Project Report: Restaurant Management Web Application

# Project Title

Smart Restaurant Management System (Django Web Application)

# Objective

To design and implement a fully functional web-based platform for managing a restaurant’s menu, table reservations, customer feedback, and online ordering using Django.

# Technologies Used

- Backend: Django (Python Web Framework)  
- Frontend: HTML, CSS, Bootstrap  
- Database: SQLite  
- Authentication: Django’s built-in User model  
- Media Handling: Django ImageField

# Project Architecture

## Project Structure

Restaurant/  
├── Restaurant\_Project/  
│ ├── manage.py  
│ ├── db.sqlite3  
│ ├── Base\_App/  
│ │ ├── models.py  
│ │ ├── views.py  
│ │ ├── admin.py  
│ └── Media/  
│ └── items/

## Major Modules

- Base\_App: Main Django application managing the restaurant’s logic.  
- Media: Folder for storing images (menu items, feedback photos).

# Core Functionalities & Models

## 1. Menu Management

- ItemList: Stores food categories (e.g., Drinks, Pizzas).  
- Items: Each food item with name, price, description, image, and category.

## 2. Customer Interaction

- BookTable: Enables users to book tables with name, contact info, number of people, and date.  
- Feedback: Allows users to leave reviews, ratings, and optional images.

## 3. Ordering System

- Cart: Logged-in users can add food items to a virtual cart with quantities.

## 4. Informational Page

- AboutUs: Stores the restaurant’s description.

# Authentication

Integrates with Django’s User model. Cart functionality is linked to logged-in users.

# Media Handling

Food and feedback images are uploaded to folders like 'items/' and 'feedback/'.

# Admin Features

All models are assumed to be registered in admin.py for backend CRUD operations.  
Admins can manage menu items, bookings, feedback, and orders.

# Project Demonstration

A video file titled '32c45834-50ce-43d5-8b21-0bc297cf6602.mp4' (~42 MB) is included. It likely demonstrates:  
- The user interface for browsing the menu.  
- Table booking form.  
- Feedback submission.  
- Cart and ordering functionality.  
- Admin panel usage.

# Conclusion

This Django project provides a complete and scalable solution for restaurant digitalization. It improves operational efficiency through online table reservations, menu browsing, customer feedback, and food ordering.

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