



## **Modern Application Development ( Java Spring Boot)**

**Title: Donut Delight**

Project Report

BY

### **Team Members:**

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## **1.INTRODUCTION**

### **1.1 Overview**

Donut Delight is a web-based platform designed to enable customers to conveniently order and purchase donuts from a chain of donut delight outlets. The system aims to streamline the ordering process, provide customization options, and offer a seamless user experience for online donut purchases.

### **1.2 Purpose**

The purpose of this project is to create an efficient and user-friendly online platform that allows customers to order and customise their donut purchases. The system aims to simplify the process of selecting, personalising, and purchasing donuts, providing convenience to customers and increasing sales for donut delight shops.

## **2. LITERATURE SURVEY**

### **2.1 Existing problem**

The existing problem in the traditional donut ordering and buying process is the lack of a convenient and efficient online platform. Customers often need to visit physical stores or call to place orders, resulting in potential inconveniences, long waiting times, and limited customization options.

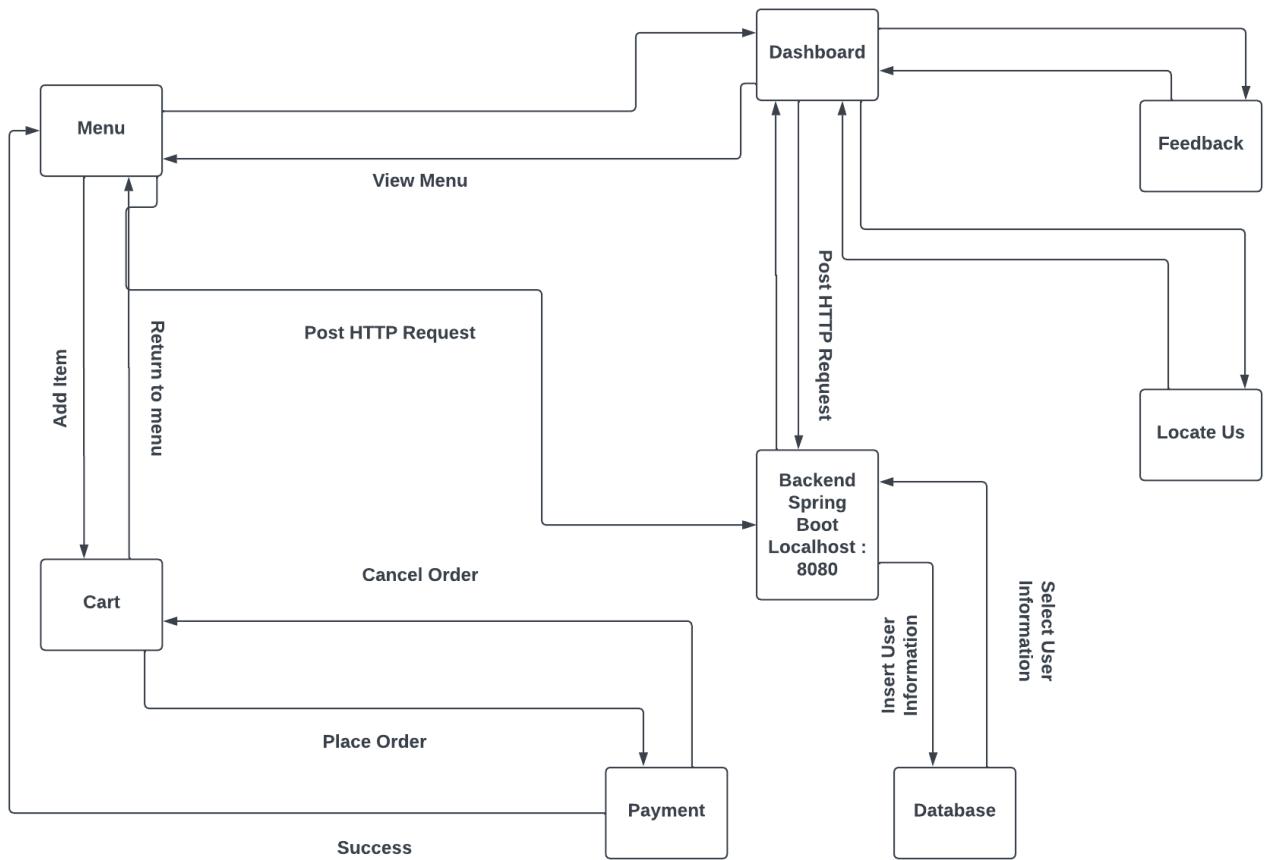
### **2.2 Proposed solution**

The proposed solution is the development of an online donut ordering and buying system. This system provides customers with a web-based platform to browse the menu, customise their orders, add items to the shopping cart, and

securely complete the purchase process. It aims to enhance the overall customer experience and streamline the donut ordering process.

### 3. THEORETICAL ANALYSIS:

#### 3.1 Block diagram



The block diagram of the Donut Delight system showcases the flow of data and operations involved in the system. It includes components such as user registration, menu and product display, customization options, shopping cart, ordering and checkout, feedback and reviews.

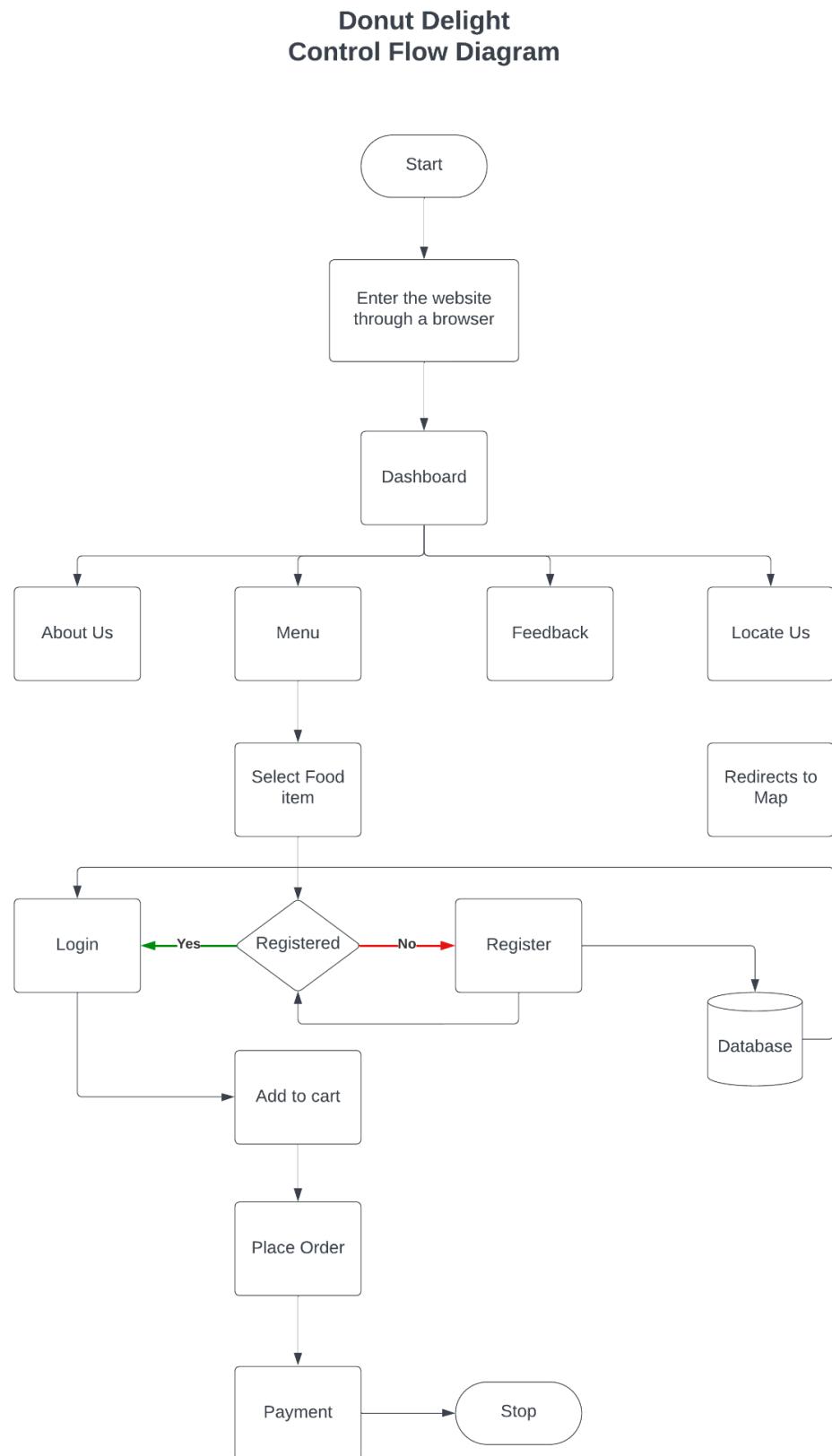
### **3.2 Hardware/Software Designing**

The online donut purchase system primarily requires software designing. It can be developed using web technologies such as HTML, CSS, JavaScript, and Java Spring boot for back end. The system may also utilise a MySQL database to store user information, product details, and order data.

## **4. EXPERIMENTAL INVESTIGATIONS**

During the development of the system, various investigations and analyses are conducted to ensure its functionality and usability. This includes testing different scenarios, verifying the ordering and customization processes, and addressing any issues or bugs encountered.

## 5. FLOWCHART



The flowchart visually represents the control flow of the online donut purchase system. It outlines the steps involved in the ordering process, including user registration, menu browsing, customization, adding to the cart, checkout, and order tracking.

## **6. RESULT**

The final findings of the project include the successful implementation of the online donut ordering system. Screenshots can be provided to showcase the user interface, the ordering process, and the confirmation of orders.

# Donut Delight - User Interface

## 1. Dashboard

The screenshot displays the homepage of the Donut Delight website. At the top, there's a navigation bar with links for Home, About Us, Menu, Feedback, and Locate Us. Below the navigation is a promotional banner for "Super Savers" donuts at \$2.99, featuring three different donut varieties. A quote on the right side reads: "From classic flavors to inventive creations, each bite is a moment of pure bliss, leaving you craving for more." Below the banner, there are three categories: "100% Eggless Donuts" with a pink icon, "Finest Coffee Range" with a coffee cup icon, and "20+ Exciting Combos" with a sandwich and drink icon. The main content area features a large pink banner with the text "Keeping It Cool" and "Donut Delight Refreshers", accompanied by images of two refreshing drinks. Below this is a section titled "Discover the Menu" with six categories arranged in a grid: "Donut Packs", "Sandwiches", "Donuts", "Hot Beverages", "Cold Beverages", and "Beverages". Each category has a small image and a "Takesaway" button. The footer contains the "Donut Delight" logo, the address "1234 Donut Street, Donutville, DN 12345", and social media links for Facebook, Twitter, and Instagram. It also includes a copyright notice: "© 2023 Donut Delight. All rights reserved."

## 2. About us

**Donut Delight**

Home    About-Us    Menu    Feedback    Locate Us

### About Us

Welcome to our website! We are a dedicated team of professionals passionate about providing high-quality services to our customers. With years of experience in the industry, we strive to exceed customer expectations and deliver outstanding results.

At our company, we believe in the power of innovation and continuous improvement. We constantly update our skills and stay up-to-date with the latest trends and technologies to offer cutting-edge solutions to our clients.

Customer satisfaction is our top priority. We listen to our customers' needs and tailor our services to meet their specific requirements. Our team of experts works closely with clients to ensure their goals are achieved and their vision is brought to life.

We value transparency, integrity, and open communication. We believe in building long-term relationships with our clients based on trust and mutual respect. Our goal is to establish ourselves as a reliable partner for all your needs.

Thank you for visiting our website. We look forward to serving you and helping you achieve your goals. Feel free to contact us for any inquiries or to discuss how we can assist you.

**Donut Delight**

1234 Donut Street, Donutville, DN 12345

[Facebook](#) [Twitter](#) [Instagram](#)

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## 3. Feedback:

**Donut Delight**

Home    About-Us    Menu    Feedback    Locate Us

### Feedback

**Name**

**Email**

**Message**

**Submit**

**Donut Delight**

1234 Donut Street, Donutville, DN 12345

[Facebook](#) [Twitter](#) [Instagram](#)

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## 4. Locate us (Locate the nearest donut delight shop)

**Donut Delight**

Home About-Us Menu Feedback Locate Us

# Locate Us

**Phoenix Market City**

**Address:** 142, Velachery Rd, Indira Gandhi Nagar, Velachery, Chennai, Tamil Nadu 600042

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**Nexus Shantiniketan Mall**

**Address:** Whitefield Rd, Thigalarapalya, Krishnarajapura, Bengaluru, Karnataka 560067

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**Nexus Koramangala**

**Address:** WJPF+3QH, KHB Block Koramangala, Koramangala 4th Block, Koramangala, Bengaluru, Karnataka 560034

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**Forum Mall**

**Address:** Konanakunte Cross Metro Station, Anjanadri Layout, Konanakunte, Bengaluru, Karnataka 560062

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**Brookefields Mall**

**Address:** 67-71, Dr Krishnasamy Mudaliyar Rd, Brookefields, Sukrawar Pettai, Ram Nagar, Coimbatore, Tamil Nadu 641001

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**LuLu International Shopping Mall**

**Address:** 34/1000, Old NH 47, Edappally Junction, Nethaji Nagar, Edappally, Kochi, Kerala 682024

**Timings:** 11:00AM - 11:00PM

[Get Directions](#)

**Donut Delight**

1234 Donut Street, Donutville, DN 12345

[Facebook](#) [Twitter](#) [Instagram](#)

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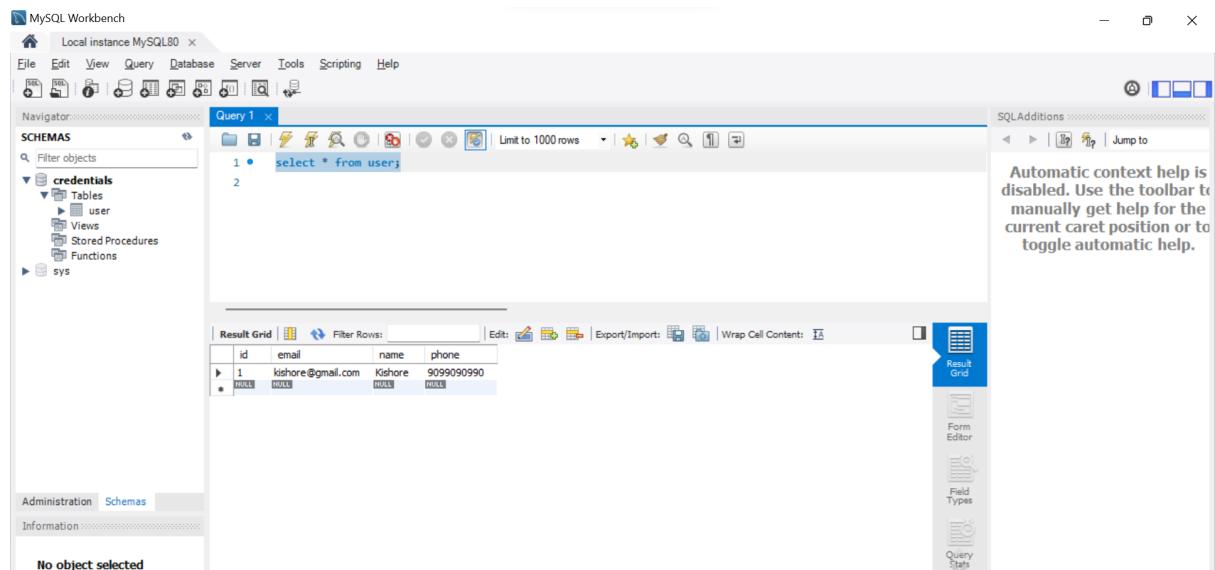
## 5. Menu ( Search option to filter menu items under different category)

The screenshot shows the 'Donut Combos' section of the 'Donut Delight' menu. On the left, there's a sidebar with 'Menu Categories' including 'DONUT COMBOS' (6 items), 'SANDWICHES AND BAKERY' (8 items), 'DONUTS' (15 items), 'HOT BEVERAGES' (8 items), and 'COLD BEVERAGES' (8 items). The main area displays five different donut boxes with their names and prices: 'Classic Box of 6' (₹450), 'ATF Box of 3' (₹330), 'ATF Box of 6' (₹550), 'ATF Box of 12' (₹999), and two 'Delights Best Box' options ('Delights Best Box of 6' (₹650) and 'Delights Best Box of 3' (₹390)). Each item has an 'ADD' button below it.

## 6. Sign Up (Registration)

The screenshot shows a registration overlay on the 'Donut Delight' menu page. The overlay has fields for 'Username' (Kishore), 'Email' (kishore@gmail.com), and 'Phone Number' (+91 9099090990). It includes 'Login' and 'Sign Up' buttons. In the background, the 'Donut Combos' section is visible with the same items and prices as in the previous screenshot. An 'ADD' button is also present at the bottom of the overlay.

## 7. Database



## 8. Cart (update and delete cart items)

The screenshot shows a web-based application for ordering donuts. At the top, there's a navigation bar with links for Home, About-Us, Menu, Feedback, and Locate Us. The main content area is titled "Checkout (3 items)". It displays three items in boxes:

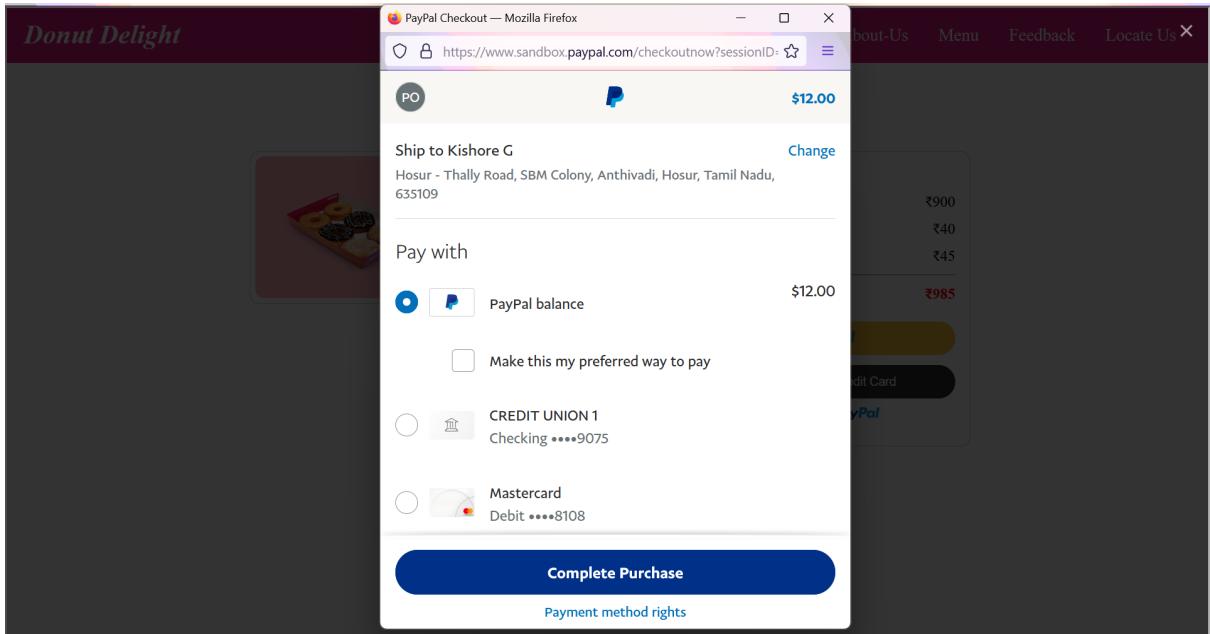
- ATF Box of 3**: ₹330. Quantity: 1. Buttons for Update and Delete.
- Classic Box of 6**: ₹450. Quantity: 1. Buttons for Update and Delete.
- ATF Box of 6**: ₹550. Quantity: 1. Buttons for Update and Delete.

To the right, there's an **Order Summary** table:

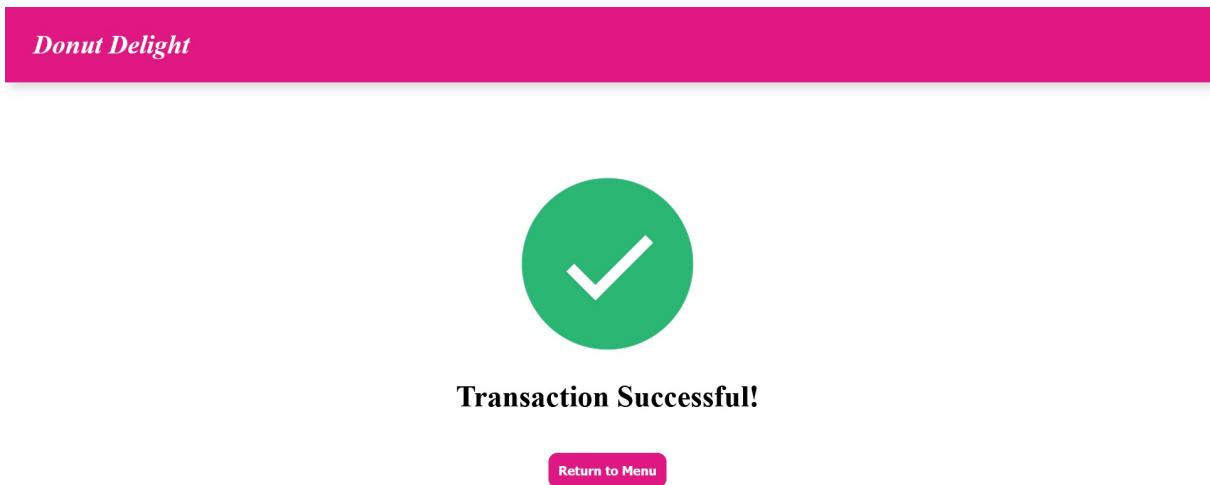
|                  |              |
|------------------|--------------|
| items(3)         | ₹1330        |
| delivery charge: | ₹40          |
| Tax(5%):         | ₹66          |
| <b>Total:</b>    | <b>₹1436</b> |

Below the summary are two payment buttons: a yellow "PayPal" button and a black "Debit or Credit Card" button. A small note at the bottom says "Powered by PayPal".

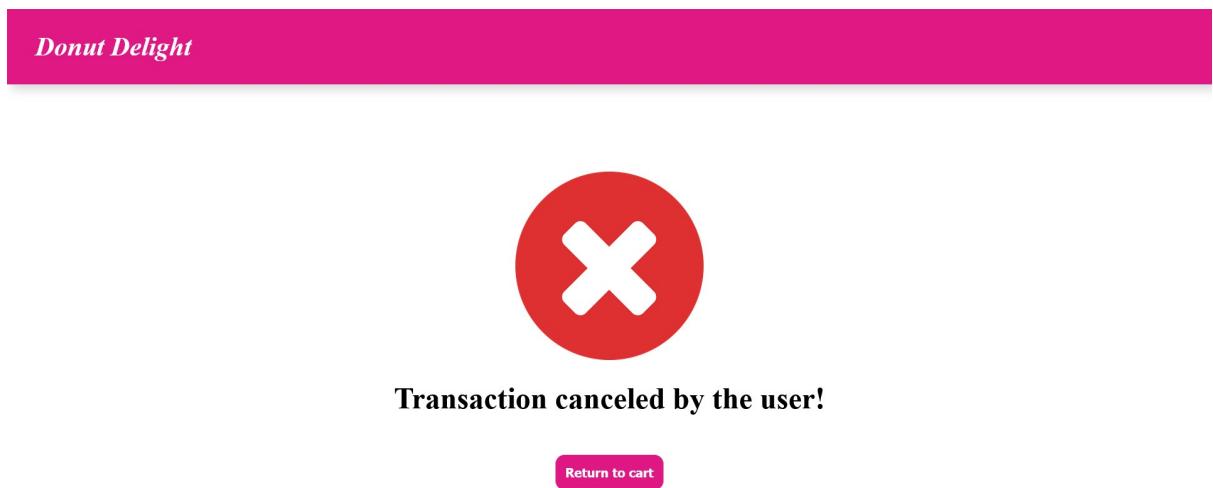
## 9. Payment Gateway (paypal)



## 10. Success Page



## 11. Cancelled Page



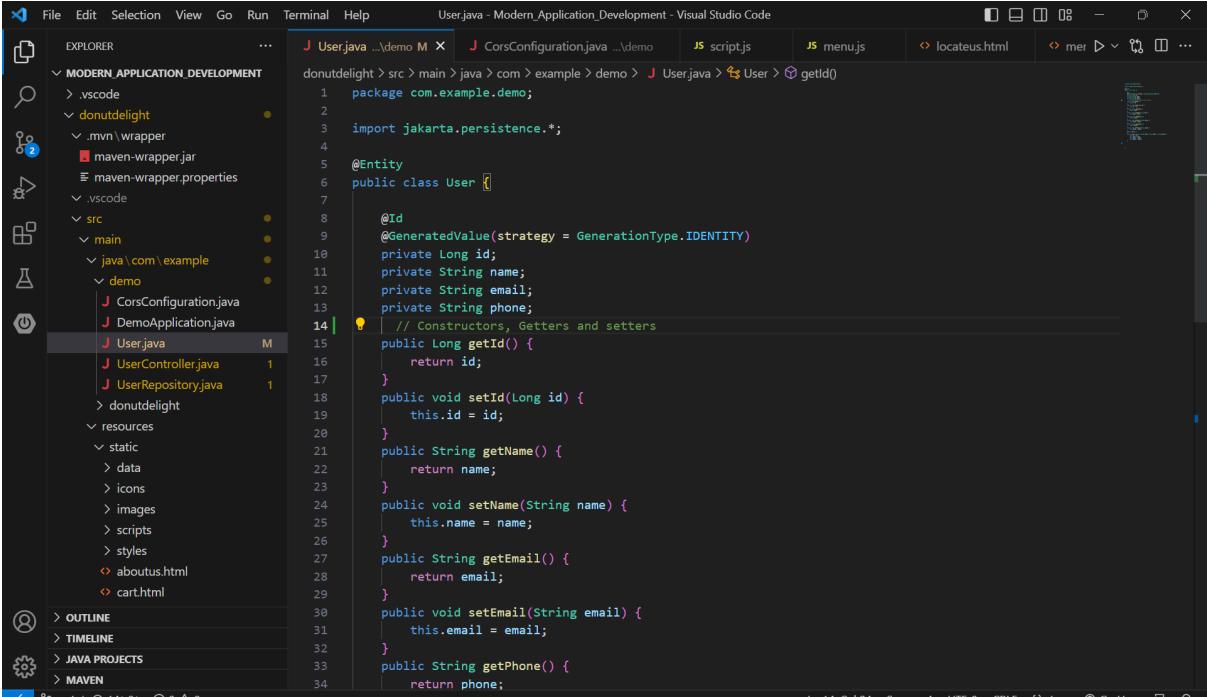
## 12. Database (user details)

A screenshot of MySQL Workbench. The top window is titled "Query 1" and contains the SQL query: "select \* from user;". The result grid below shows the following data:

|   | id   | email              | name         | phone      |
|---|------|--------------------|--------------|------------|
| ▶ | 1    | kishore@gmail.com  | Kishore      | 9099090990 |
|   | 2    | elamaran@gmail.com | Elamaran     | 9092782221 |
|   | 3    | keerthi@gmail.com  | keerthinidhi | 8902737892 |
|   | 4    | kamalesh@gmail.com | kamalesh     | 7872219331 |
|   | 5    | sabari@gmail.com   | Sabari       | 6722940922 |
| * | HULL | HULL               | HULL         | HULL       |

# Backend

## 13. Spring Boot (User.java to store user details)

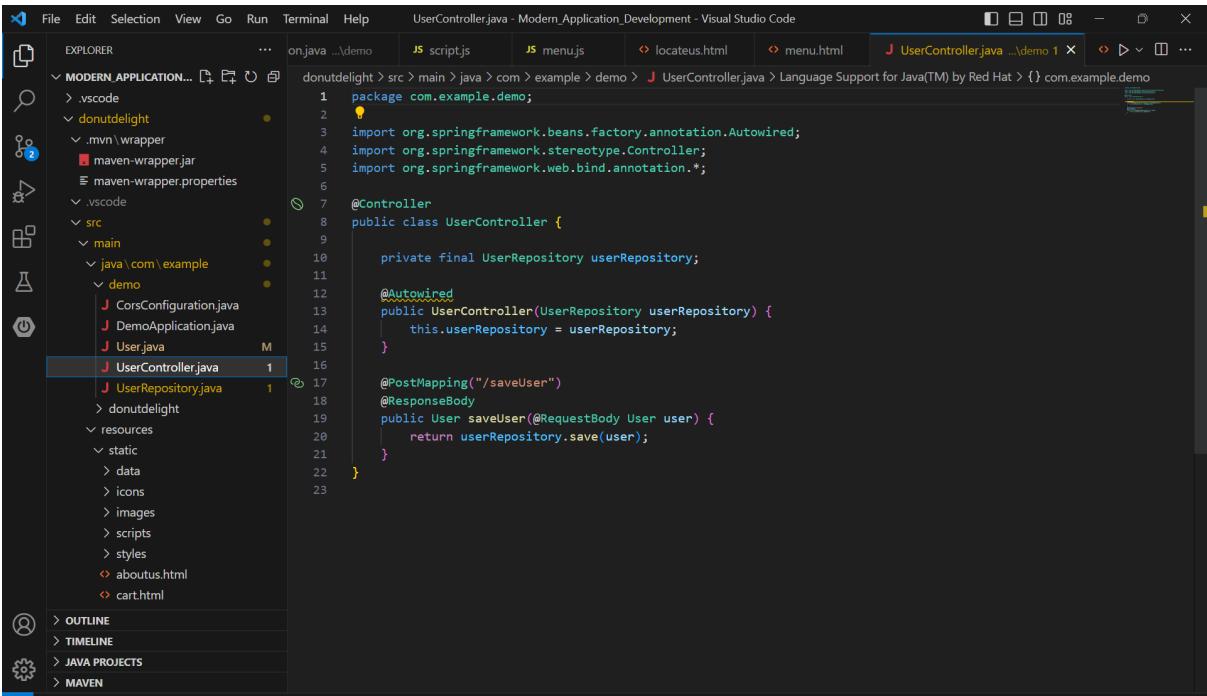


The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under "MODERN\_APPLICATION\_DEVELOPMENT". The "src/main/java/com/example/demo" folder contains "CorsConfiguration.java", "DemoApplication.java", "User.java", "UserController.java", and "UserRepository.java".
- Terminal:** Shows the command "donutdelight > src > main > java > com > example > demo > J User.java > User > getId()".
- Code Editor:** Displays the "User.java" code:

```
1 package com.example.demo;
2
3 import jakarta.persistence.*;
4
5 @Entity
6 public class User {
7
8     @Id
9     @GeneratedValue(strategy = GenerationType.IDENTITY)
10    private Long id;
11    private String name;
12    private String email;
13    private String phone;
14
15    // Constructors, Getters and setters
16    public Long getId() {
17        return id;
18    }
19    public void setId(Long id) {
20        this.id = id;
21    }
22    public String getName() {
23        return name;
24    }
25    public void setName(String name) {
26        this.name = name;
27    }
28    public String getEmail() {
29        return email;
30    }
31    public void setEmail(String email) {
32        this.email = email;
33    }
34    public String getPhone() {
35        return phone;
36    }
37}
```

- Status Bar:** Shows "Ln 14, Col 24" and "Spaces: 4" and "UTF-8".



The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under "MODERN\_APPLICATION\_DEVELOPMENT". The "src/main/java/com/example/demo" folder contains "CorsConfiguration.java", "DemoApplication.java", "User.java", "UserController.java", and "UserRepository.java".
- Terminal:** Shows the command "donutdelight > src > main > java > com > example > demo > J UserController.java > Language Support for Java(TM) by Red Hat > {} com.example.demo".
- Code Editor:** Displays the "UserController.java" code:

```
1 package com.example.demo;
2
3 import org.springframework.beans.factory.annotation.Autowired;
4 import org.springframework.stereotype.Controller;
5 import org.springframework.web.bind.annotation.*;
6
7 @Controller
8 public class UserController {
9
10    private final UserRepository userRepository;
11
12    @Autowired
13    public UserController(UserRepository userRepository) {
14        this.userRepository = userRepository;
15    }
16
17    @PostMapping("/saveUser")
18    @ResponseBody
19    public User saveUser(@RequestBody User user) {
20        return userRepository.save(user);
21    }
22}
```

- Status Bar:** Shows "Ln 1, Col 1" and "Spaces: 4" and "UTF-8".

The screenshot shows the Visual Studio Code interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Terminal:** UserRepository.java - Modern\_Application\_Development - Visual Studio Code
- Code Editor:** UserRepository.java (141 lines, 1 change, 2 errors). The code is as follows:

```
1 package com.example.demo;
2
3 import org.springframework.data.repository.CrudRepository;
4 import org.springframework.stereotype.Repository;
5
6 @Repository
7 public interface UserRepository extends CrudRepository<User, Long> {
8 }
```

- Explorer:** Shows the project structure under MODERN\_APPLICATION... including .vscode, donutdelight, .mvn\wrapper, maven-wrapper.properties, src\main\java\com\example\demo, and UserRepository.java.
- Outline:** Shows the outline of the UserRepository.java file.
- Status Bar:** Ln 1, Col 1 | Spaces: 4 | UTF-8 | CRLF | {} Java | Go Live |

The screenshot shows the Visual Studio Code interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Terminal:** pom.xml - Modern\_Application\_Development - Visual Studio Code
- Code Editor:** pom.xml (34 lines, 1 error). The XML code is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <parent>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-parent</artifactId>
    <version>3.1.1</version>
    <relativePath/> <!-- lookup parent from repository -->
  </parent>
  <groupId>com.example</groupId>
  <artifactId>demo</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>demo</name>
  <description>Demo project for Spring Boot</description>
  <properties>
    <java.version>17</java.version>
  </properties>
  <dependencies>
    <dependency>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-starter-data-jdbc</artifactId>
    </dependency>
    <dependency>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-starter-data-jpa</artifactId>
    </dependency>
    <dependency>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-starter-web</artifactId>
    </dependency>
    <dependency>
      <groupId>org.springframework.boot</groupId>
    </dependency>
  </dependencies>

```

- Explorer:** Shows the project structure under MODERN APPLICATION DEVELOPMENT including scripts, styles, aboutus.html, carthtml, dashboard.html, feedback.html, index.html, locateus.html, menu.html, paymentCancelled.html, paymentSuccess.html, script.js, templates, application.properties, test\java\com\example\demo, DemoApplicationTests.java, and pom.xml.
- Outline:** Shows the outline of the pom.xml file.
- Status Bar:** Ln 27, Col 22 | Tab Size: 4 | UTF-8 | CRLF | {} XML | Go Live |

## **7. ADVANTAGES & DISADVANTAGES**

Advantages:

- Convenience for customers to order donuts online.
- Customization options to cater to individual preferences.
- Time efficiency by eliminating the need to visit physical stores.
- Increased reach and customer base for the bakery or donut shop.

Disadvantages:

- Potential dependency on stable internet connectivity.
- Limited sensory experience compared to in-store purchases.
- Additional resources and infrastructure required for online order management.

## **8. APPLICATIONS**

Donut Delight system can be applied in various scenarios, including:

- Chain of Donut Delight shops providing online ordering options.
- Integration with existing food delivery platforms.

## **9. CONCLUSION**

In conclusion, the development of the Donut Delight system has successfully addressed the limitations of traditional donut ordering processes. The system provides a user-friendly interface, customization options, and convenience for customers, while also benefiting the bakery or donut shop by expanding their customer base and increasing sales.

## **10. FUTURE SCOPE**

In the future, the online donut purchase system can be enhanced by incorporating features such as:

- Integrate popular food delivery apps for seamless delivery services.
- Integration with social media platforms to enable sharing and promotion of donut purchases.
- Enhancing the user interface and user experience based on customer feedback and emerging design trends.