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Placement Training - Java Full Stack project

Online food ordering and reservation system

STUDENT NAME

Monica . K , Bhavatharani. P , Priyadharshini . G

(REG NO – 43110526,43110594,43110691)

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.

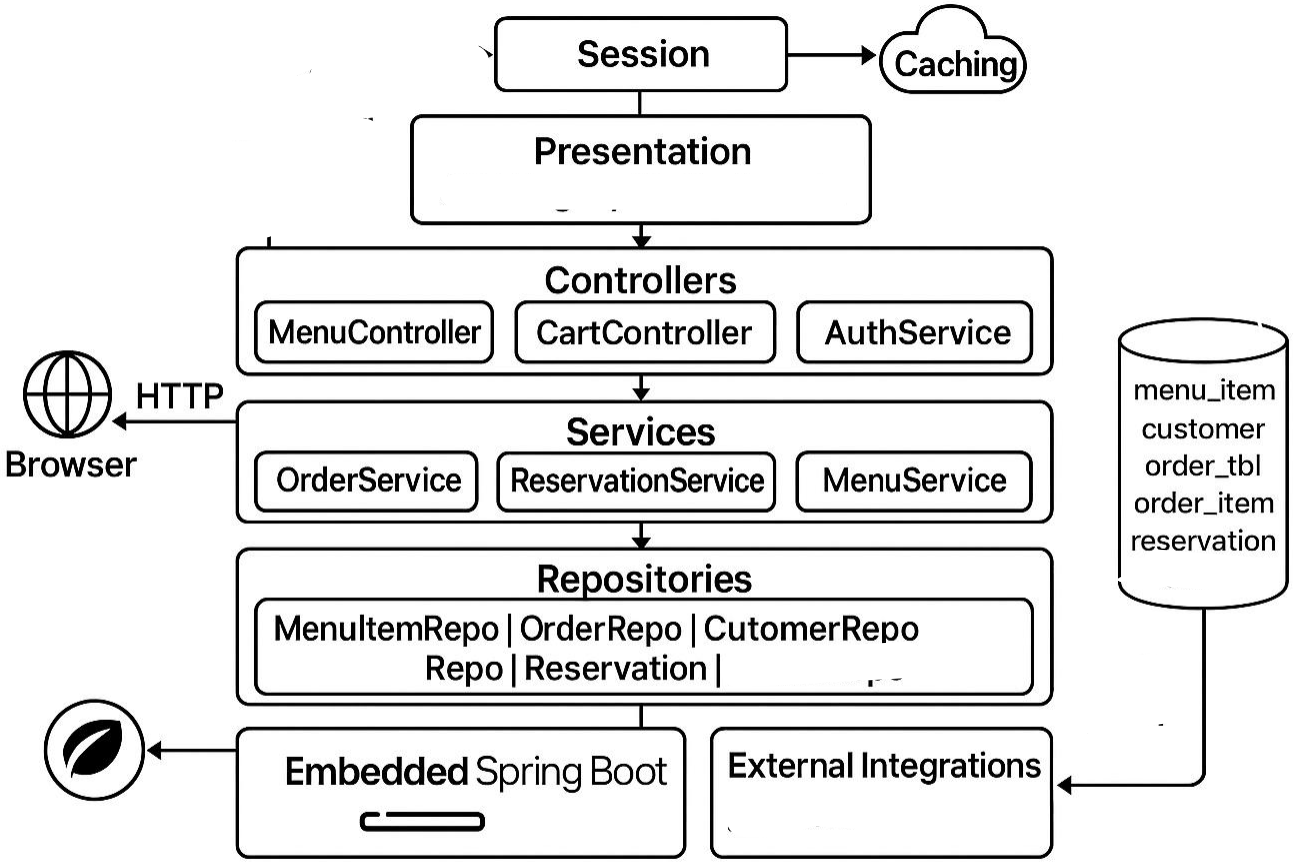
•The **Service layer** processes the main business logic such as placing orders and handling reservations.

•The **Repository layer** communicates with the MySQL database to store and retrieve all required data.

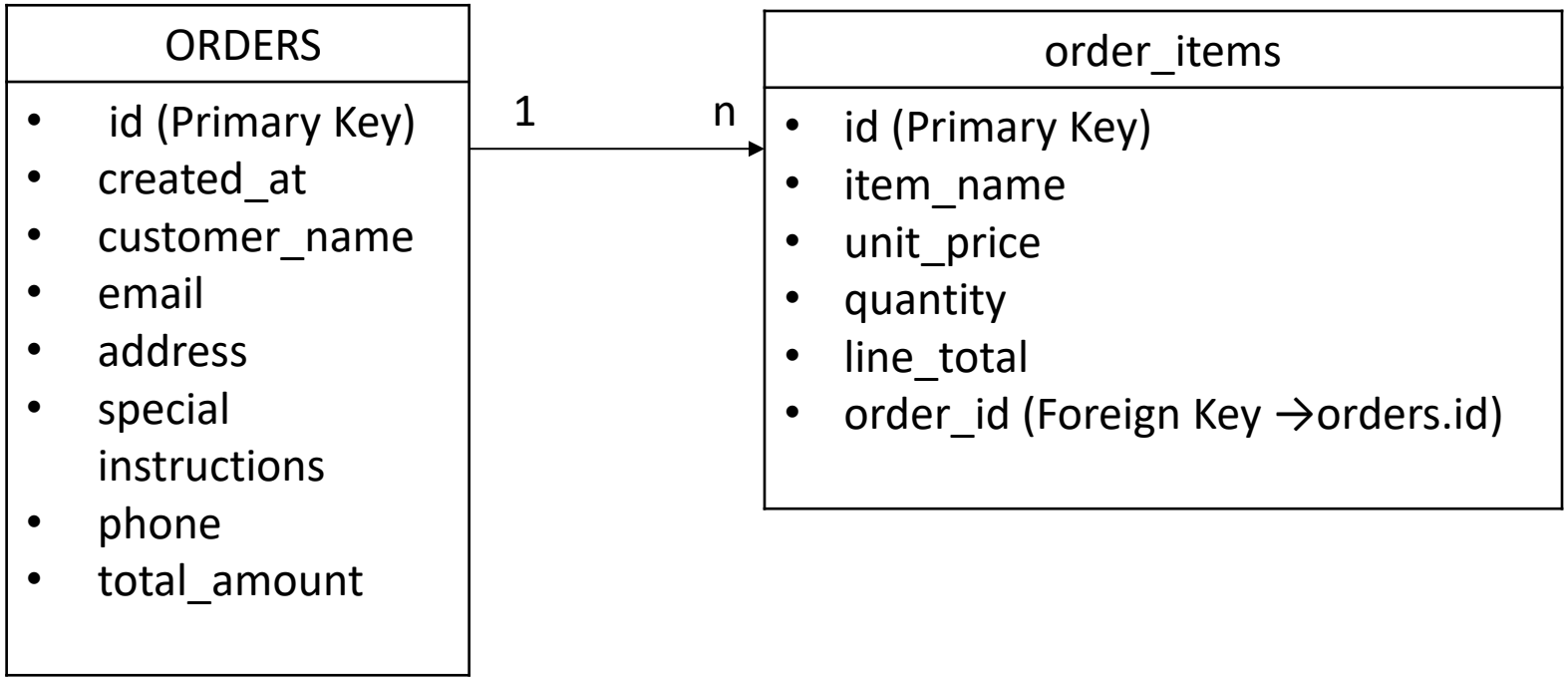
•Data flows smoothly from the user → controller → service → repository → database and back to the user interface.

•The system is built using a layered architecture to keep the application

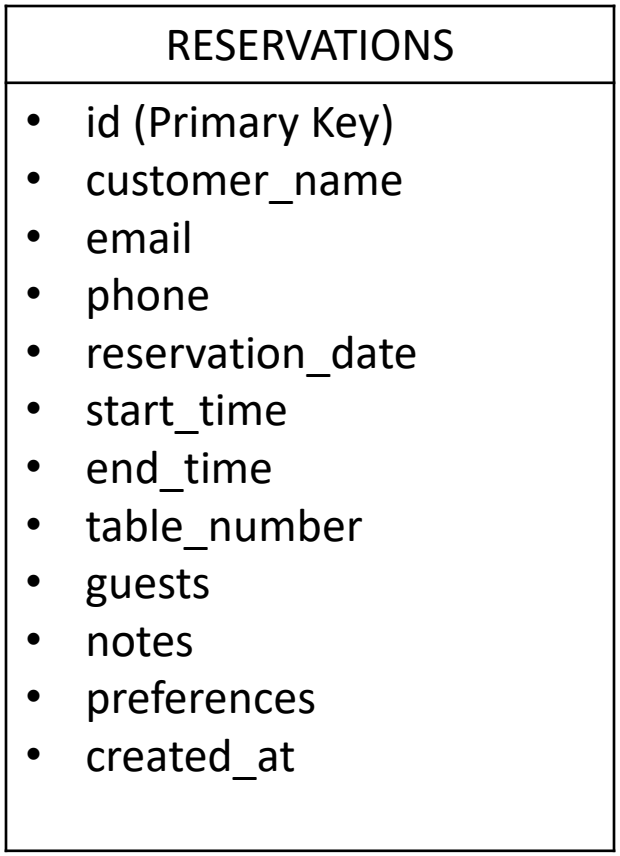
ARCHITECTURE DIAGRAM



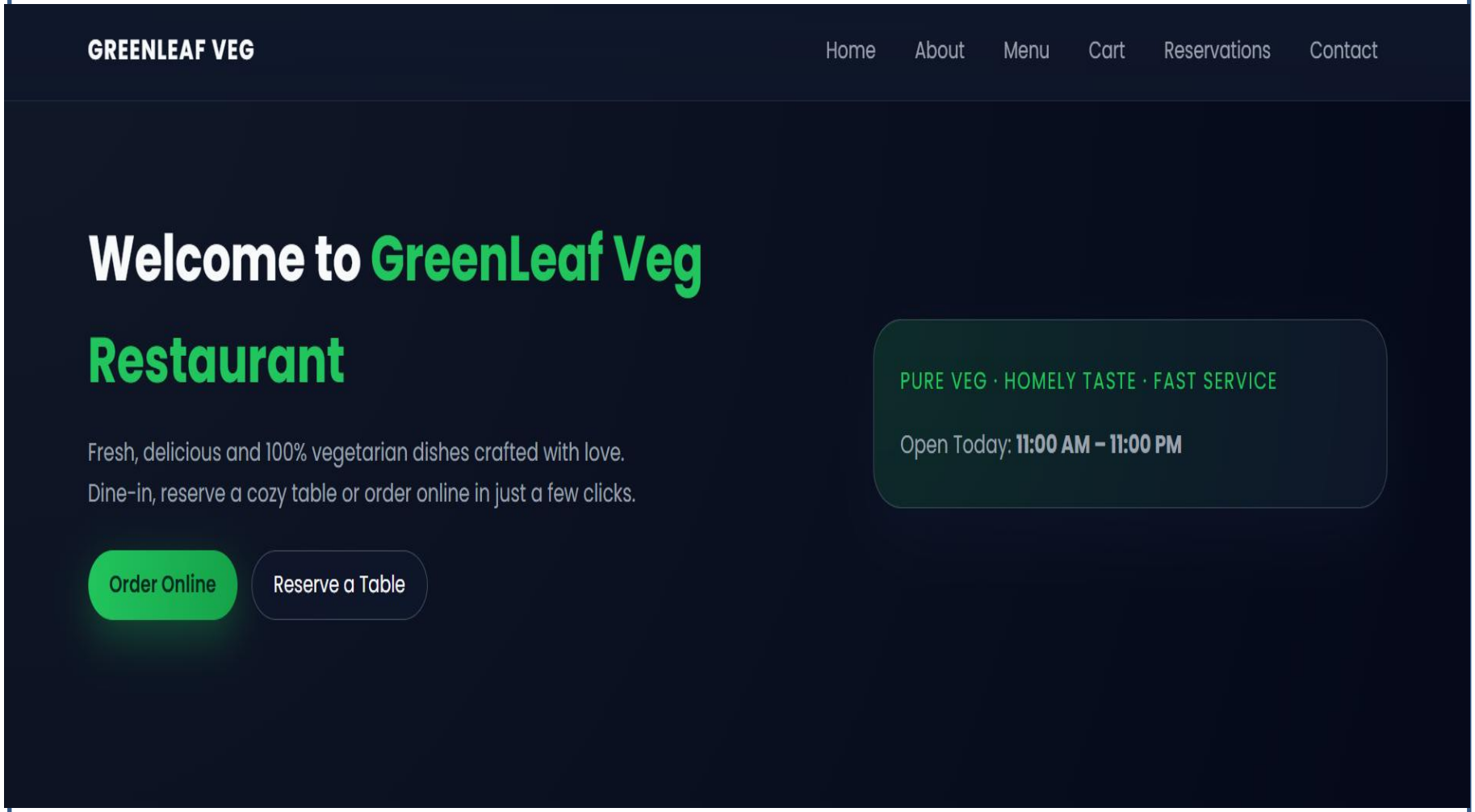
ENTITY RELATIONSHIP DIAGRAM



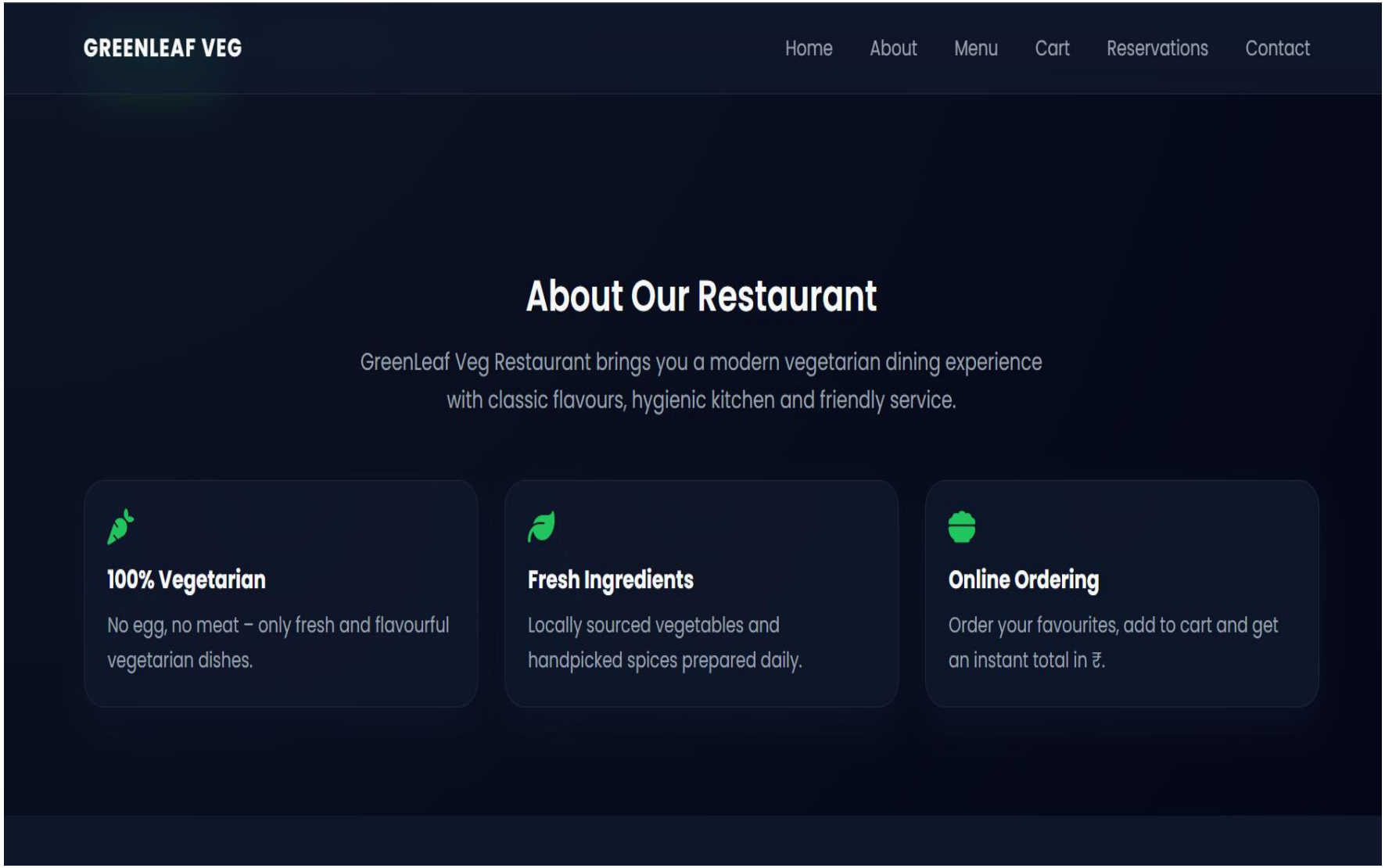
ENTITY RELATIONSHIP DIAGRAM



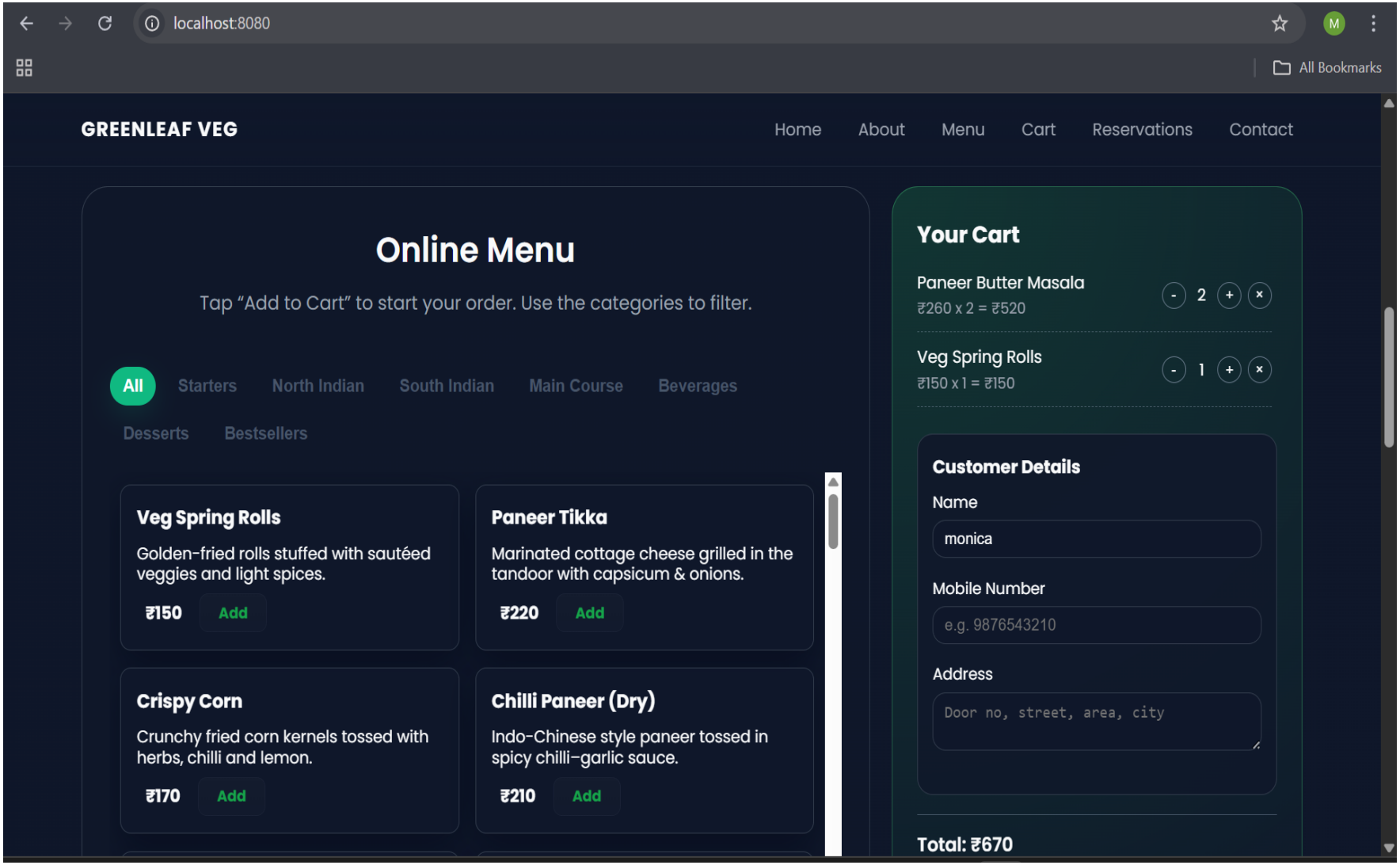
SCREENSHOTS



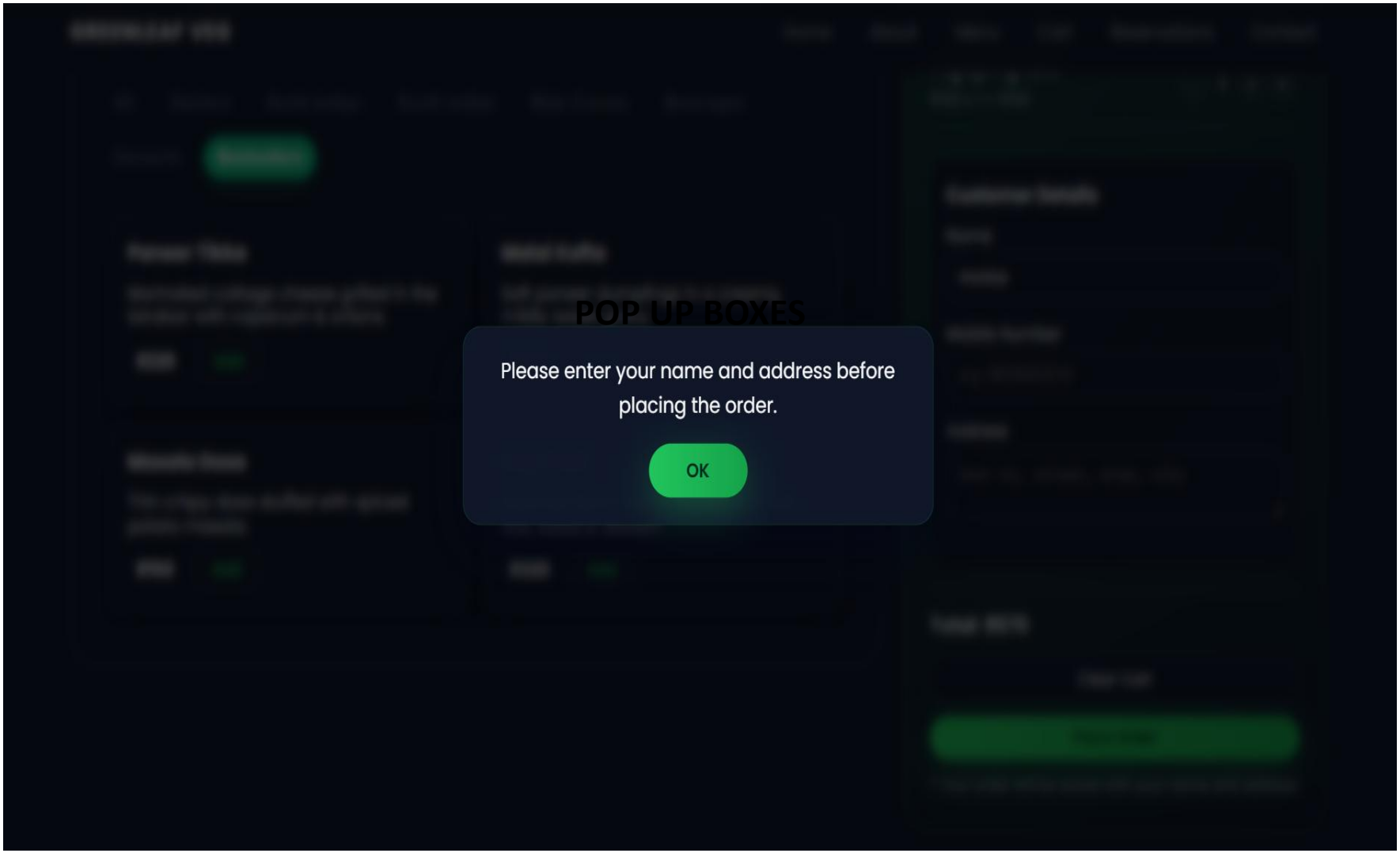
ABOUT


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 ₹.

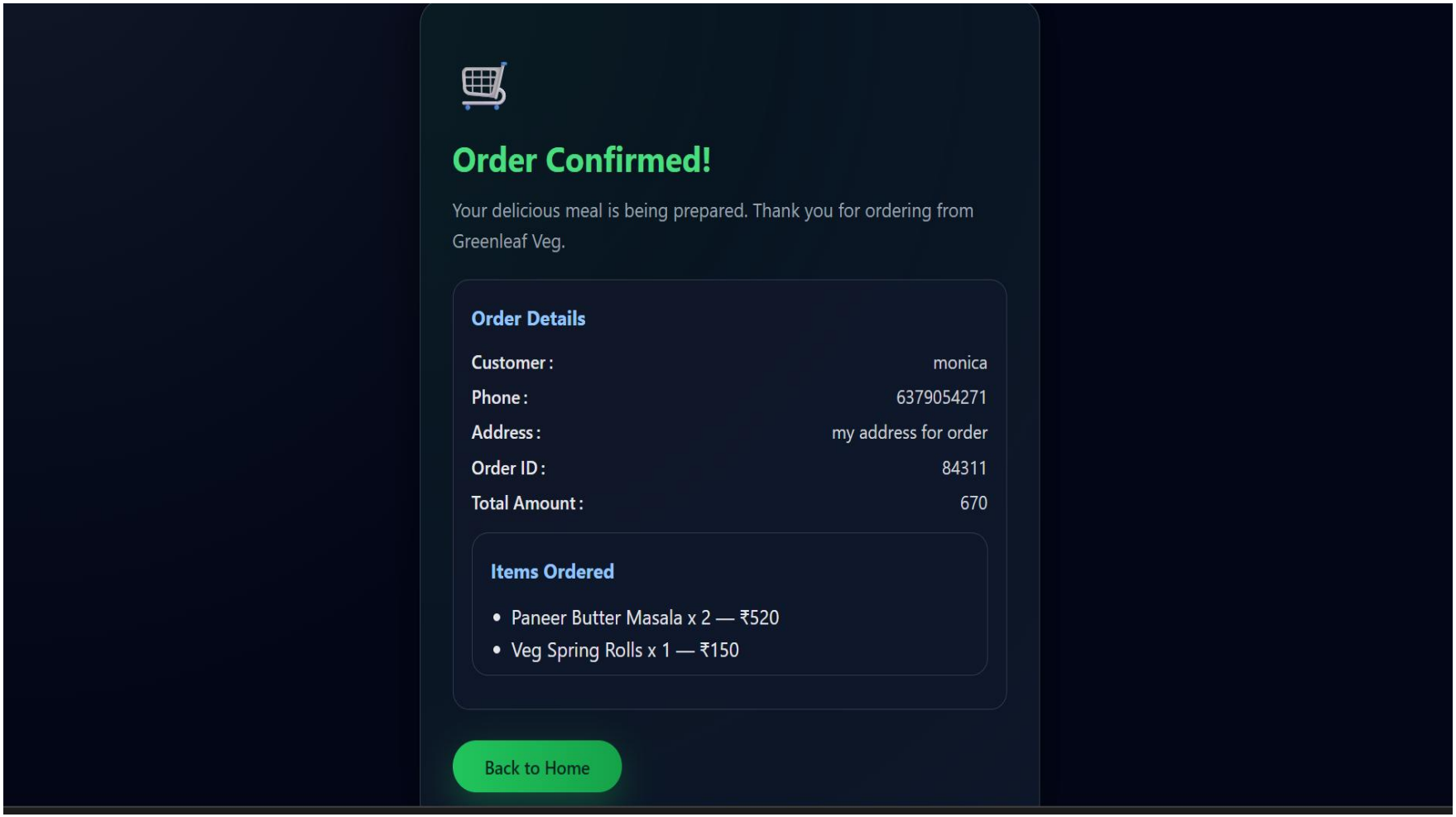
MENU PAGE


localhost:8080
All Bookmarks
GREENLEAF VEG
Home
About
Menu
Cart
Reservations
Contact
Online Menu
Tap "Add to Cart" to start your order. Use the categories to filter.
All
Starters
North Indian
South Indian
Main Course
Beverages
Desserts
Bestsellers
Veg Spring Rolls
Golden-fried rolls stuffed with sautéed veggies and light spices.
₹150
Add
Paneer Tikka
Marinated cottage cheese grilled in the tandoor with capsicum & onions.
₹220
Add
Crispy Corn
Crunchy fried corn kernels tossed with herbs, chilli and lemon.
₹170
Add
Chilli Paneer (Dry)
Indo-Chinese style paneer tossed in spicy chilli-garlic sauce.
₹210
Add
Your Cart
Paneer Butter Masala
₹260 x 2 = ₹520
2
Veg Spring Rolls
₹150 x 1 = ₹150
1
Customer Details
Name
monica
Mobile Number
e.g. 9876543210
Address
Door no, street, area, city
Total: ₹670

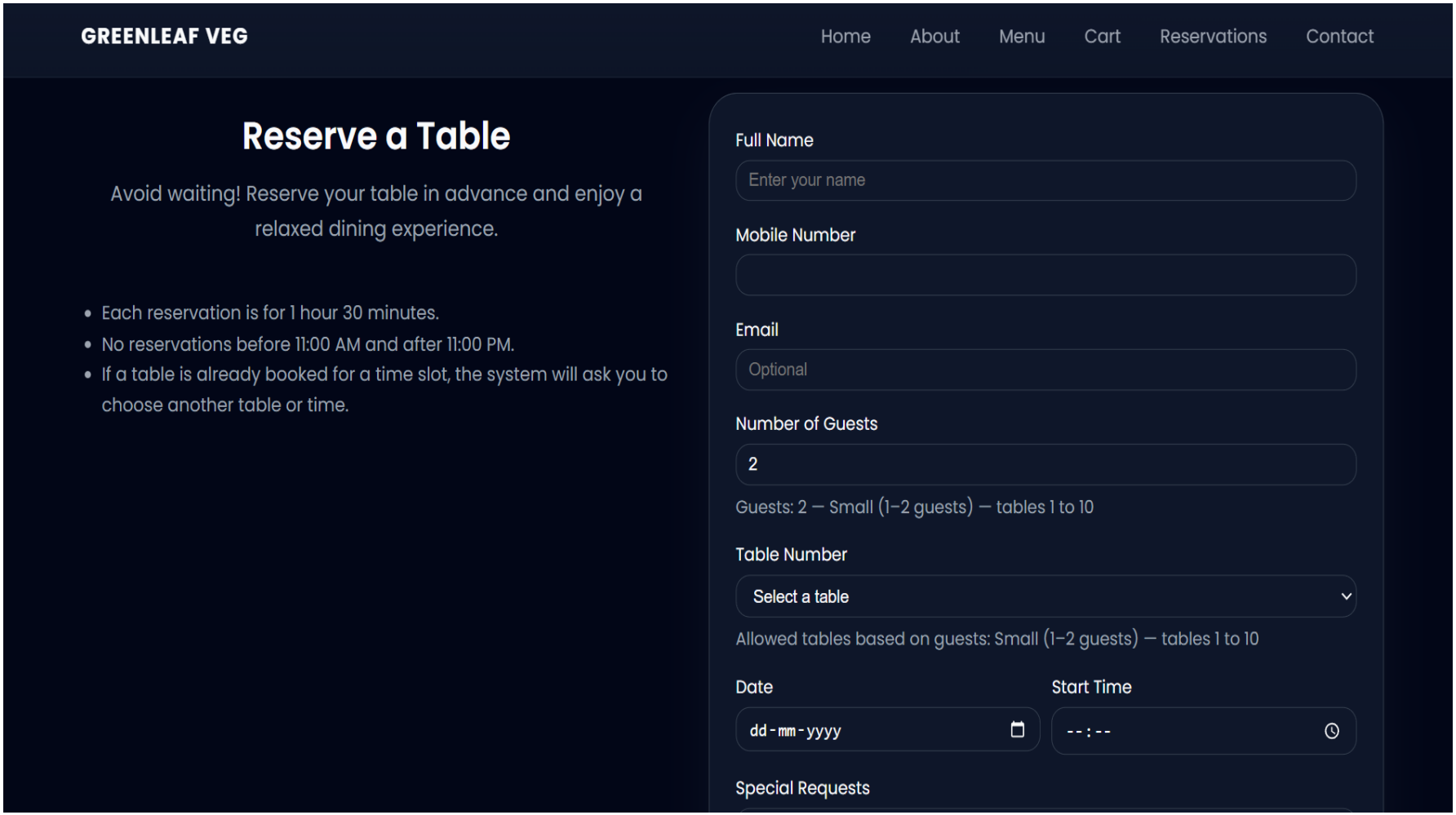
POP UP BOXES


POP UP BOXES
Please enter your name and address before placing the order.
OK

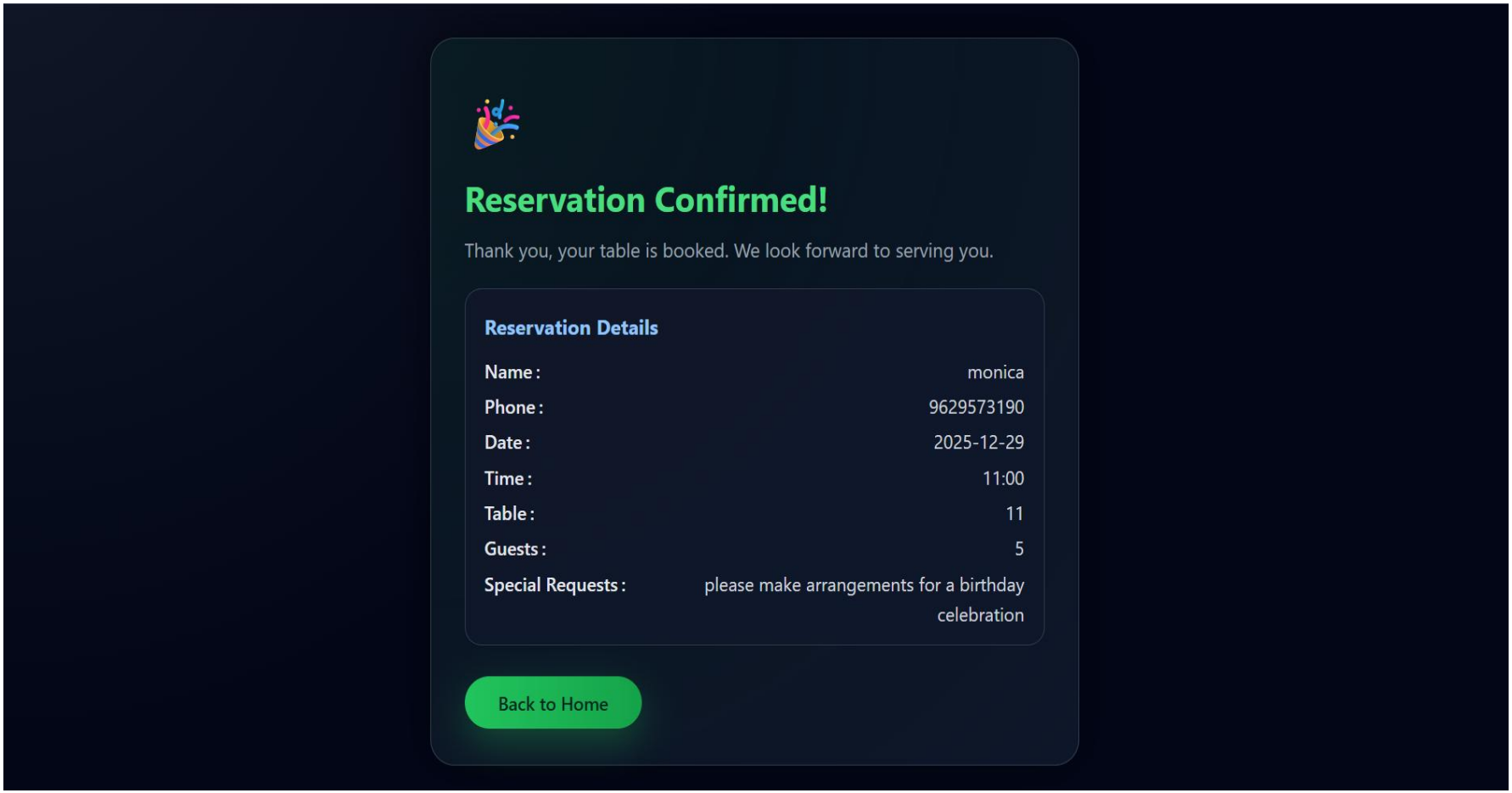
ORDER CONFIRMED PAGE



RESERVATION PAGE



RESERVATION CONFIRMATION PAGE



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.