Restaurant Management System

Project Overview and Workflow

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Introduction

- The Restaurant Management System is a web-based application developed using the Laravel PHP framework.
- It streamlines and automates daily restaurant operations, including food menu, orders, table bookings, customer reviews, and employee management.
- The system is designed for both administrators and customers, with role-specific features and permissions.

Project Objectives

- Simplify restaurant operations through digital management.
- Provide a user-friendly interface for staff and customers.
- Ensure secure authentication and role-based access.
- Enable efficient handling of orders, bookings, and reviews.

Main Features

- **Menu Management:** Manage food items, categories, and prices.
- **Table Booking:** Allow customers to book tables online.
- **Order Management:** Place, update, and track orders.
- **Cart System:** Customers can add items to their cart before ordering.
- **Invoice Generation:** Automatic invoice creation for completed orders.
- **Customer Reviews:** Collect and display feedback from customers.
- **Authentication:** Secure login and registration for all users.
- **Employee Management:** Add, update, view, and remove employees.

User Roles

- **Administrator:** Manages menu, tables, reservations, reviews, and employees. Has full access to all system features.
- **Customer:** Browses menu, books tables, places orders, and leaves reviews.

How the System Works

1. Users register and log in based on their roles.
2. Administrators manage the restaurant's resources such as reservations, food items, and tables.
3. Customers browse the menu, add items to the cart, and place orders or book tables.
4. Invoices are automatically generated, and customers can leave feedback.
5. All actions are secured and logged for accountability.

Database Tables

- The system uses a relational database to store and manage data.
- **Total number of tables: 9**
- The main tables include:
    - users
    - employees
    - foods
    - orders
    - tables
    - books
    - reviews
    - carts
    - invoices

Database Table Structures

Summary of Main Tables and Columns:

- **users:** id, name, email, password, role
- **employees:** id, name, role, phone, salary, shift_timing, date_of_joining
- **foods:** id, name, description, price, image, category
- **orders:** id, user_id, total_amount, status
- **tables:** id, table_number, capacity, status
- **reviews:** id, user_id, rating, comment
- **carts:** id, user_id, food_id, quantity
- **invoices:** id, order_id, amount
- **books:** id, user_id, table_id, date, time, status

Technology Stack

- **Backend:** Laravel (PHP)
- **Frontend:** Blade templating engine, HTML, CSS, JavaScript
- **Database:** MySQL
- **Authentication:** Laravel Fortify and Jetstream
- **Deployment:** Hostinger
- **Other Tools:** Composer, NPM, Livewire

Conclusion

- The Restaurant Management System provides a comprehensive solution for managing restaurant operations efficiently.
- It enhances productivity, improves customer experience, and ensures secure, role-based access to all features.
- The modular design allows for easy maintenance and future expansion.

Thank you!