

**SATHYABAMA**  
INSTITUTE OF SCIENCE AND TECHNOLOGY

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## Placement Training - Java Full Stack project

# Online food ordering and reservation system

### **STUDENT NAME**

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**JFS-(ST03)**

# **AGENDA**

1. Introduction
2. Problem statement
3. Feasibility analysis
4. requirement specifications
5. Purpose
6. Scope
7. Overview
8. System Architecture
9. ER diagram
10. Ui/Ux planning
11. Features
12. Conclusion

# INTRODUCTION

- The GreenLeaf Veg Restaurant Management System(online reservation and food delivery ) is a full-stack web application developed to streamline restaurant operations such as menu browsing, order placement, and table reservations.
- It enables customers to interact with the restaurant digitally through an intuitive web interface without requiring any login.
- It leverages Spring Boot, JSP, and MySQL to ensure smooth data flow and reliable backend processing.

# PROBLEM STATEMENT

## Problems in Manual System

- No online ordering or reservation facility.
- Human errors in order handling and record maintenance.
- Difficulty managing large volume of orders manually.
- No centralized dashboard for admin to monitor operations.

## Why Automation is Needed

- Fast and accurate order processing.
- Easy reservation scheduling.
- Better customer satisfaction.
- Streamlined admin operations.

# FEASIBILITY ANALYSIS

## Technical Feasibility

- The system is practical to develop because it uses widely supported technologies such as Java 17, Spring Boot 3.x, and MySQL, which are compatible with most modern systems.
- It can be deployed easily on any machine with a Java runtime and does not require specialized hardware or expensive software.

# Requirement Specifications

## Software Specifications

**Operating System:** Windows 10/11, macOS, or Linux

**Backend Framework:** Spring Boot (Java 17)

**Frontend Technology:** JSP (JavaServer Pages), HTML, CSS, JavaScript

**Database:** MySQL

**Build Tool:** Maven (for building and packaging backend)

**IDE Tools:** IntelliJ IDEA / Eclipse IDE (Backend), any code editor (Frontend)

**Browser:** Google Chrome / Microsoft Edge (for testing and running the app)

**Server:** Embedded Tomcat (default Spring Boot server)

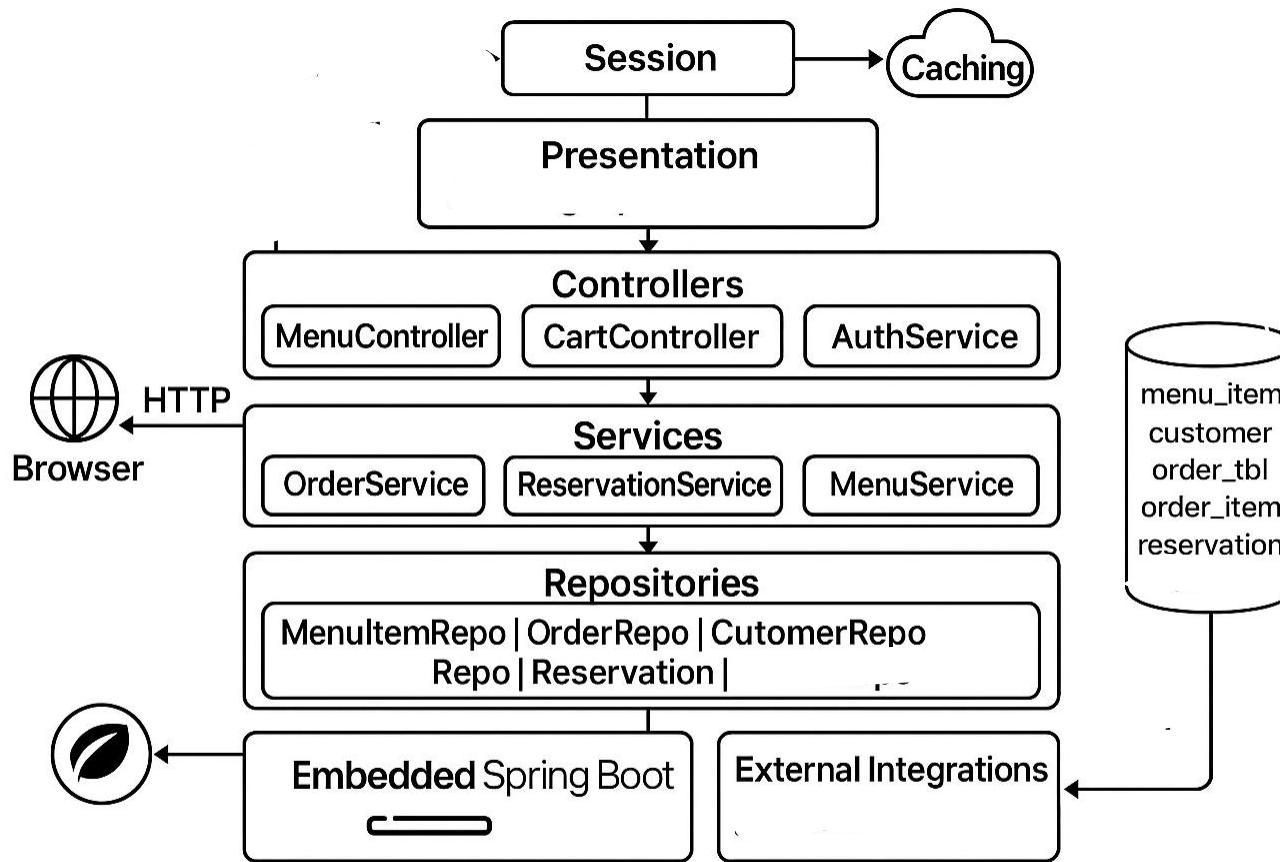
# architecture

- The system is a full-stack web application built using Spring Boot for the backend and JSP for the user interface.
- It follows an MVC structure where controllers handle requests, services process logic, and repositories interact with the database.
- MySQL is used to store all restaurant data, including menu items, orders, order items, reservations, and admin details.
- The application runs in a web browser and allows customers to interact with the system easily.
- Session handling is used to maintain customer carts and admin login during their usage.

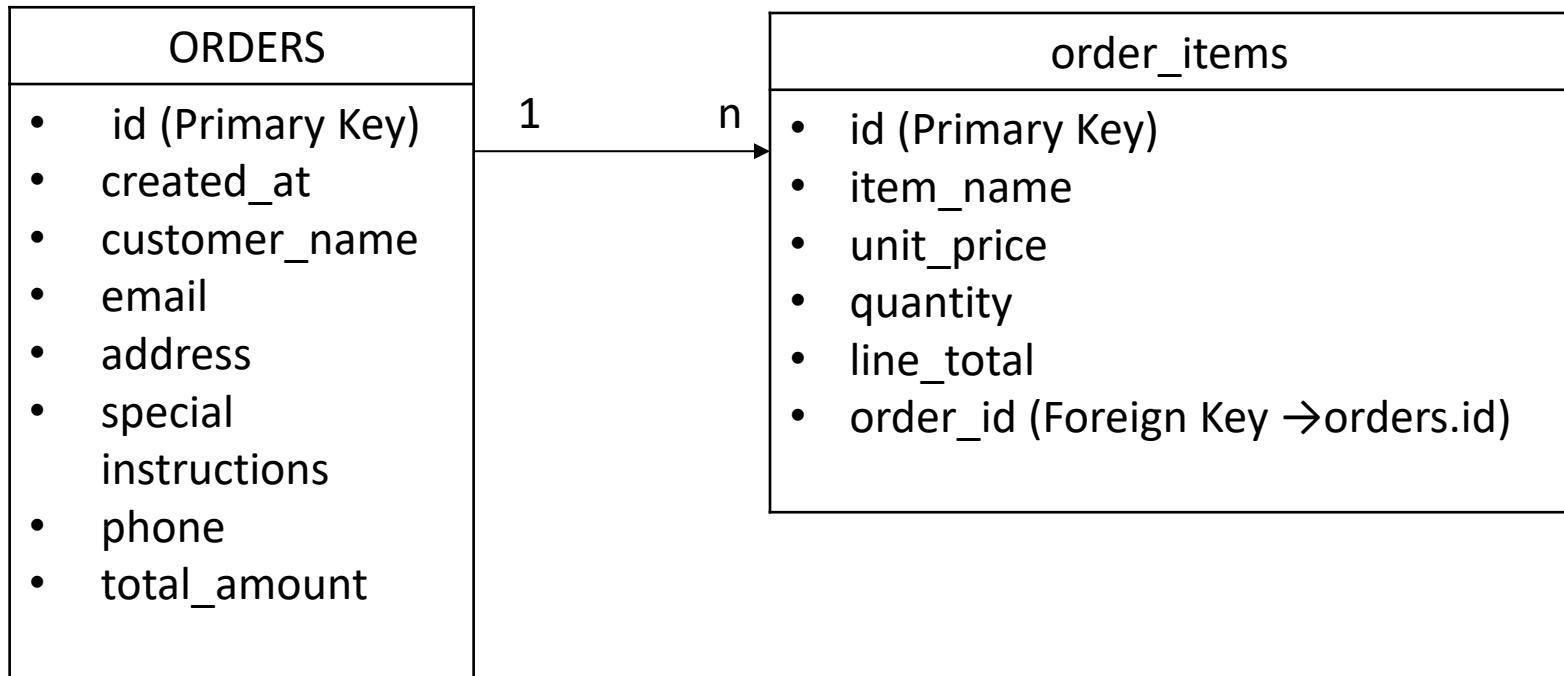
# SYSTEM ARCHITECTURE

- the **presentation layer** is done with HTML,CSS and JS to handle all user interactions for customers and to perform essential operations .
- The **Controllers** receive user requests and connect them to the correct backend functions.
- The **Service layer** processes the main business logic such as placing orders and handling reservations.
- The **Repository layer** communicates with the MySQL database to store and retrieve all required data.
- Data flows smoothly from the user → controller → service → repository → database and back to the user interface.
- The system is built using a layered architecture to keep the application

# ARCHITECTURE DIAGRAM



# ENTITY RELATIONSHIP DIAGRAM



# ENTITY RELATIONSHIP DIAGRAM

.

## RESERVATIONS

- id (Primary Key)
- customer\_name
- email
- phone
- reservation\_date
- start\_time
- end\_time
- table\_number
- guests
- notes
- preferences
- created\_at

# SCREENSHOTS

GREENLEAF VEG

Home   About   Menu   Cart   Reservations   Contact

## Welcome to GreenLeaf Veg Restaurant

Fresh, delicious and 100% vegetarian dishes crafted with love.  
Dine-in, reserve a cozy table or order online in just a few clicks.

Order Online

Reserve a Table

PURE VEG · HOMELY TASTE · FAST SERVICE

Open Today: 11:00 AM – 11:00 PM

# ABOUT

GREENLEAF VEG

Home    About    Menu    Cart    Reservations    Contact

## About Our Restaurant

GreenLeaf Veg Restaurant brings you a modern vegetarian dining experience with classic flavours, hygienic kitchen and friendly service.



### 100% Vegetarian

No egg, no meat – only fresh and flavourful vegetarian dishes.



### Fresh Ingredients

Locally sourced vegetables and handpicked spices prepared daily.



### Online Ordering

Order your favourites, add to cart and get an instant total in ₹.

# MENU PAGE

The screenshot shows a web application for an online menu. At the top, the URL is localhost:8080. The header includes the restaurant name "GREENLEAF VEG" and navigation links for Home, About, Menu, Cart, Reservations, and Contact.

The main content area features a title "Online Menu" and a sub-instruction "Tap 'Add to Cart' to start your order. Use the categories to filter." Below this, there are several category filters: All, Starters, North Indian, South Indian, Main Course, Beverages, Desserts, and Bestsellers.

The menu items are displayed in a grid:

- Veg Spring Rolls**: ₹150. Description: Golden-fried rolls stuffed with sautéed veggies and light spices. Add button.
- Paneer Tikka**: ₹220. Description: Marinated cottage cheese grilled in the tandoor with capsicum & onions. Add button.
- Crispy Corn**: ₹170. Description: Crunchy fried corn kernels tossed with herbs, chilli and lemon. Add button.
- Chilli Paneer (Dry)**: ₹210. Description: Indo-Chinese style paneer tossed in spicy chilli-garlic sauce. Add button.

To the right, a sidebar titled "Your Cart" lists the items currently selected:

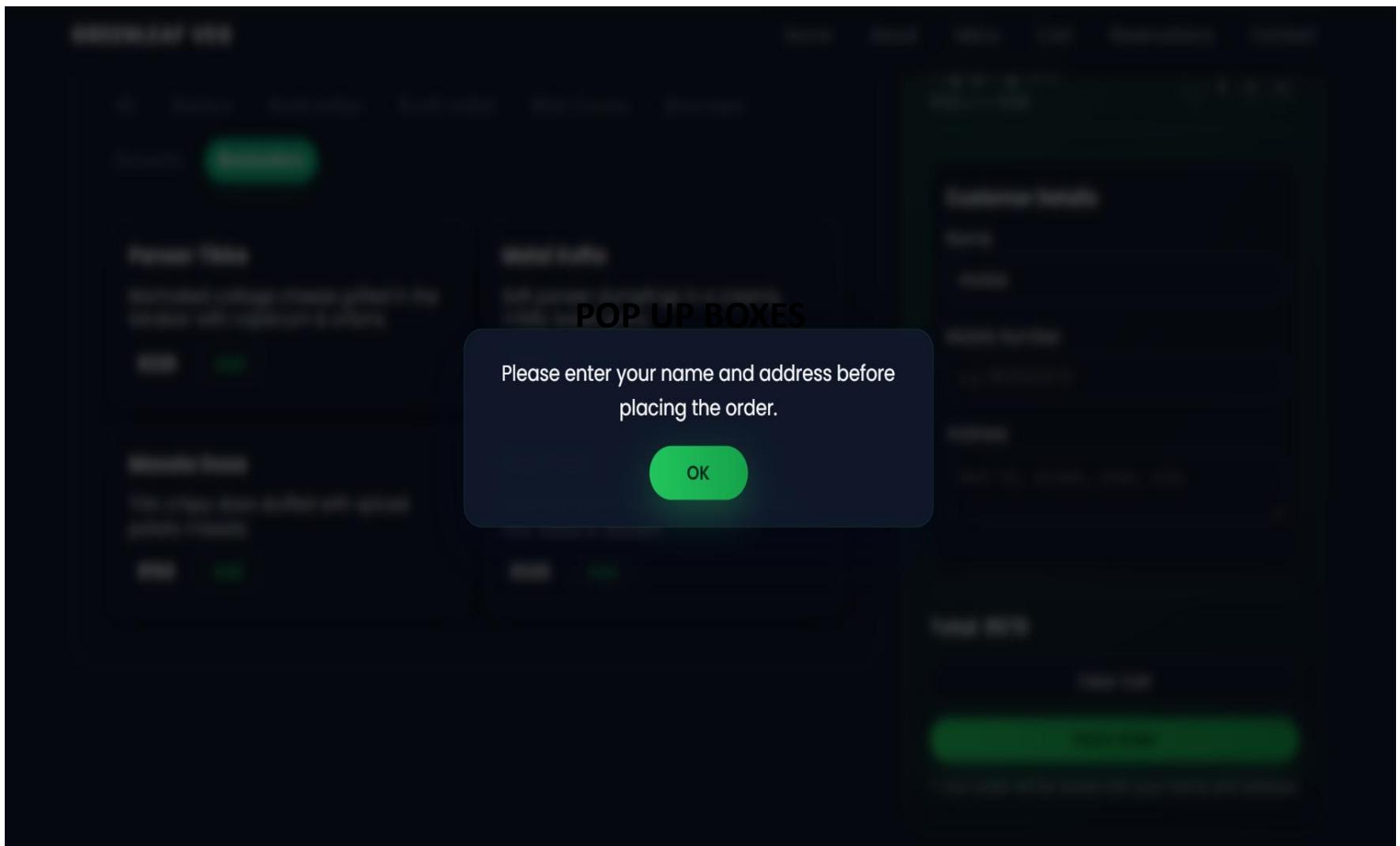
- Paneer Butter Masala: ₹260 x 2 = ₹520 (Quantity: 2)
- Veg Spring Rolls: ₹150 x 1 = ₹150 (Quantity: 1)

At the bottom of the sidebar, the total amount is shown as **Total: ₹670**.

The sidebar also contains a "Customer Details" section with fields for Name (monica), Mobile Number (e.g. 9876543210), and Address (Door no, street, area, city).

At the bottom of the page, the date is 18 December 2025, and the footer reads School of Computing - CSE. The page number is 14.

# POP UP BOXES



# ORDER CONFIRMED PAGE



## Order Confirmed!

Your delicious meal is being prepared. Thank you for ordering from Greenleaf Veg.

Order Details	
Customer :	monica
Phone :	6379054271
Address :	my address for order
Order ID :	84311
Total Amount :	670

Items Ordered	
•	Paneer Butter Masala x 2 — ₹520
•	Veg Spring Rolls x 1 — ₹150

[Back to Home](#)

# RESERVATION PAGE

GREENLEAF VEG

Home

About

Menu

Cart

Reservations

Contact

## Reserve a Table

Avoid waiting! Reserve your table in advance and enjoy a relaxed dining experience.

- Each reservation is for 1 hour 30 minutes.
- No reservations before 11:00 AM and after 11:00 PM.
- If a table is already booked for a time slot, the system will ask you to choose another table or time.

Full Name

Enter your name

Mobile Number

Optional

Email

Number of Guests

2

Guests: 2 – Small (1-2 guests) – tables 1 to 10

Table Number

Select a table

Allowed tables based on guests: Small (1-2 guests) – tables 1 to 10

Date

dd-mm-yyyy

Start Time



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Special Requests

# RESERVATION CONFIRMATION PAGE



## Reservation Confirmed!

Thank you, your table is booked. We look forward to serving you.

Reservation Details	
Name :	monica
Phone :	9629573190
Date :	2025-12-29
Time :	11:00
Table :	11
Guests :	5
Special Requests :	please make arrangements for a birthday celebration

[Back to Home](#)

# FEATURES

- The system allows customers to browse the complete restaurant menu and add items to a session-based cart for quick and easy ordering.
- It provides a smooth checkout process where customers can place orders using only their name and phone number .
- A built-in reservation module lets customers book tables by selecting the date, time, and party size.
- The system ensures structured data storage using MySQL and delivers dynamic content through JSP pages and Spring Boot services.

# CONCLUSION

The GreenLeaf Restaurant Management System (online reservation and food delivery) provides a simple and efficient way to handle menu browsing, order placement, and table reservations through a user-friendly web interface. Overall, the system improves customer convenience, reduces manual effort, and creates a smooth digital restaurant experience for users, that can be expanded with additional features in the future.