

## **1. Title: Online Food Ordering System**



## **2. Project Statement:**

The Multi Restaurant Online Food Ordering System Project using Django with AI ensures a seamless experience for all involved. As an administrator, you can easily add food categories to the system. Restaurants can register themselves in the system and, after logging in, can add multiple delivery persons and food items by selecting the categories defined by the admin. Essentially, multiple restaurants can add their multiple foods to the system.

## **Outcomes:**

Customers can browse, add food to their cart, and place orders with AI based food recommendations. Restaurants can manage their menus, assign delivery personnel, and track orders. Delivery personnel can view and update order statuses with real time delivery tracking. Admins can manage food categories, oversee system activities, and ensure smooth operations. The system improves efficiency and user experience by automating key processes and providing valuable insights.

## **3. Modules to be implemented:**

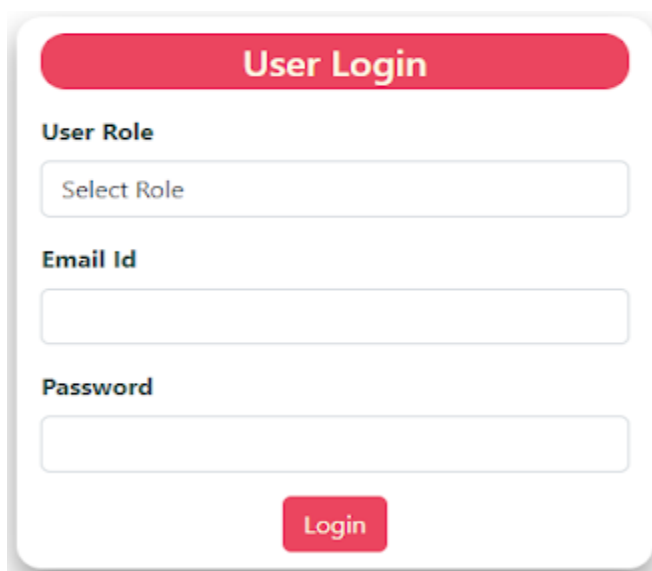
1. ADMINISTRATOR MODULE
2. RESTAURANT MODULE
3. CUSTOMER MODULE
4. DELIVERY MODULE
5. FEEDBACK MODULE

#### 4. Week wise module implementation and high level requirements with output screenshots.

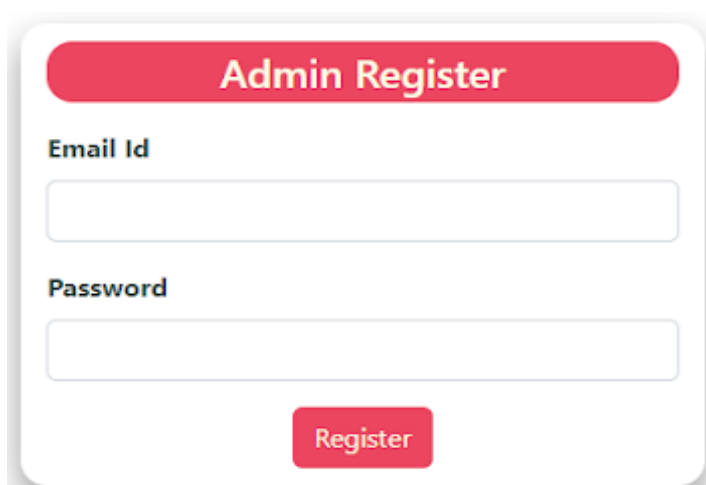
##### Milestone 1: Weeks 1-3

##### Module 1: User Authentication and Registration

- The registration and login system has been added so that only authenticated users (Admin, Restaurant, Delivery, or Customer) can perform their functionalities. For authentication, we will use Django's built in authentication system.
- After successful login, display the profile section with a picture.
- Integrate email verification and password reset features.
- Write test cases using Django's testing framework for all the services with code coverage.
- Implement respective module frontend using Django templates and write test cases for frontend logic.
- Form validations must be implemented for all the services.
- Output screenshot:



A screenshot of a 'User Login' form. The form has a pink header with the text 'User Login'. Below the header, there are three input fields: 'User Role' with a dropdown menu showing 'Select Role', 'Email Id', and 'Password'. At the bottom of the form is a pink button labeled 'Login'.



A screenshot of an 'Admin Register' form. The form has a pink header with the text 'Admin Register'. Below the header, there are two input fields: 'Email Id' and 'Password'. At the bottom of the form is a pink button labeled 'Register'.

## Module 2: Restaurant Management

- The restaurant can register itself by using a provided form.
- The restaurant can register the Delivery Person by using a provided form.
- The restaurant can add its food items.
- Integrate AI tools with Django to generate content for food items and post order details in the application.
- Restaurant owners can ask AI based questions to the customers to suggest the best food items for their requirements.
- The restaurant can view all its foods and update them as needed.
- The restaurant can assign a delivery person for an order.
- Write test cases using Django's testing framework for all the services with code coverage.
- Implement respective module frontend using Django templates and write test cases for frontend logic.
- Form validations must be implemented for all the services.
- Output screenshot:

The screenshot shows a registration form with a pink header bar containing the text "Register Here!!!". Below the header, there are eight input fields arranged in four rows and two columns. The first row contains "First Name" and "Last Name". The second row contains "Email Id" and "Password". The third row contains "Contact No" and "Street". The fourth row contains "City" and "Pincode". At the bottom center of the form is a pink button labeled "Register User".

Register Here!!!	
First Name	Last Name
<input type="text"/>	<input type="text"/>
Email Id	Password
<input type="text"/>	<input type="text"/>
Contact No	Street
<input type="text"/>	<input type="text"/>
City	Pincode
<input type="text"/>	<input type="text"/>
<input type="button" value="Register User"/>	

Add Food

Food Title

Food Description

Category

Select Category

Food Price

Select 1st Image

Choose File No file chosen

Select 2nd Image


Choose File No file chosen

Select 3rd Image

Choose File No file chosen

Add Food

My Foods					
Food	Name	Description	Category	Price	Action
	Chicken Mc Nuggets	Spicy Chicken Mc Nuggets	Chicken	249	<a href="#">Update</a> <a href="#">Delete</a>
	Hyderabadi Chicken Biryani	Hyderabadi Chicken Biryani	Chicken	299	<a href="#">Update</a> <a href="#">Delete</a>
	Cheesy Tikka Pizza	Cheesy Tikka Pizza	Pizza	229	<a href="#">Update</a> <a href="#">Delete</a>
	King Size Burger	King Size Burger	Burger	349	<a href="#">Update</a> <a href="#">Delete</a>



Update Food Details

Food Title

King Size Burger

Food Description

King Size Burger

Category

Select Category

Food Price

349

Update Food

Update Food Image

Select 1st Image

Choose File No file chosen

Select 2nd Image

Choose File No file chosen

Select 3rd Image

Choose File No file chosen

Update Image

Restaurant Orders

Enter Order Id...

Search

Order Id	Food	Food Name	Category	Restaurant	Price	Quantity	Customer	Order Time	Order Status	Delivery Person	Delivery Contact	Delivery Time	Action
UEJRJ0A/GWQNXGHI		Chicken Mc Nuggets	Chicken	Restaurant2	249	1	Customer1	10/12/2023, 12:05:35 AM	Pending	deliveryperson2	1248965321	Processing	Delivery Assigned
UEJRJ0A/GWQNXGHI		King Size Burger	Burger	Restaurant2	349	1	Customer1	10/12/2023, 12:05:35 AM	Pending	deliveryperson2	1248965321	Processing	Delivery Assigned
JBP10MFQVJCSVOGA		Cheesy Tikka Pizza	Pizza	Restaurant2	229	2	customer5	10/12/2023, 12:57:41 AM	Pending	Pending	Pending	Processing	Assign Delivery
JBP10MFQVJCSVOGA		Chicken Mc Nuggets	Chicken	Restaurant2	249	1	customer5	10/12/2023, 12:57:41 AM	Pending	Pending	Pending	Processing	Assign Delivery

All Delivery Persons					
First Name	Last Name	Email Id	Phone No	Address	Action
deliveryperson2	deliveryperson2	deliveryperson2@gmail.com	1248965321	demo street, city, 741095	<a href="#">Delete</a>
deliveryperson3	deliveryperson3	deliveryperson3@gmail.com	4567899635	demo street, my city, 465787	<a href="#">Delete</a>

**Assign To Delivery Person** ✕

**Order Id**

**Delivery Person**

**Assign**

**Close**

## Milestone 2: Weeks 4-6

### Module 3: Customer Management Interface

- Customers can register themselves using a provided form.
- Customers can search for food by name for ordering.
- Customers can search foods by category.
- Customers can add foods to their cart and view it.
- Customers can view their order history.
- Integrate AI tools with Django to suggest the best food among multiple restaurants.
- Write test cases using Django's testing framework for all the services with code coverage.
- Implement respective module frontend using Django templates and write test cases for frontend logic.
- Form validations must be implemented for all the services.
- Output Screenshot:

**Register Here!!!**


**First Name** **Last Name**

**Email Id** **Password**

**Contact No** **Street**


**City** **Pincode**

**Register User**




Category: **Chicken**  
**Royal Chicken Biryani**  
Tasty Royal Chicken Biryani

Price : ₹199




Category: **Pizza**  
**Veggie Pizza**  
Yummy Veggie Pizza

Price : ₹249



Category: **Burger**  
**Perfect Big Burger**  
Perfect Big Burger with multi-layer cheese

Price : ₹299



Category: **Chicken**  
**Spicy Chicken McNuggets**  
Spicy Chicken McNuggets with sauce

Price : ₹399



### Perfect Big Burger

Description :  
Perfect Big Burger with multi-layer cheese

Restaurant Details:  
**Name:** Restaurant1 **Contact:** restaurant1@gmail.com

Price : ₹299

#### Food Reviews (Rating: 5) ★

customer5 5 / 5 ★  
very tasty burger

customer5 5 / 5 ★  
tasty burger, loved it.

### My Cart

Food	Food Name	Category	Restaurant	Price	Quantity	Action
	Perfect Big Burger	Burger	Restaurant1	299	<input type="button" value="-"/> 3 <input type="button" value="+"/>	<input type="button" value="Delete"/>
	Chessy Tikka Pizza	Pizza	Restaurant2	229	<input type="button" value="-"/> 1 <input type="button" value="+"/>	<input type="button" value="Delete"/>
	Chicken Mc Nuggets	Chicken	Restaurant2	249	<input type="button" value="-"/> 1 <input type="button" value="+"/>	<input type="button" value="Delete"/>

Total Price: ₹ 1375/-

### My Orders

Order Id	Food	Food Name	Category	Restaurant	Price	Quantity	Order Time	Order Status	Delivery Person	Delivery Contact	Delivery Time
LOQPEKXIFLHGJCKG		Tasty Chicken Biryani	Chicken	Restaurant1	150	1	10/2/2023, 5:40:59 PM	Delivered	Restaurant1Delivery	4567897232	2023-10-02 Evening
QSRHIZOBSOSIPRIG		Perfect Big Burger	Burger	Restaurant1	299	1	10/12/2023, 12:05:35 AM	Pending	Pending	Pending	Pending
UEIRJ0AJGWQNXGHI		Chicken Mc Nuggets	Chicken	Restaurant2	249	1	10/12/2023, 12:05:35 AM	Pending	deliveryperson2	1248965321	Pending
UEIRJ0AJGWQNXGHI		King Size Burger	Burger	Restaurant2	349	1	10/12/2023, 12:05:35 AM	Pending	deliveryperson2	1248965321	Pending

### Milestone 3: Weeks 7-8

#### Module 4: DELIVERY PERSON Management, Feedback about Orders and Delivery

- The delivery person can view delivery orders assigned to them.
- Delivery persons can view all delivery orders assigned by the restaurant.
- The Delivery Person can update the delivery status of orders.
- Implement a service for live tracking of orders using APIs like Google Maps.
- Implement a service that triggers a feedback form to customers upon delivery completion to gather delivery partner and food item feedback.
- Develop a code for delayed orders using AI and provide the status of the order.
- Write test cases using Django's testing framework for all the services with code coverage.
- Implement respective module frontend using Django templates and write test cases for frontend logic.
- Form validations must be implemented for all the services.
- Output screenshot:

My Delivery Orders												
Enter Order Id..		Search										
Order Id	Food	Food Name	Category	Restaurant	Price	Quantity	Customer	Order Time	Order Status	Delivery Person	Delivery Contact	Delivery Time
UEJRJ0AIGWQNXGHI		Chicken Mc Nuggets	Chicken	Restaurant2	269	1	Customer1	10/12/2023, 12:05:35 AM	On the Way	deliveryperson2	1248965321	2023-10-12 Morning
UEJRJ0AIGWQNXGHI		King Size Burger	Burger	Restaurant2	349	1	Customer1	10/12/2023, 12:05:35 AM	On the Way	deliveryperson2	1248965321	2023-10-12 Morning
J8P10MFQYJCSVOOA		Cheesy Tikka Pizza	Pizza	Restaurant2	229	2	customer5	10/12/2023, 12:57:41 AM	Pending	deliveryperson2	1248965321	Processing
J8P10MFQYJCSVOOA		Chicken Mc Nuggets	Chicken	Restaurant2	269	1	customer5	10/12/2023, 12:57:41 AM	Pending	deliveryperson2	1248965321	Processing

### Update Delivery Status

✕

Order Id

J8P10MFQYJCSVOOA

Delivery Date

dd-mm-yyyy

Delivery Time

Select Delivery Time

Delivery Status

Select Delivery Status

Update Status

Close

## **Milestone 4: Weeks 9-10**

### **Module 5: Feedback Management**

- Customers can submit feedback on food items and delivery service.
- Admin can review feedback and take necessary actions.
- Implement a reporting system to analyze feedback data for improvements.
- Write test cases using Django's testing framework for all services with code coverage.

### **Evaluation Criteria:**

#### **Milestone 1 Evaluation (Week 3):**

- Completion of user authentication and registration.
- Successful implementation of restaurant management functionalities.

#### **Milestone 2 Evaluation (Week 6):**

- Customer Management Interface.

#### **Milestone 3 Evaluation (Week 8):**

- Customers can add foods to their cart.
- Customers can view their cart.
- Customers can view their orders.

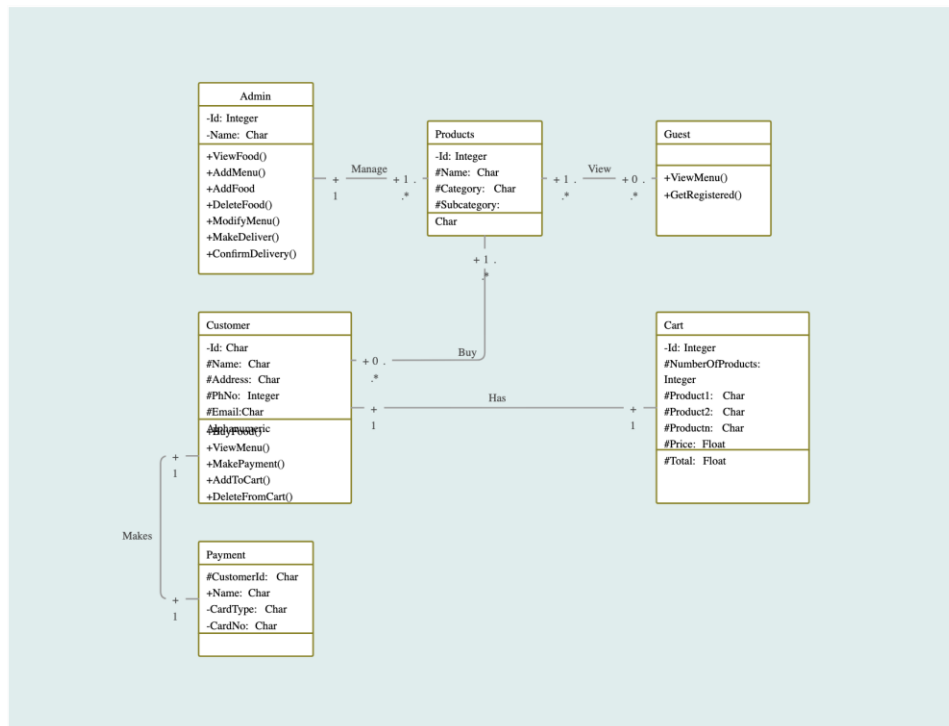
#### **Milestone 4 Evaluation (Week 10):**

- Delivery Person Management.
- Feedback Management.



## 5. Design diagrams

### Class Diagram: Entity classes



### Class Diagram: Service Interface

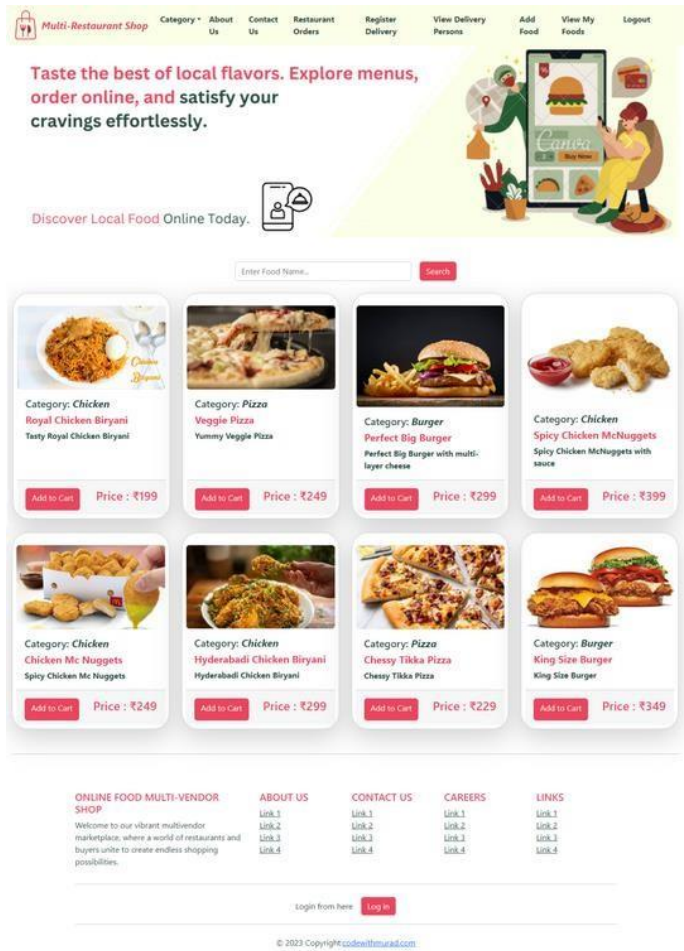
1. AdminService CRUD operation methods
2. RestaurantService CRUD operation methods
3. CustomerService CRUD operation methods
4. DeliveryService CRUD operation methods

### Class Diagram: Repository

1. AdminRepository interface
2. RestaurantRepository interface
3. CustomerRepository interface
4. DeliveryRepository interface

## Output Screenshots:

### 1. Dashboard



### 2. Admin Dashboard

All Foods					
Food	Name	Description	Category	Price	Restaurant
	Royal Chicken Biryani	Tasty Royal Chicken Biryani	Chicken	199	Restaurant1
	Veggie Pizza	Yummy Veggie Pizza	Pizza	249	Restaurant1
	Perfect Big Burger	Perfect Big Burger with multi-layer cheese	Burger	299	Restaurant1
	Spicy Chicken McNuggets	Spicy Chicken McNuggets with sauce	Chicken	399	Restaurant1
	Chicken Mc Nuggets	Spicy Chicken Mc Nuggets	Chicken	249	Restaurant2
	Hyderabadi Chicken Biryani	Hyderabadi Chicken Biryani	Chicken	299	Restaurant2