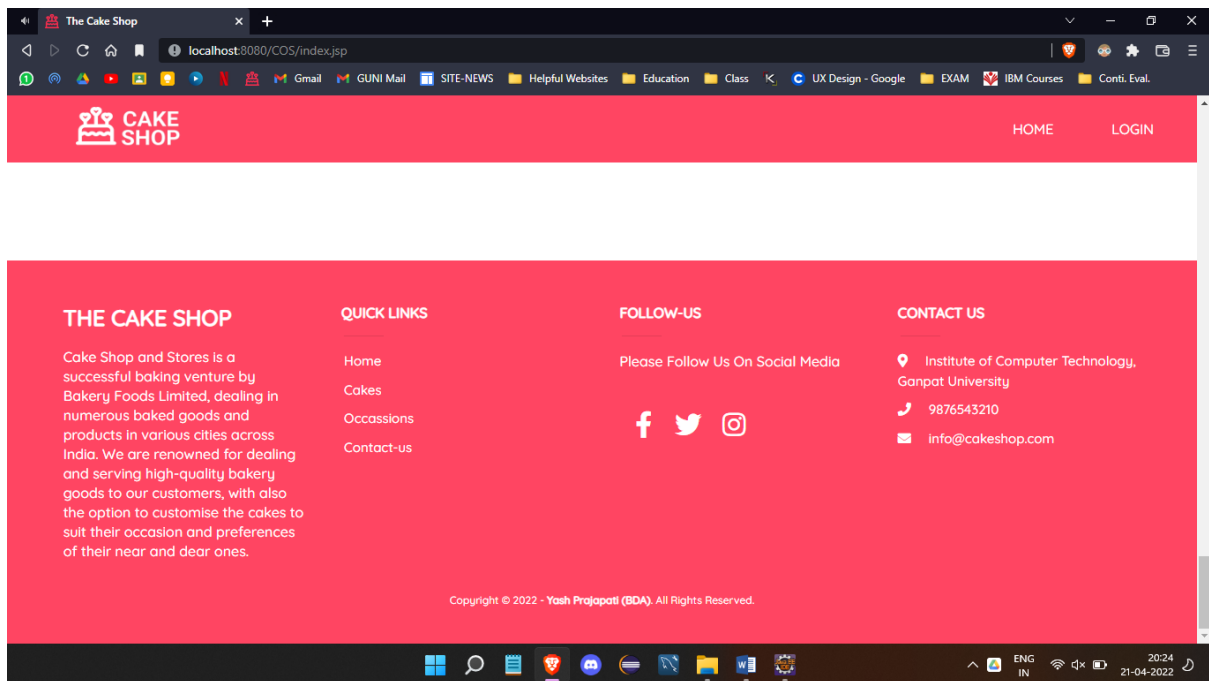








Footer:



## User Login:

The screenshot shows a web browser window with the URL `localhost:3080/COS/account.jsp`. The page has a red header with the "CAKE SHOP" logo and navigation links for "HOME" and "LOGIN". The main content area is titled "USER - LOGIN" and contains a form with two input fields: "Email" (placeholder: "Enter Email") and "Password" (placeholder: "Enter Password"). Below the fields is a red "Login" button. At the bottom of the form, there is a link that says "Don't have account? [Sign up](#)". The browser's taskbar at the bottom shows various application icons and the system clock indicating 20:24 on 21-04-2022.

## User Registration:

The screenshot shows a web browser window with the URL `localhost:3080/COS/signup.jsp`. The page has a red header with the "CAKE SHOP" logo and navigation links for "HOME" and "LOGIN". The main content area is titled "USER - REGISTER" and contains a form with four input fields: "Name" (placeholder: "Enter Your Name"), "Phone" (placeholder: "Enter Phone no."), "Gender" (with radio buttons for "Male" and "Female", where "Male" is selected), and "Address" (placeholder: "Enter Address"). The browser's taskbar at the bottom shows various application icons and the system clock indicating 20:24 on 21-04-2022.

Sign Up

localhost:8080/COS/signup.jsp

CAKE SHOP

HOME LOGIN

Address

Enter Address

Email

Enter Email

Password

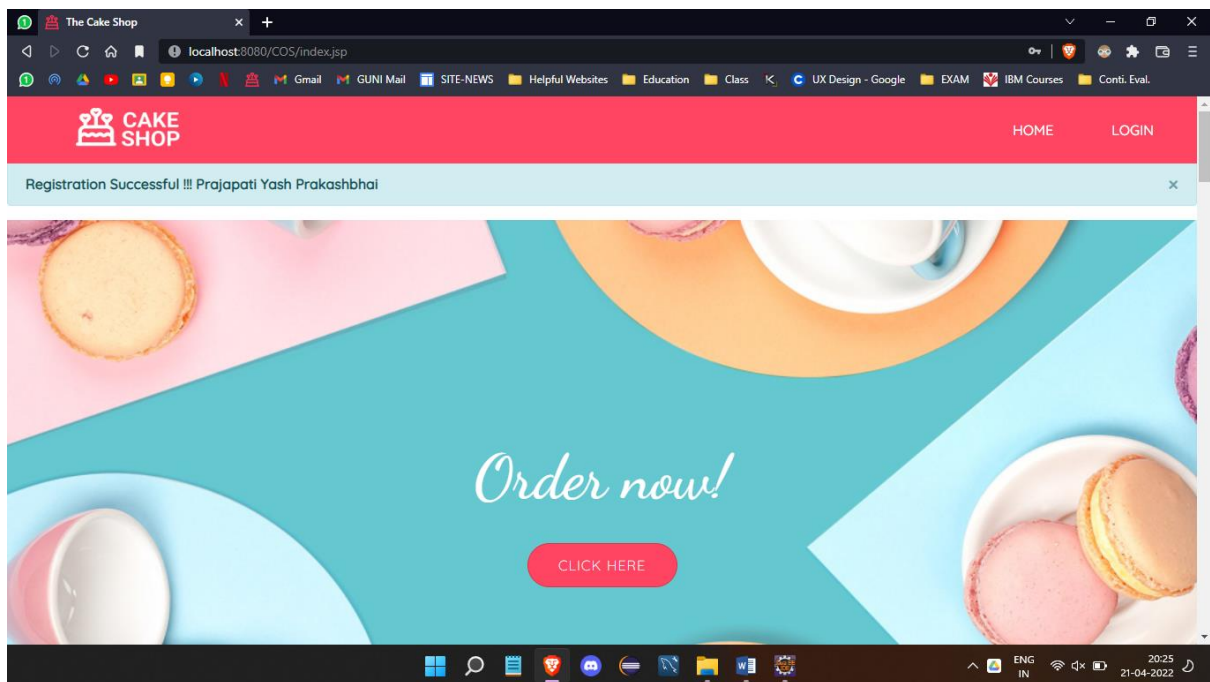
Enter Password

Re-type Password

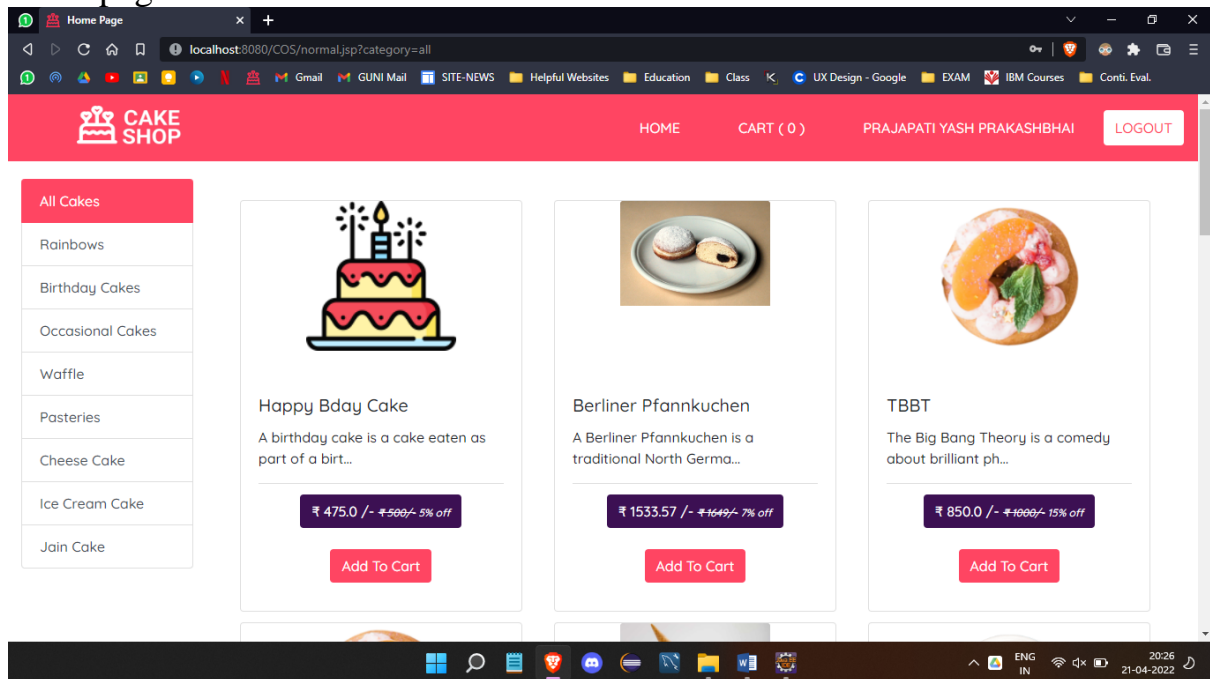
Retype Password

Register

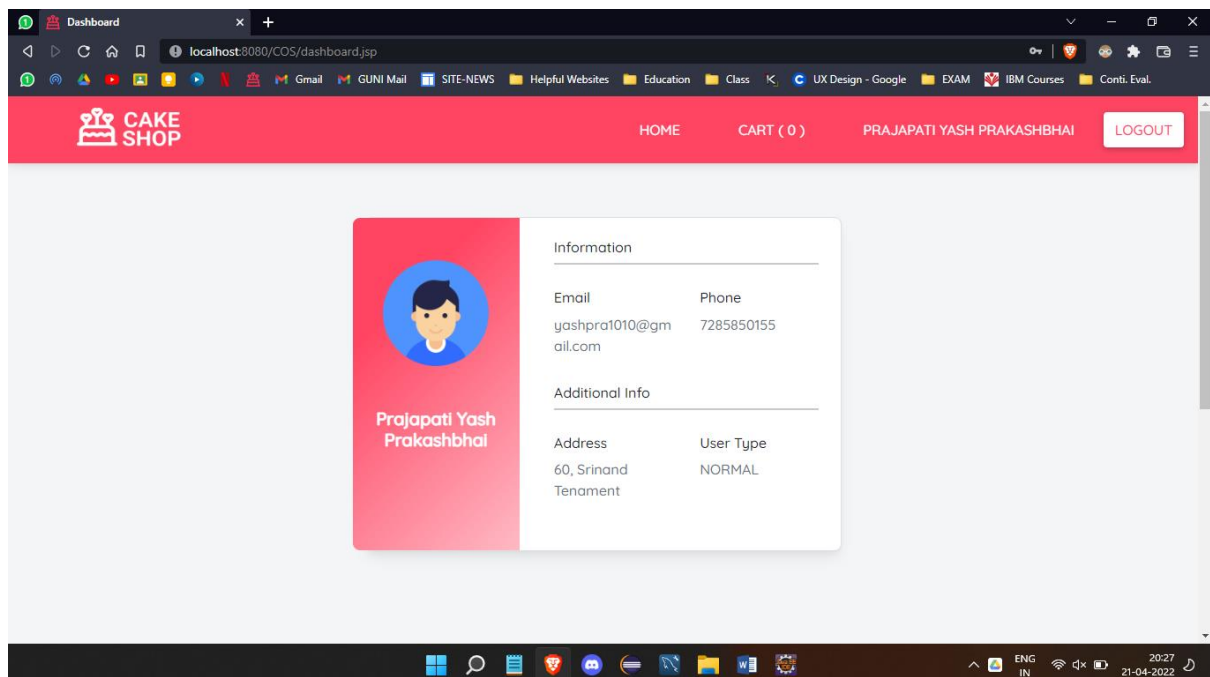
## Successful Registration Message:



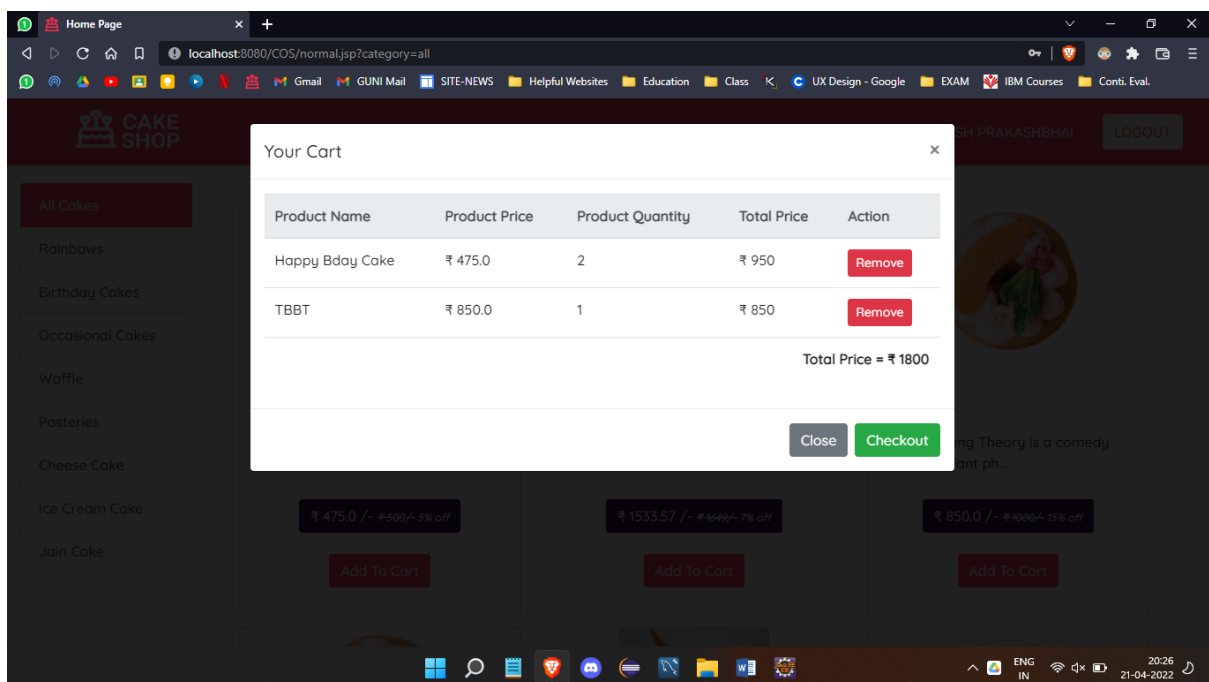
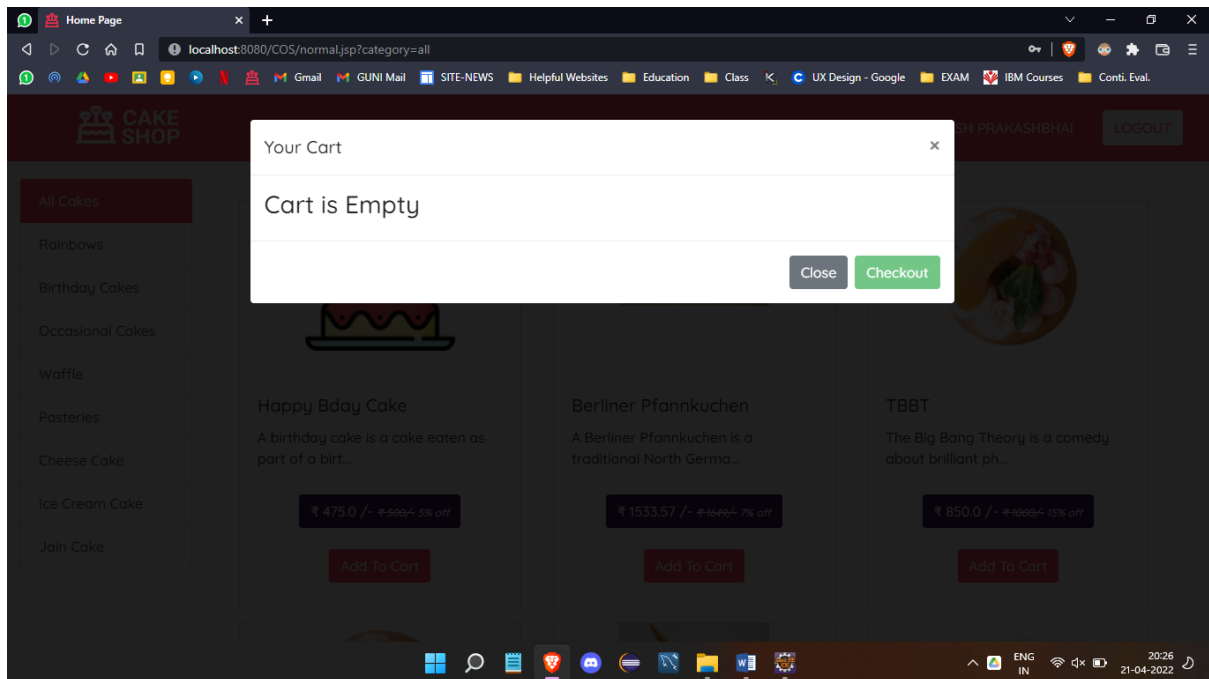
## Homepage for customer:



## User Dashboard:



## Cart:



## Checkout Page:

**CAKE SHOP** HOME CART ( 2 ) PRAJAPATI YASH PRAKASHBHAI LOGOUT

### Your Cart

Product Name	Product Price	Product Quantity	Total Price	Action
Happy Bday Cake	₹ 475.0	2	₹ 950	<a href="#">Remove</a>
TBBT	₹ 850.0	1	₹ 850	<a href="#">Remove</a>
			<b>Total Price = ₹ 1800</b>	

### Your Details

**Email address**  
  
We'll never share your email with anyone else.

**Name**

**Shipping Address**

[Continue Shopping](#) [Place Order](#)

## Payment Gateway:

**PAYMENT DETAILS**

Card Number

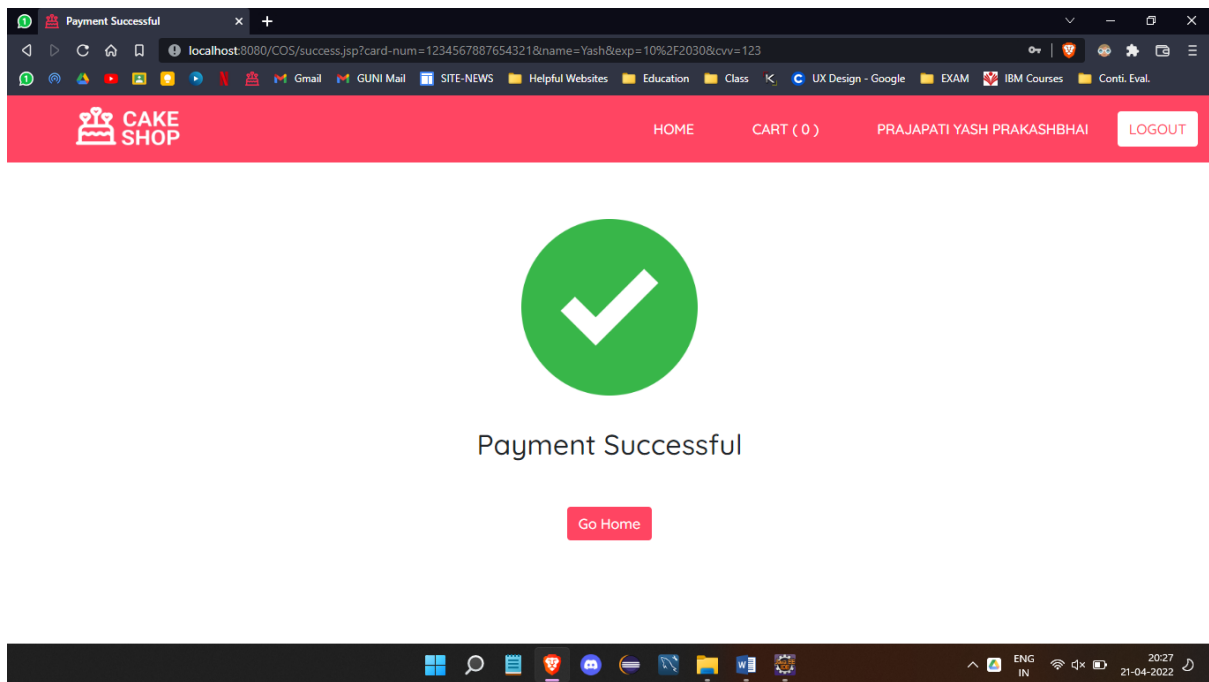
Cardholder's Name

Expiration

Cvv

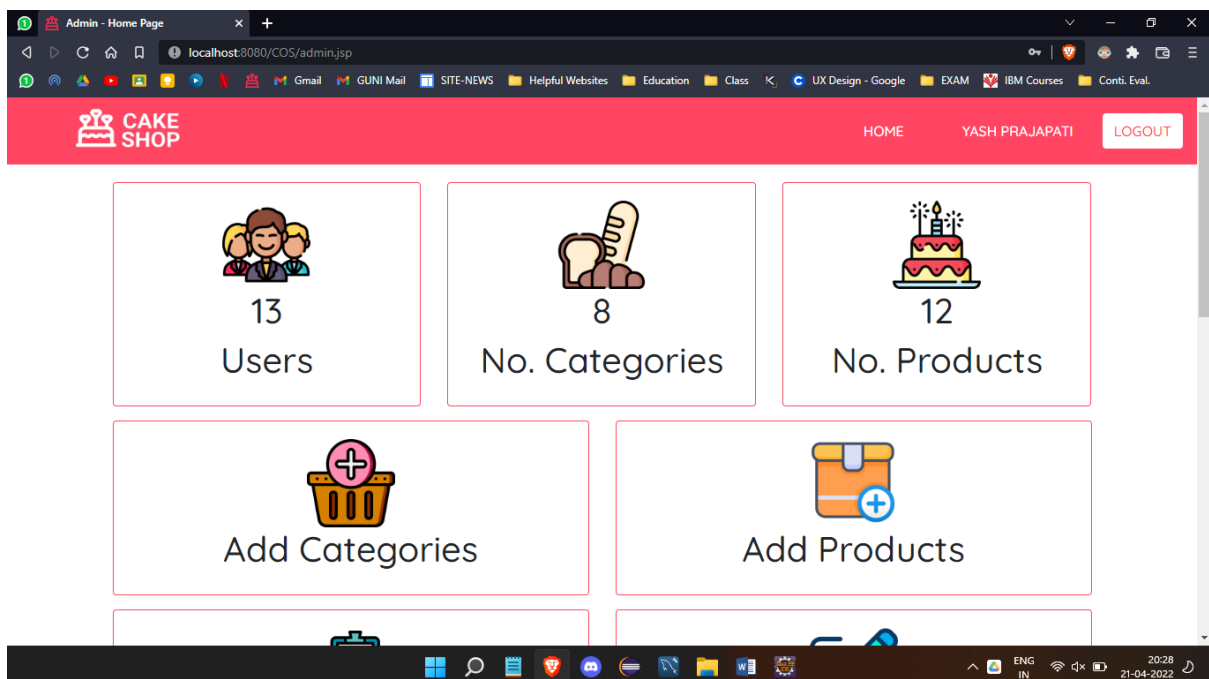
[→](#)

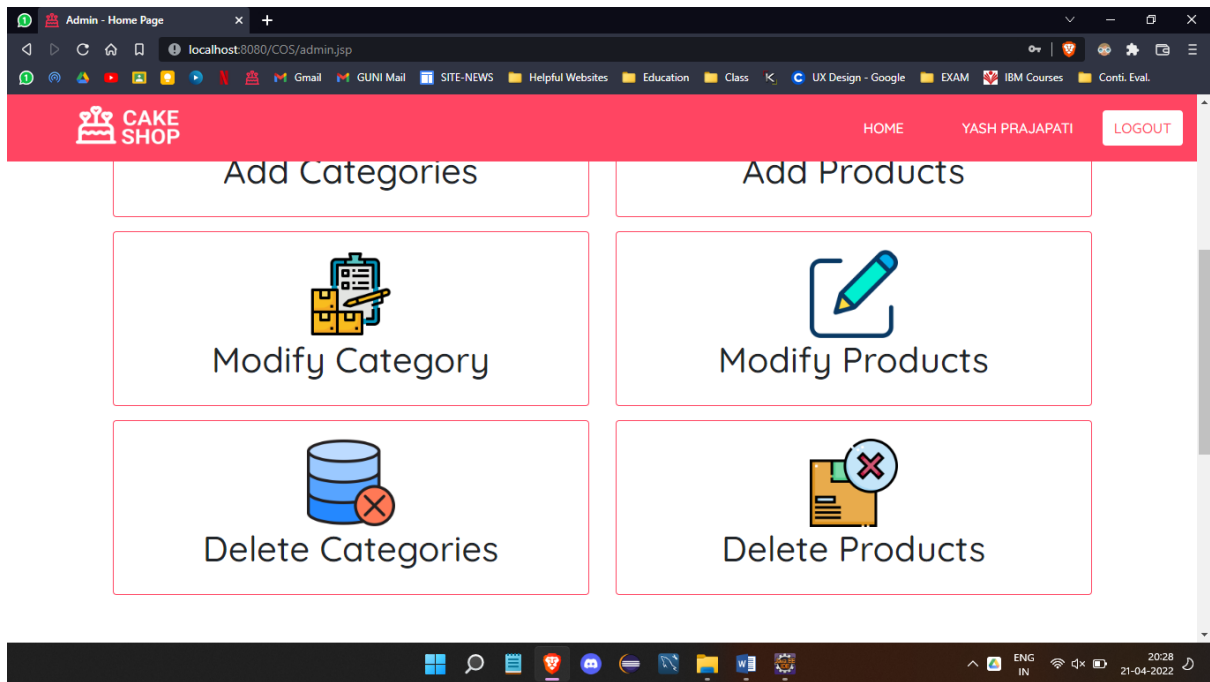
## Confirmation Page:



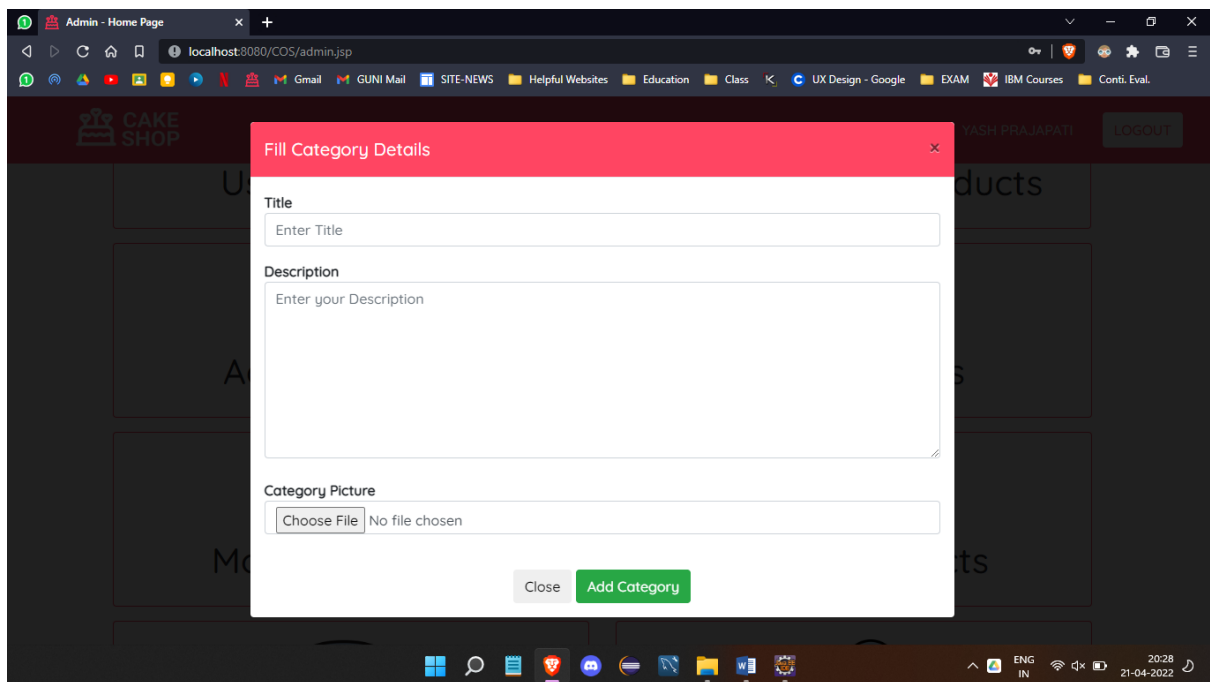
## 5.2 Backend/Admin Side Screenshots

### Admin Page:





### Add Category Page:





## Add Product Page:

The screenshot shows a web browser window with the URL `localhost:8080/COS/admin.jsp`. The page title is "Admin - Home Page". The browser's address bar shows the URL. The page has a dark theme with a "CAKE SHOP" logo in the top left. A modal form titled "Fill Product Details" is open, containing the following fields:

- Product Title**: A text input field with the placeholder "Enter Title".
- Product Description**: A text area with the placeholder "Enter your Product Description".
- Product Picture**: A file upload field with a "Choose File" button and the text "No file chosen".
- Product Price**: A text input field with the placeholder "Enter Price".
- Product Discount**: A text input field with the placeholder "Enter Discount (%)".
- Product Quantity**: A text input field (partially visible).

The Windows taskbar at the bottom shows the date and time as 20:28 on 21-04-2022.

This screenshot shows the same "Fill Product Details" modal form, but with the "Add Product" button highlighted in green. The "Product Description" field is now visible, showing the placeholder "Enter your Product Description". The "Product Picture" field still shows "No file chosen". The "Product Price" field has the placeholder "Enter Price". The "Product Discount" field has the placeholder "Enter Discount (%)". The "Product Quantity" field has the placeholder "Enter Quantity". The "Category" dropdown menu is open, showing "Rainbows" as the selected option. The "Close" and "Add Product" buttons are at the bottom of the modal.

## Modify Category Page:

The screenshot shows a web browser window with the URL `localhost:8080/COS/admin.jsp`. The page title is "Admin - Home Page". A modal dialog titled "Which category you want to modify?" is open. The modal contains the following fields:

- Select Category To Modify:** A dropdown menu with "Rainbows" selected.
- Which field you want to modify?:** A dropdown menu with "Title" selected.
- Which value for the field?:** A text input field with the placeholder "Enter New Value".
- Password:** A text input field with the placeholder "Enter Your Password".

At the bottom of the modal, there are two buttons: "Close" and "Modify Category". The background of the web application is dark with a "CAKE SHOP" logo and a "YASH PRAJAPATI" header.

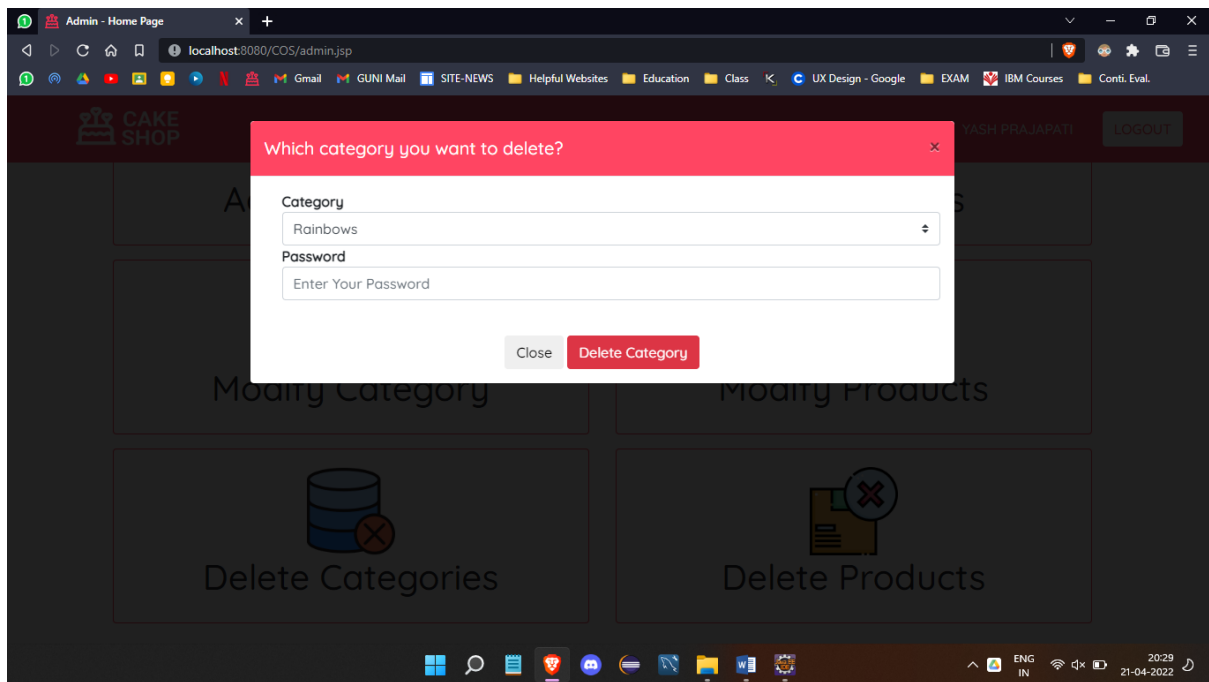
## Modify Product Page:

The screenshot shows the same web browser window as above. A modal dialog titled "Which product you want to modify?" is open. The modal contains the following fields:

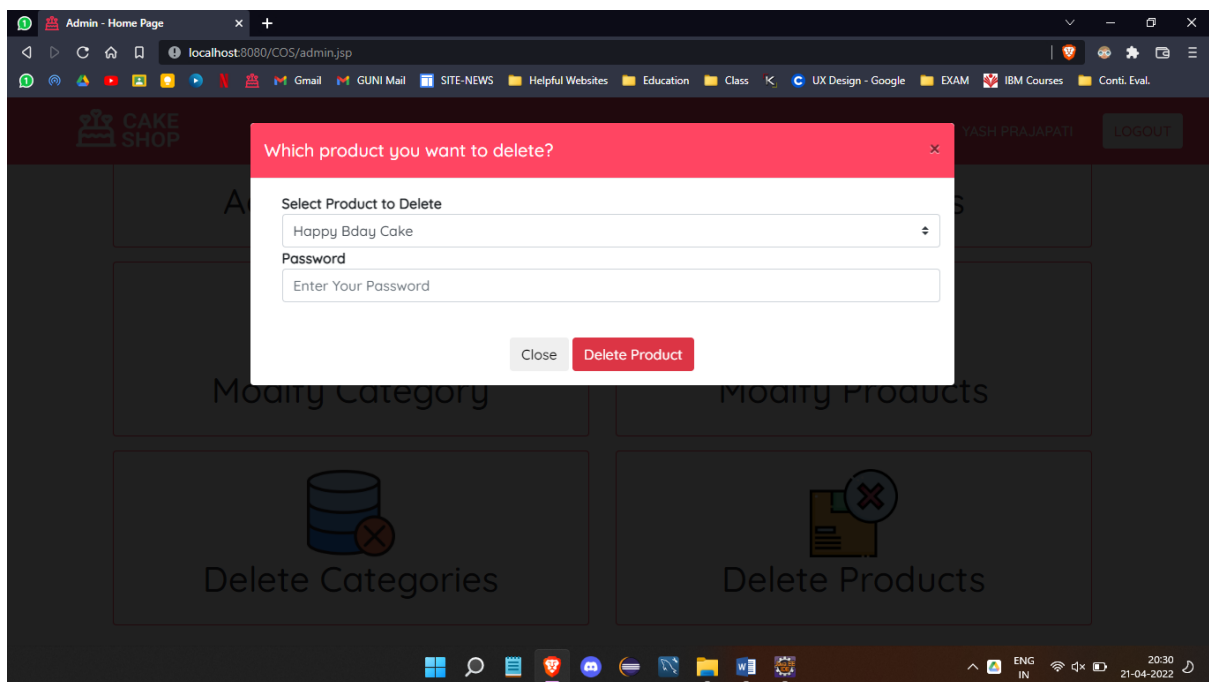
- Select Product To Modify:** A dropdown menu with "Happy Bday Cake" selected.
- Which field you want to modify?:** A dropdown menu with "Title" selected.
- Which value for the field?:** A text input field with the placeholder "Enter New Value".
- Password:** A text input field with the placeholder "Enter Your Password".

At the bottom of the modal, there are two buttons: "Close" and "Modify Product". The background of the web application is dark with a "CAKE SHOP" logo and a "YASH PRAJAPATI" header.

## Delete Category Page:



## Delete Product Page:



## **Chapter 6**

### **Conclusion & Future Work**

The motivation behind this project was to study and practice UI/UX ideas. By this project I will actually want to make a decent and solid website which will be the best platform for cake merchants and give a superior stage to order cakes online. The Cake Shop (TCS) will assist the clients with browsing assortment of cakes and baked goods. It will assist the clients with picking the ideal and new cakes for amazing event. We will likewise expand the assortments in future and add various types of cakes from various culture. For vender's side, TCS will be the stage for the dealers to sell their cakes. My goal is to make a site, that is effectively available to everybody. I want to associate each country pastry specialist to a typical stage from where they can sell their cakes and the clients can purchase cakes. Making a connection for clients to get newly prepared cakes. Extent of this venture will be to fill the hole of rustic bread cooks and clients. For future work, I will try to do marketing and contact every local supplier and educate them about the online business for their benefit. I will make the website 100% responsive, so that it can work on every device, be scalable. In future, I will develop a Mobile application so that it can work on every device, i.e. Android App & iOS App for better experience.

## REFERENCES

- [www.youtube.com](http://www.youtube.com)
- [www.stackoverflow.com](http://www.stackoverflow.com)
- [www.geeksforgeeks.org](http://www.geeksforgeeks.org)
- [www.w3schools.com](http://www.w3schools.com)
- [www.javatpoint.com/](http://www.javatpoint.com/)
- [www.mdbootstrap.com/docs/b4/](http://www.mdbootstrap.com/docs/b4/)
- [www.getbootstrap.com/docs/4.0/components/](http://www.getbootstrap.com/docs/4.0/components/)