1. INTRODUCTION TO PROJECT

InstaFood is a full-stack, role-based food delivery platform designed to streamline online food ordering, restaurant management, and delivery operations within a single unified system. The application supports multiple user roles—**Customer, Restaurant, Delivery Partner, and Admin**—each with clearly defined permissions and tailored user experiences.

The **frontend**, developed using **React**, implements role-based protected routes and conditional rendering to ensure secure and intuitive navigation for different users. Seamless communication with the backend is achieved through **Axios**, enabling token-based authentication and smooth UI-API integration.

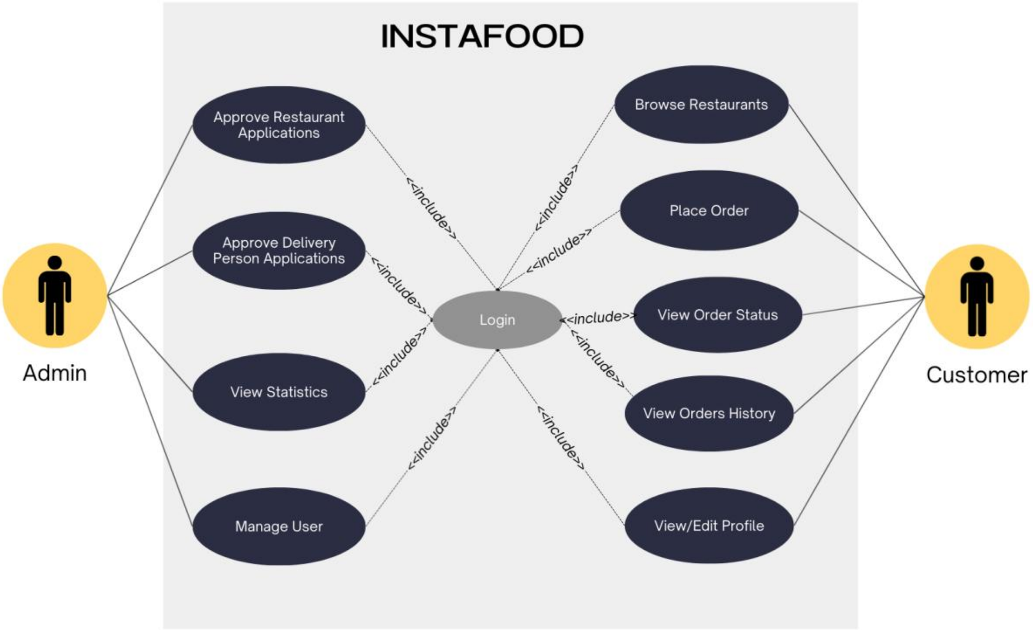
The **backend** is built with **Spring Boot**, exposing RESTful APIs using a layered architecture that strictly follows **SOLID principles**. **JWT-based authentication and authorization** are implemented to enforce secure, role-specific access across the platform.

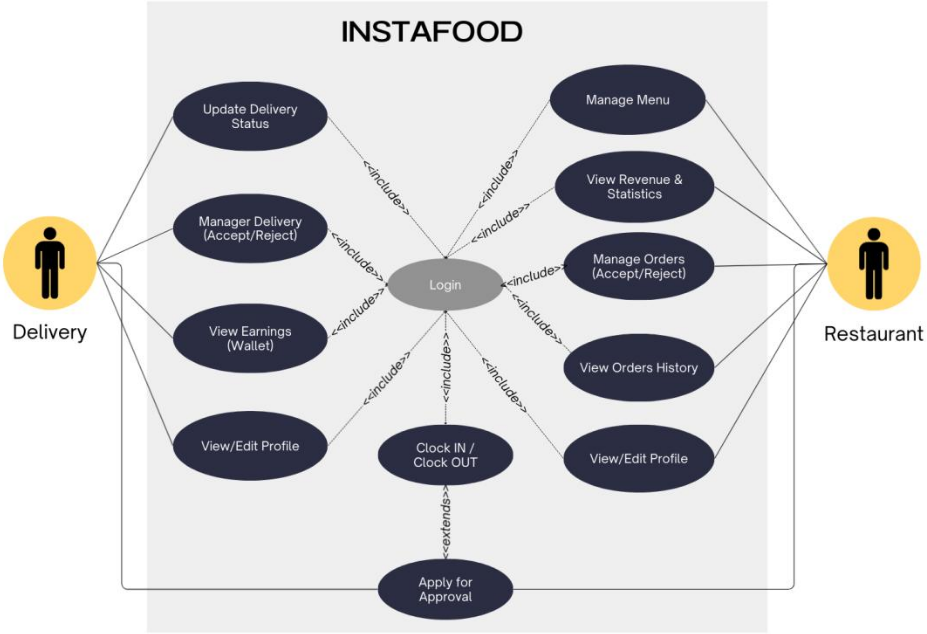
A **MySQL relational database** is designed to handle multi-restaurant onboarding, order management, delivery workflows, and administrative controls while maintaining data integrity and optimized performance.

For **deployment**, the application is containerized using **Docker** and deployed on an **AWS EC2 instance**, ensuring scalability, portability, and environment-independent execution. **Git** is used for source code management, following standard version control practices throughout the development lifecycle.

1. REQUIREMENTS

2.1 FUNCTIONAL REQUIREMENTS





2.1.1 LOGIN – ROLE-BASED ACCESS

The system shall provide a secure login mechanism using role-based authentication. Based on the authenticated user role (Customer, Restaurant, Delivery Partner, or Admin), the system shall grant access to authorized functionalities only.

2.1.2 REGISTRATION OF USER

The system shall allow new users to register by providing valid details. During registration, users can choose their role, and the system shall store the information securely in the database.

2.1.3 CUSTOMER FUNCTIONALITY

The system shall allow customers to:

- ✓ Register and log in securely
- ✓ Browse restaurants and view available menus
- ✓ Place food orders and track order status
- ✓ View order history and manage profile details

2.1.4 RESTAURANT FUNCTIONALITY

The system shall allow restaurants to:

- ✓ Register and manage restaurant profiles
- ✓ Add, update, and manage menu items
- ✓ Accept or reject customer orders
- ✓ Update order preparation status

2.1.5 DELIVERY PARTNER FUNCTIONALITY

The system shall allow delivery partners to:

- ✓ Register and log in securely
- ✓ View assigned delivery orders
- ✓ Update delivery status (picked up, delivered)
- ✓ Manage personal and availability details

2.1.6 ADMIN FUNCTIONALITY

The system shall allow administrators to:

- ✓ Manage users across all roles
- ✓ Approve or block restaurants and delivery partners
- ✓ Monitor system activities and orders
- ✓ Maintain overall platform integrity

2.2 NON-FUNCTIONAL REQUIREMENTS

2.2.1 INTERFACE

The system shall provide a user-friendly and responsive interface for all user roles.

Refer to Appendix B for detailed user interface designs.

2.2.2 PERFORMANCE

- ✓ The system shall respond efficiently during critical operations such as placing an order.
- ✓ API responses shall be optimized to ensure minimal latency under normal load conditions.

2.2.3 CONSTRAINTS

- ✓ The application shall be developed using specified technologies only.
- ✓ The system shall require an active internet connection to function.
- ✓ Deployment shall be performed on a cloud-based environment.

2.2.4 OTHER REQUIREMENTS

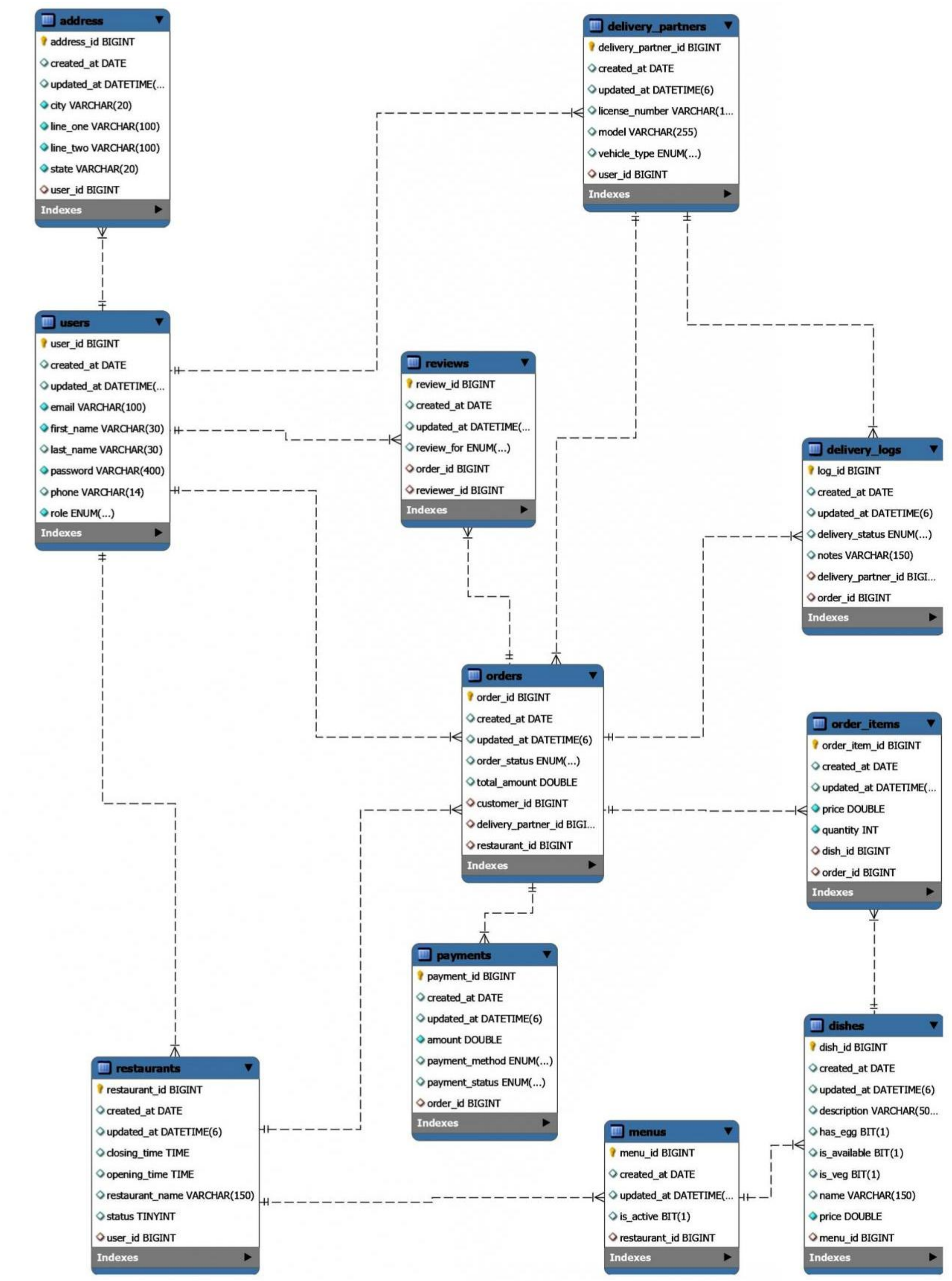
Software Requirements

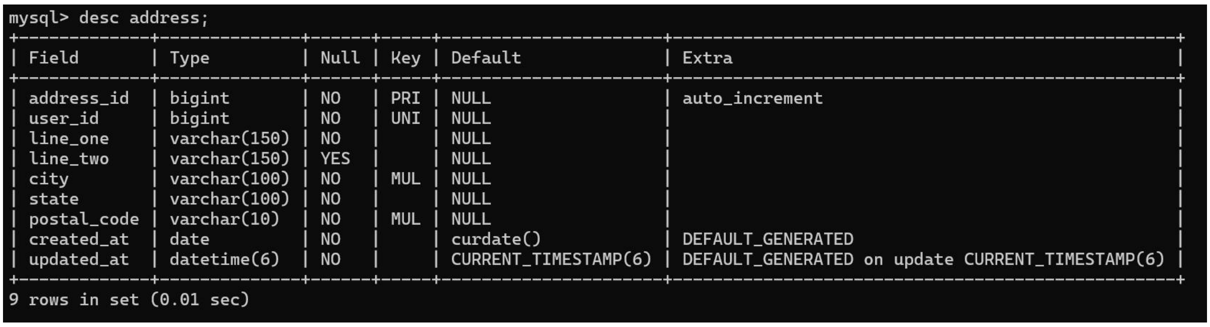
- ✓ Spring Boot
- ✓ MySQL
- ✓ Spring Security (JWT)
- ✓ React

2. DESIGN

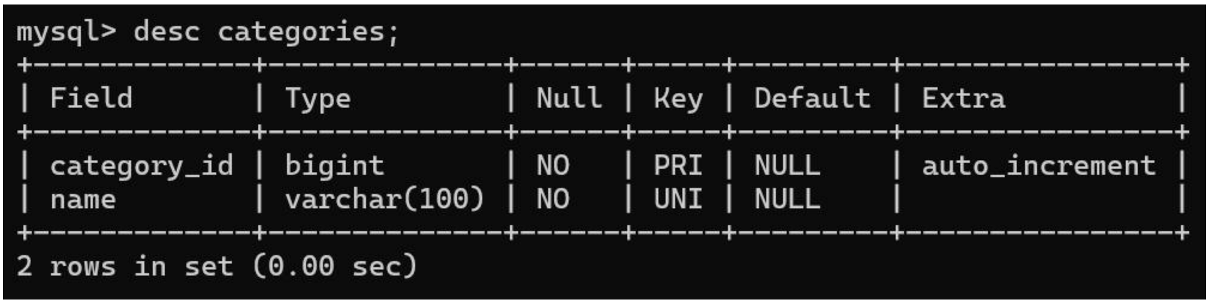
3.1 DATABASE DESIGN

The following table structures depict the database design.

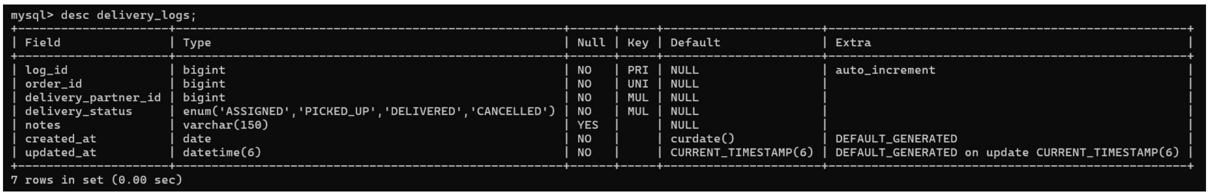




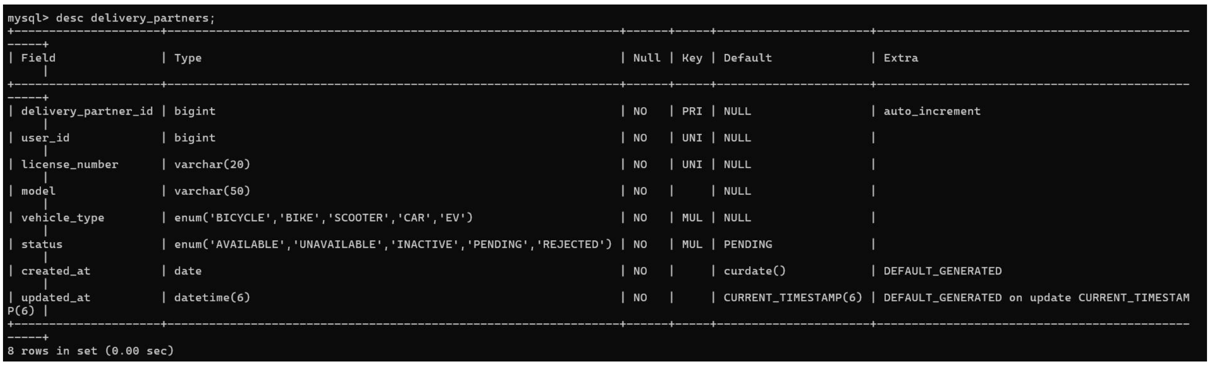
```
mysql> desc address;
+-------------+--------------+------+-----+----------------------+--------------------------------------------------+
| Field       | Type         | Null | Key | Default              | Extra                                            |
+-------------+--------------+------+-----+----------------------+--------------------------------------------------+
| address_id  | bigint       | NO   | PRI | NULL                 | auto_increment                                   |
| user_id     | bigint       | NO   | UNI | NULL                 |                                                  |
| line_one    | varchar(150) | NO   |     | NULL                 |                                                  |
| line_two    | varchar(150) | YES  |     | NULL                 |                                                  |
| city        | varchar(100) | NO   | MUL | NULL                 |                                                  |
| state       | varchar(100) | NO   |     | NULL                 |                                                  |
| postal_code | varchar(10)  | NO   | MUL | NULL                 |                                                  |
| created_at  | date         | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at  | datetime(6)  | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+-------------+--------------+------+-----+----------------------+--------------------------------------------------+
9 rows in set (0.01 sec)
```



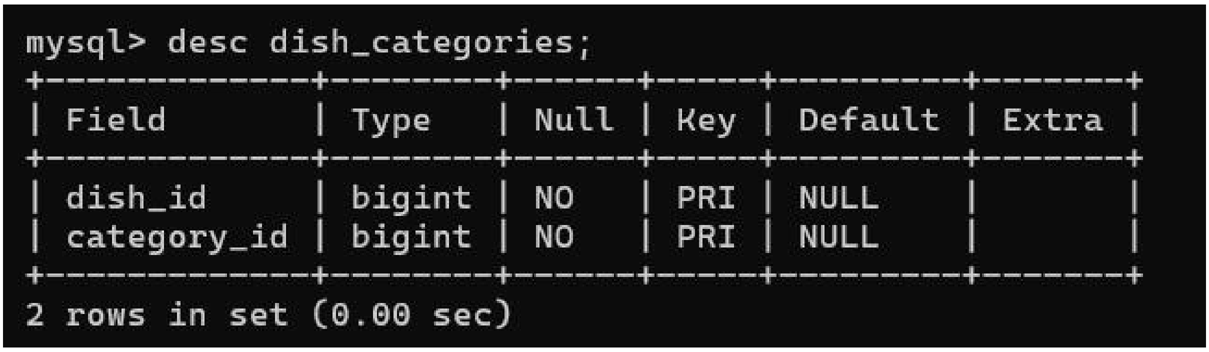
```
mysql> desc categories;
+-------------+--------------+------+-----+---------+----------------+
| Field       | Type         | Null | Key | Default | Extra          |
+-------------+--------------+------+-----+---------+----------------+
| category_id | bigint       | NO   | PRI | NULL    | auto_increment |
| name        | varchar(100) | NO   | UNI | NULL    |                |
+-------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)
```



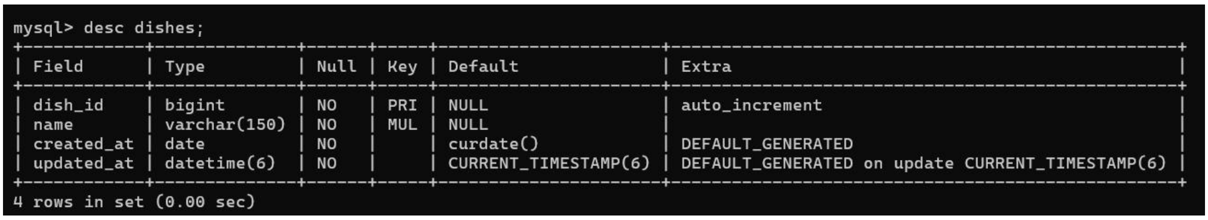
```
mysql> desc delivery_logs;
+---------------------+------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
| Field               | Type                                                 | Null | Key | Default              | Extra                                            |
+---------------------+------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
| log_id              | bigint                                               | NO   | PRI | NULL                 | auto_increment                                   |
| order_id            | bigint                                               | NO   | UNI | NULL                 |                                                  |
| delivery_partner_id | bigint                                               | NO   | MUL | NULL                 |                                                  |
| delivery_status     | enum('ASSIGNED','PICKED_UP','DELIVERED','CANCELLED') | NO   | MUL | NULL                 |                                                  |
| notes               | varchar(150)                                         | YES  |     | NULL                 |                                                  |
| created_at          | date                                                 | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at          | datetime(6)                                          | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+---------------------+------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
7 rows in set (0.00 sec)
```



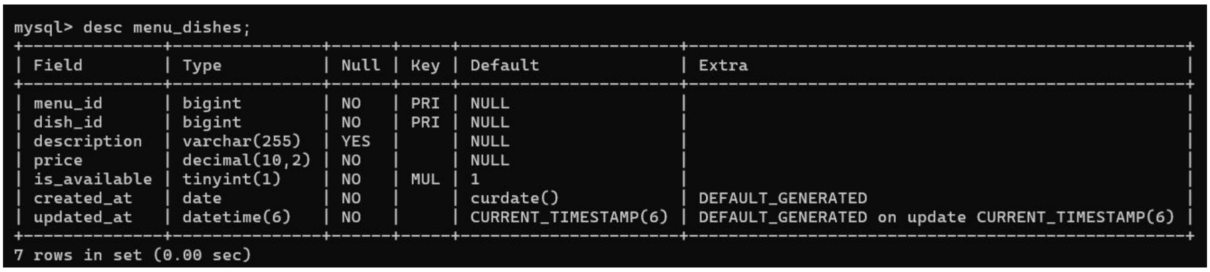
```
mysql> desc delivery_partners;
+---------------------+-----------------------------------------------------------------+------+-----+----------------------+---------------------------------------------
-----+
| Field               | Type                                                            | Null | Key | Default              | Extra
     |
+---------------------+-----------------------------------------------------------------+------+-----+----------------------+---------------------------------------------
-----+
| delivery_partner_id | bigint                                                          | NO   | PRI | NULL                 | auto_increment
     |
| user_id             | bigint                                                          | NO   | UNI | NULL                 |
     |
| license_number      | varchar(20)                                                     | NO   | UNI | NULL                 |
     |
| model               | varchar(50)                                                     | NO   |     | NULL                 |
     |
| vehicle_type        | enum('BICYCLE','BIKE','SCOOTER','CAR','EV')                     | NO   | MUL | NULL                 |
     |
| status              | enum('AVAILABLE','UNAVAILABLE','INACTIVE','PENDING','REJECTED') | NO   | MUL | PENDING              |
     |
| created_at          | date                                                            | NO   |     | curdate()            | DEFAULT_GENERATED
     |
| updated_at          | datetime(6)                                                     | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAM
P(6) |
+---------------------+-----------------------------------------------------------------+------+-----+----------------------+---------------------------------------------
-----+
8 rows in set (0.00 sec)
```



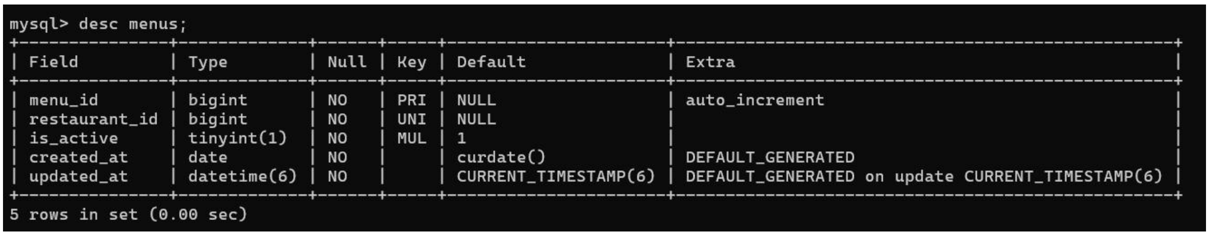
```
mysql> desc dish_categories;
+-------------+--------+------+-----+---------+-------+
| Field       | Type   | Null | Key | Default | Extra |
+-------------+--------+------+-----+---------+-------+
| dish_id     | bigint | NO   | PRI | NULL    |       |
| category_id | bigint | NO   | PRI | NULL    |       |
+-------------+--------+------+-----+---------+-------+
2 rows in set (0.00 sec)
```



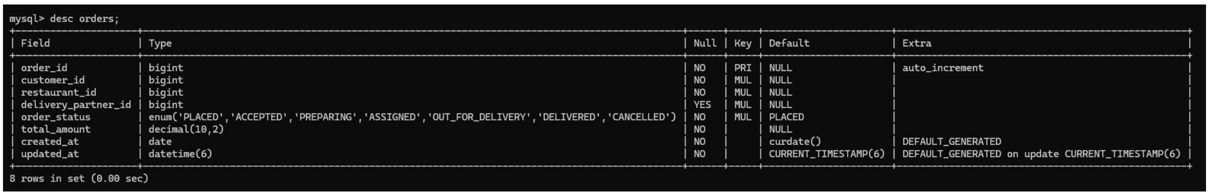
```
mysql> desc dishes;
+------------+--------------+------+-----+----------------------+--------------------------------------------------+
| Field      | Type         | Null | Key | Default              | Extra                                            |
+------------+--------------+------+-----+----------------------+--------------------------------------------------+
| dish_id    | bigint       | NO   | PRI | NULL                 | auto_increment                                   |
| name       | varchar(150) | NO   | MUL | NULL                 |                                                  |
| created_at | date         | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at | datetime(6)  | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+------------+--------------+------+-----+----------------------+--------------------------------------------------+
4 rows in set (0.00 sec)
```



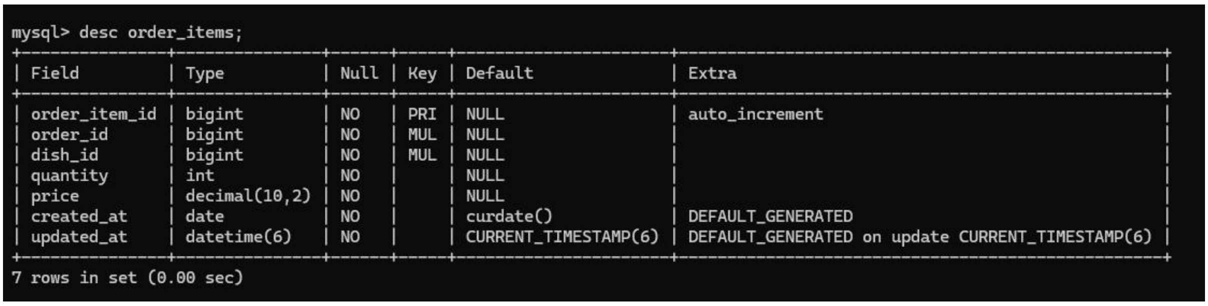
```
mysql> desc menu_dishes;
+--------------+---------------+------+-----+----------------------+--------------------------------------------------+
| Field        | Type          | Null | Key | Default              | Extra                                            |
+--------------+---------------+------+-----+----------------------+--------------------------------------------------+
| menu_id      | bigint        | NO   | PRI | NULL                 |                                                  |
| dish_id      | bigint        | NO   | PRI | NULL                 |                                                  |
| description  | varchar(255)  | YES  |     | NULL                 |                                                  |
| price        | decimal(10,2) | NO   |     | NULL                 |                                                  |
| is_available | tinyint(1)    | NO   | MUL | 1                    |                                                  |
| created_at   | date          | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at   | datetime(6)   | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+--------------+---------------+------+-----+----------------------+--------------------------------------------------+
7 rows in set (0.00 sec)
```



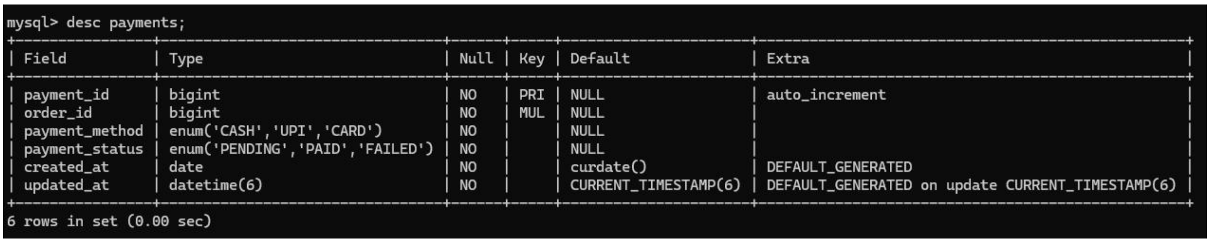
```
mysql> desc menus;
+---------------+-------------+------+-----+----------------------+--------------------------------------------------+
| Field         | Type        | Null | Key | Default              | Extra                                            |
+---------------+-------------+------+-----+----------------------+--------------------------------------------------+
| menu_id       | bigint      | NO   | PRI | NULL                 | auto_increment                                   |
| restaurant_id | bigint      | NO   | UNI | NULL                 |                                                  |
| is_active     | tinyint(1)  | NO   | MUL | 1                    |                                                  |
| created_at    | date        | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at    | datetime(6) | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+---------------+-------------+------+-----+----------------------+--------------------------------------------------+
5 rows in set (0.00 sec)
```



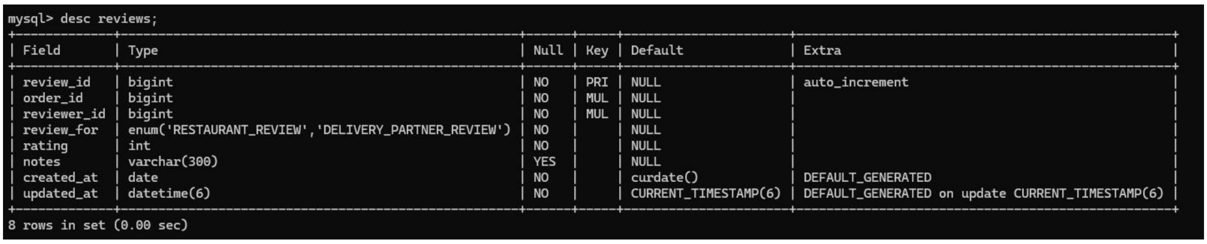
```
mysql> desc orders;
+---------------------+---------------------------------------------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
| Field               | Type                                                                                        | Null | Key | Default              | Extra                                            |
+---------------------+---------------------------------------------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
| order_id            | bigint                                                                                      | NO   | PRI | NULL                 | auto_increment                                   |
| customer_id         | bigint                                                                                      | NO   | MUL | NULL                 |                                                  |
| restaurant_id       | bigint                                                                                      | NO   | MUL | NULL                 |                                                  |
| delivery_partner_id | bigint                                                                                      | YES  | MUL | NULL                 |                                                  |
| order_status        | enum('PLACED','ACCEPTED','PREPARING','ASSIGNED','OUT_FOR_DELIVERY','DELIVERED','CANCELLED') | NO   | MUL | PLACED               |                                                  |
| total_amount        | decimal(10,2)                                                                               | NO   |     | NULL                 |                                                  |
| created_at          | date                                                                                        | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at          | datetime(6)                                                                                 | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+---------------------+---------------------------------------------------------------------------------------------+------+-----+----------------------+--------------------------------------------------+
8 rows in set (0.00 sec)
```



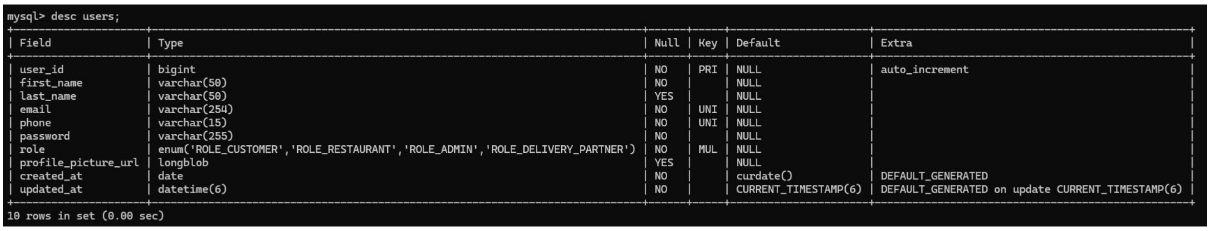
```
mysql> desc order_items;
+---------------+---------------+------+-----+----------------------+--------------------------------------------------+
| Field         | Type          | Null | Key | Default              | Extra                                            |
+---------------+---------------+------+-----+----------------------+--------------------------------------------------+
| order_item_id | bigint        | NO   | PRI | NULL                 | auto_increment                                   |
| order_id      | bigint        | NO   | MUL | NULL                 |                                                  |
| dish_id       | bigint        | NO   | MUL | NULL                 |                                                  |
| quantity      | int           | NO   |     | NULL                 |                                                  |
| price         | decimal(10,2) | NO   |     | NULL                 |                                                  |
| created_at    | date          | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at    | datetime(6)   | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+---------------+---------------+------+-----+----------------------+--------------------------------------------------+
7 rows in set (0.00 sec)
```



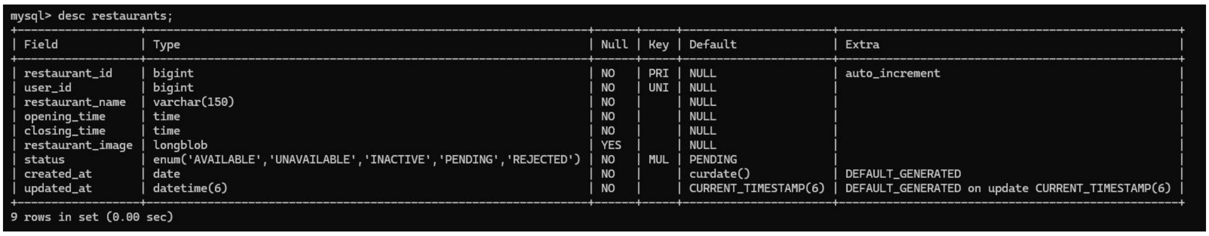
```
mysql> desc payments;
+----------------+---------------------------------+------+-----+----------------------+--------------------------------------------------+
| Field          | Type                            | Null | Key | Default              | Extra                                            |
+----------------+---------------------------------+------+-----+----------------------+--------------------------------------------------+
| payment_id     | bigint                          | NO   | PRI | NULL                 | auto_increment                                   |
| order_id       | bigint                          | NO   | MUL | NULL                 |                                                  |
| payment_method | enum('CASH','UPI','CARD')       | NO   |     | NULL                 |                                                  |
| payment_status | enum('PENDING','PAID','FAILED') | NO   |     | NULL                 |                                                  |
| created_at     | date                            | NO   |     | curdate()            | DEFAULT_GENERATED                                |
| updated_at     | datetime(6)                     | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+----------------+---------------------------------+------+-----+----------------------+--------------------------------------------------+
6 rows in set (0.00 sec)
```



```
mysql> desc reviews;
+-------------+-------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| Field       | Type                                            | Null | Key | Default              | Extra                                         |
+-------------+-------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| review_id   | bigint                                          | NO   | PRI | NULL                 | auto_increment                                |
| order_id    | bigint                                          | NO   | MUL | NULL                 |                                               |
| reviewer_id | bigint                                          | NO   | MUL | NULL                 |                                               |
| review_for  | enum('RESTAURANT_REVIEW','DELIVERY_PARTNER_REVIEW') | NO   |     | NULL                 |                                               |
| rating      | int                                             | NO   |     | NULL                 |                                               |
| notes       | varchar(300)                                    | YES  |     | NULL                 |                                               |
| created_at  | date                                            | NO   |     | curdate()            | DEFAULT_GENERATED                             |
| updated_at  | datetime(6)                                     | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+-------------+-------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
8 rows in set (0.00 sec)
```



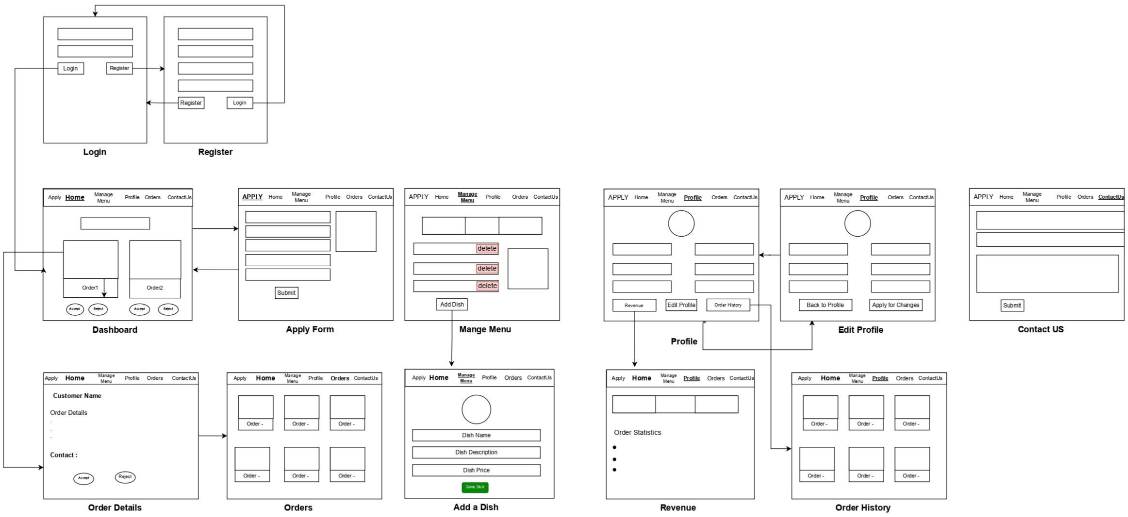
```
mysql> desc users;
+---------------------+------------------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| Field               | Type                                                                   | Null | Key | Default              | Extra                                         |
+---------------------+------------------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| user_id             | bigint                                                                 | NO   | PRI | NULL                 | auto_increment                                |
| first_name          | varchar(50)                                                            | NO   |     | NULL                 |                                               |
| last_name           | varchar(50)                                                            | YES  |     | NULL                 |                                               |
| email               | varchar(254)                                                           | NO   | UNI | NULL                 |                                               |
| phone               | varchar(15)                                                            | NO   | UNI | NULL                 |                                               |
| password            | varchar(255)                                                           | NO   |     | NULL                 |                                               |
| role                | enum('ROLE_CUSTOMER','ROLE_RESTAURANT','ROLE_ADMIN','ROLE_DELIVERY_PARTNER') | NO   | MUL | NULL                 |                                               |
| profile_picture_url | longblob                                                               | YES  |     | NULL                 |                                               |
| created_at          | date                                                                   | NO   |     | curdate()            | DEFAULT_GENERATED                             |
| updated_at          | datetime(6)                                                            | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+---------------------+------------------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
10 rows in set (0.00 sec)
```



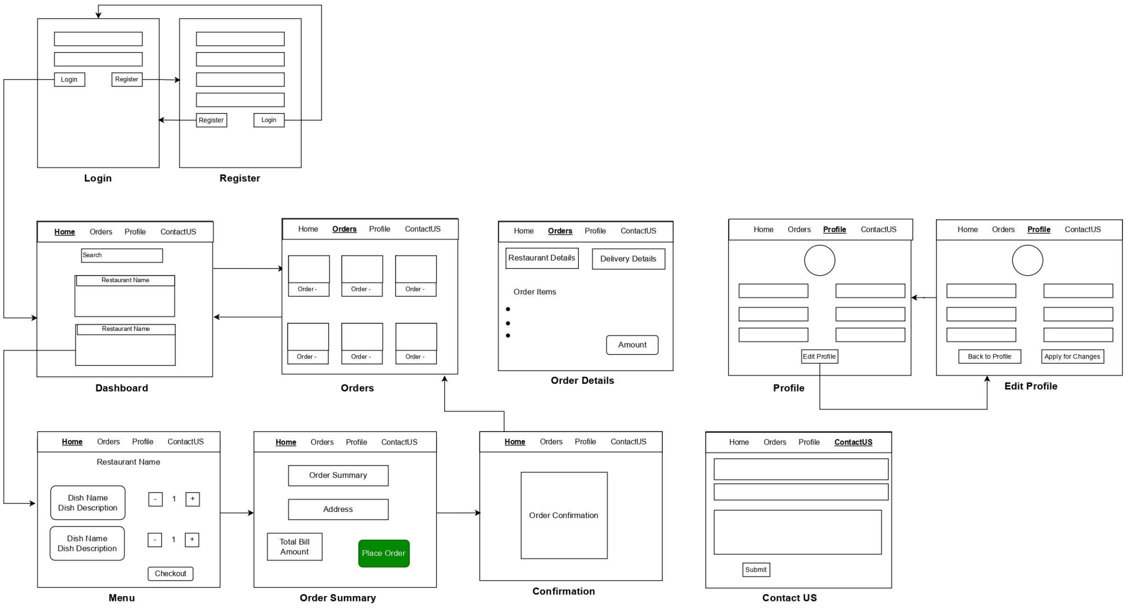
```
mysql> desc restaurants;
+------------------+-------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| Field            | Type                                                        | Null | Key | Default              | Extra                                         |
+------------------+-------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
| restaurant_id    | bigint                                                      | NO   | PRI | NULL                 | auto_increment                                |
| user_id          | bigint                                                      | NO   | UNI | NULL                 |                                               |
| restaurant_name  | varchar(150)                                                | NO   |     | NULL                 |                                               |
| opening_time     | time                                                        | NO   |     | NULL                 |                                               |
| closing_time     | time                                                        | NO   |     | NULL                 |                                               |
| restaurant_image | longblob                                                    | YES  |     | NULL                 |                                               |
| status           | enum('AVAILABLE','UNAVAILABLE','INACTIVE','PENDING','REJECTED') | NO   | MUL | PENDING              |                                               |
| created_at       | date                                                        | NO   |     | curdate()            | DEFAULT_GENERATED                             |
| updated_at       | datetime(6)                                                 | NO   |     | CURRENT_TIMESTAMP(6) | DEFAULT_GENERATED on update CURRENT_TIMESTAMP(6) |
+------------------+-------------------------------------------------------------+------+-----+----------------------+-----------------------------------------------+
9 rows in set (0.00 sec)
```

3.2 E-R DIAGRAM, DATAFLOW DIAGRAM AND CLASS DIAGRAM:

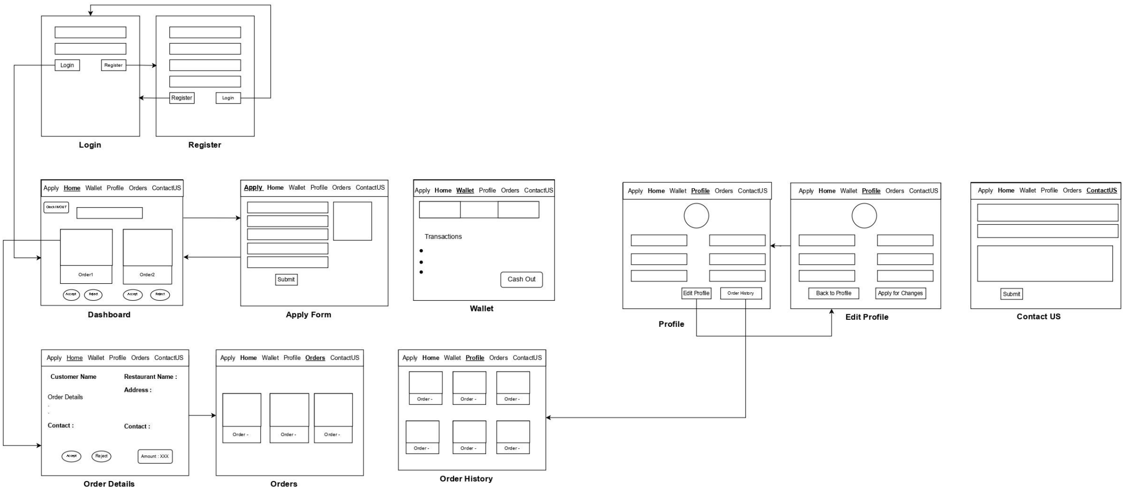
<u>Restaurant</u>



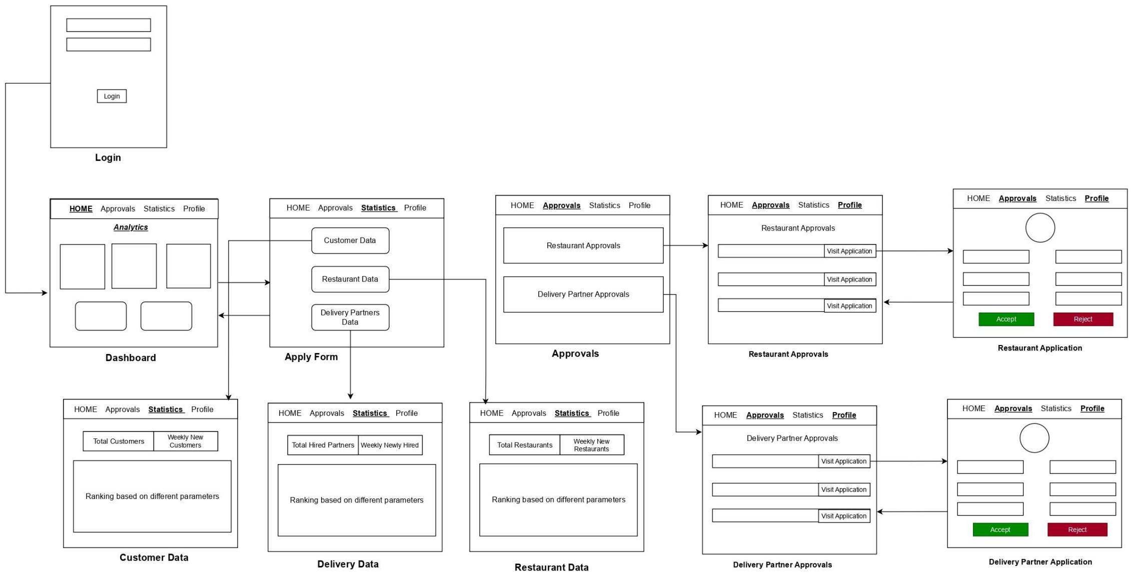
Customer



Delivery



Admin


Login
Login
HOME Approvals Statistics Profile
Analytics
Dashboard
HOME Approvals Statistics Profile
Customer Data
Restaurant Data
Delivery Partners Data
Apply Form
HOME Approvals Statistics Profile
Restaurant Approvals
Delivery Partner Approvals
Approvals
HOME Approvals Statistics Profile
Restaurant Approvals
Visit Application
Visit Application
Visit Application
Restaurant Approvals
HOME Approvals Statistics Profile
Accept
Reject
Restaurant Application
HOME Approvals Statistics Profile
Total Customers
Weekly New Customers
Ranking based on different parameters
Customer Data
HOME Approvals Statistics Profile
Total Hired Partners
Weekly Newly Hired
Ranking based on different parameters
Delivery Data
HOME Approvals Statistics Profile
Total Restaurants
Weekly New Restaurants
Ranking based on different parameters
Restaurant Data
HOME Approvals Statistics Profile
Delivery Partner Approvals
Visit Application
Visit Application
Visit Application
Delivery Partner Approvals
HOME Approvals Statistics Profile
Accept
Reject
Delivery Partner Application

4. CODING STANDARDS IMPLEMENTED

4.1 NAMING AND CAPITALIZATION

To maintain code readability, consistency, and scalability across the InstaFood application, standard naming and capitalization conventions have been strictly followed. The project primarily uses **Pascal Case** and **Camel Case** based on the type of identifier.

Identifier Type	Naming Convention	Examples	Additional Notes
Class	Pascal Case	User, Restaurant, OrderDetails, DeliveryPartner	Class names represent real-world entities and are nouns. Underscores (_) are not allowed. Type prefixes (e.g., CUser) are avoided.
Method	Camel Case	placeOrder(), updateRestaurantStatus(), getOrderDetails()	Method names use verbs or verb phrases to indicate actions.
Parameter	Camel Case	userId, restaurantName, orderStatus	Parameter names are descriptive and meaningful, allowing clarity based on name and type.
Interface	Pascal Case	IUserService,	Interfaces start with I. Underscores

Identifier Type	Naming Convention	Examples	Additional Notes
	with I prefix	IRestaurantRepository	are not used.
Property / Field	Pascal Case	OrderStatus, DeliveryTime, TotalAmount	Property names use nouns or noun phrases representing data attributes.
Private Member Variable	Underscore Camel Case	_orderId, _restaurantName, _deliveryCharge	Private variables are prefixed with an underscore to distinguish them from public members.
Exception Class	Pascal Case with Exception suffix	OrderNotFoundException, InvalidUserException	Custom exception names clearly indicate the error scenario.

4.2 BENEFITS OF FOLLOWING CODING STANDARDS

- ✓ Improves readability and maintainability
- ✓ Ensures uniformity across team members
- ✓ Reduces debugging and integration issues
- ✓ Makes the codebase, scalable and professional
- ✓ Helps new developers quickly understand the project structure

5. TEST REPORT

5.1 TESTING RESTAURANT

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
1	Get Restaurant ID	/restaurant/restaurantId	GET	userId	Returns restaurantId for given user	OK
2	Apply for Restaurant	/restaurant/apply	POST	RestaurantApplyDT	Restaurant application	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
				O	submitted	
3	Approve Restaurant	/restaurant/apply/approve	GET	restaurantId	Restaurant approved by admin	OK
4	Toggle Restaurant Availability	/restaurant/availability	PUT	restaurantId	Restaurant availability toggled	OK
5	Get Restaurant Statistics	/restaurant/statistics	GET	restaurantId	Returns restaurant statistics	OK
6	Get Menu ID	/restaurant/menu	GET	restaurantId	Returns menuId of restaurant	OK
7	Get All Menu Dishes	/restaurant/menu/dishes	GET	restaurantId	Returns all dishes	OK
8	Get Available Dishes	/restaurant/menu/Dishes	GET	id	Returns only available dishes	OK
9	Toggle Dish Availability	/restaurant/menu/dishes	PUT	menuId, dishId	Dish availability updated	OK
10	Delete Dish	/restaurant/menu/dishes	DELETE	menuId, dishId	Dish deleted successfully	OK
11	Get Dish Categories	/restaurant/menu/dishes/add/categories	GET	—	Returns all dish categories	OK
12	Add New Dish	/restaurant/menu/dishes/add	POST	menuId, dish data	Dish added successfully	OK
13	Get Dish Details	/restaurant/menu/dishes/edit	GET	menuId, dishId	Returns dish details	OK
14	Update Dish Details	/restaurant/menu/dishes/edit	PATCH	menuId, dishId, updated data	Dish updated successfully	OK
15	Get Restaurant Profile	/restaurant/profile/restaurantId	GET	restaurantId	Returns restaurant profile	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
16	Update Restaurant Profile	/restaurant/profile/restaurantId/{id}	PATCH	updated details	Profile updated successfully	OK
17	Get Placed Orders	/restaurant/orders/placed	GET	restaurantId	Returns placed orders	OK
18	Accept Order	/restaurant/orders/placed	PUT	orderId	Order accepted	OK
19	Get Preparing Orders	/restaurant/orders/preparing	GET	restaurantId	Returns preparing orders	OK
20	Prepare Order	/restaurant/orders/preparing	PUT	orderId	Order moved to preparing	OK
21	Get Assigned Orders	/restaurant/orders/assigned	GET	restaurantId	Returns assigned orders	OK
22	Get Delivered Orders	/restaurant/orders/delivered	GET	restaurantId	Returns delivered orders	OK
23	Get All Restaurants	/restaurant/list-restaurants	GET	—	Returns all restaurants	OK
24	Get Restaurants by Pincode	/restaurant/list-restaurants	GET	postalCode	Returns restaurants by pincode	OK

5.2 TESTING ADMIN

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
1	Get Admin Profile	/admin/profile	GET	—	Admin details fetched successfully	OK
2	Get Dashboard Summary	/admin/dashboard	GET	—	Total orders & dashboard data returned	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
3	Get Order Status Stats	/admin/dashboard/order-status	GET	—	Order status statistics displayed	OK
4	Get Orders Per Day Stats	/admin/dashboard/orders-per-day	GET	—	Orders per day data returned	OK
5	Get Top Selling Items	/admin/dashboard/top-items	GET	—	Top selling items displayed	OK
6	Get Pending Restaurant Applications	/admin/approvals/restaurants	GET	—	List of pending restaurant applications	OK
7	Get Restaurant Application Details	/admin/approvals/restaurants/{id}	GET	application Id	Restaurant application details returned	OK
8	Approve Restaurant Application	/admin/approvals/restaurants/{id}/approve	PUT	application Id	Restaurant approved successfully	OK
9	Reject Restaurant Application	/admin/approvals/restaurants/{id}/reject	PUT	application Id	Restaurant rejected successfully	OK
10	Get Pending Delivery Partner Applications	/admin/approvals/delivery-partners/applications	GET	—	Pending delivery partner applications list	OK
11	Get Delivery Partner Application Details	/admin/approvals/delivery-partners/applications/{id}	GET	application Id	Delivery partner application details	OK
12	Approve Delivery Partner	/admin/approvals/delivery-partners/{id}/approve	PUT	application Id	Delivery partner approved	OK
13	Reject Delivery Partner	/admin/approvals/delivery-partners/{id}/reject	PUT	application Id	Delivery partner rejected	OK
14	Get Customer Statistics	/admin/statistics/customers	GET	—	Customer statistics data returned	OK
15	Get Restaurant Statistics	/admin/statistics/restaurants	GET	—	Restaurant statistics returned	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
16	Get Delivery Partner Statistics	/admin/statistics/delivery-partners	GET	—	Delivery partner statistics returned	OK

5.3 TESTING CUSTOMER

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
1	Get Customer Profile	/customer/profile	GET	userId	Customer profile details fetched	OK
2	Get Customer Orders	/customer/orders	GET	userId	List of all orders of customer	OK
3	Place Order	/customer/place-order	POST	PlaceOrderDTO	Order placed successfully	OK

5.4 TESTING DELIVERY

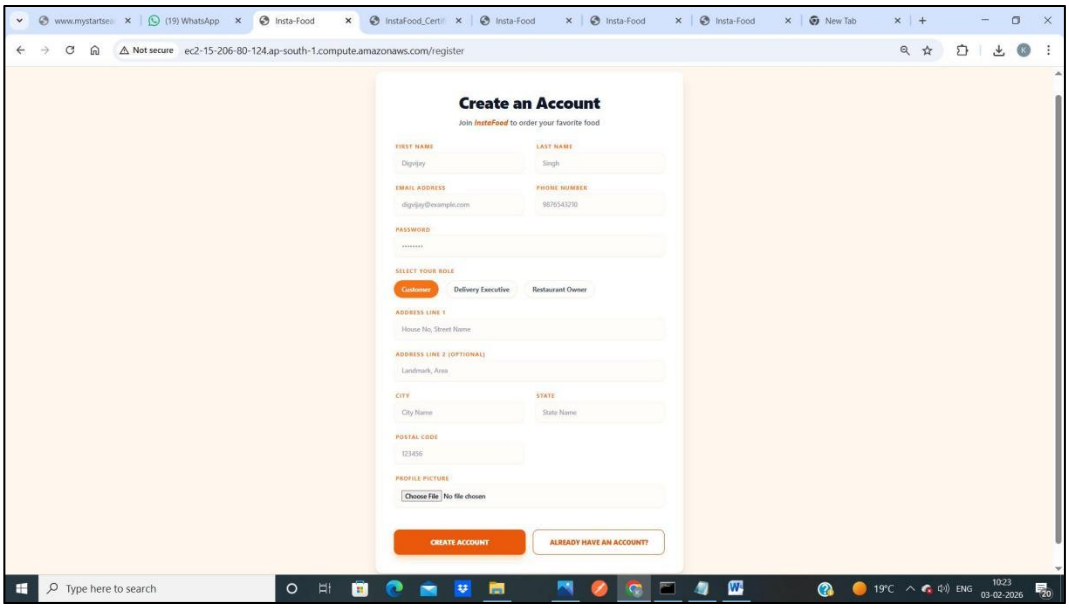
TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
1	Apply as Delivery Partner	/delivery/apply	PUT	userId, DeliveryPartnerApplyDto	Application submitted successfully	OK
2	Get Delivery Partner ID	/delivery/delivery-id	GET	userId	Delivery partner ID returned	OK
3	Wallet Summary	/delivery/wallet/summary	GET	deliveryPartnerId	Wallet summary displayed	OK
4	Wallet Transactions	/delivery/wallet/transactions	GET	deliveryPartnerId, size	Wallet transactions list returned	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
5	Wallet Earnings Trend	/delivery/wallet/earnings-trend	GET	range, deliveryPartnerId	Earnings trend data displayed	OK
6	Get Delivery Partner Profile	/delivery/details	GET	deliveryPartnerId	Delivery partner details fetched	OK
7	Edit Delivery Partner Profile	/delivery/edit-details	PUT	deliveryPartnerId, profile data	Profile updated successfully	OK
8	Get Orders by Status (Today)	/delivery/orders	GET	deliveryPartnerId, status	Orders list returned	OK
9	Get Order Details	/delivery/orders/order-details	GET	orderId	Order details fetched	OK
10	Get Order History	/delivery/orders/history	GET	deliveryPartnerId	Order history returned	OK
11	Delivery Dashboard Summary	/delivery/dashboard/summary	GET	deliveryPartnerId	Dashboard summary displayed	OK
12	Get Delivery Partner Status	/delivery/status	GET	deliveryPartnerId	Current status returned	OK
13	Update Delivery Partner Status	/delivery/status	PATCH	deliveryPartnerId	Status toggled successfully	OK
14	Get Available Orders	/delivery/orders/available	GET	deliveryPartnerId	Available delivery requests returned	OK
15	Get Orders by Partner & Status	/delivery/orders/{deliveryPartnerId}	GET	deliveryPartnerId, status	Orders filtered by status returned	OK
16	Accept Delivery Order	/delivery/orders/accept	PATCH	orderId, deliveryPartnerId	Order accepted successfully	OK
17	Mark Order	/delivery/orders/delivered/{deliver	PATC	deliveryPartnerId,	Order marked	OK

TC No	API Name	Endpoint	HTTP Method	Input	Expected Result	Actual Result
	Delivered	yPartnerId}/{orderId}	H	orderId	as delivered	

6. Appendix B (Screen Shots to be added)

6.1LOGIN/REGISTER


Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/register

Create an Account

Join *InstaFood* to order your favorite food

FIRST NAME Digvijay

LAST NAME Singh

EMAIL ADDRESS digvijay@example.com

PHONE NUMBER 9876543210

PASSWORD ••••••••

SELECT YOUR ROLE Customer / Delivery Executive / Restaurant Owner

ADDRESS LINE 1 House No, Street Name

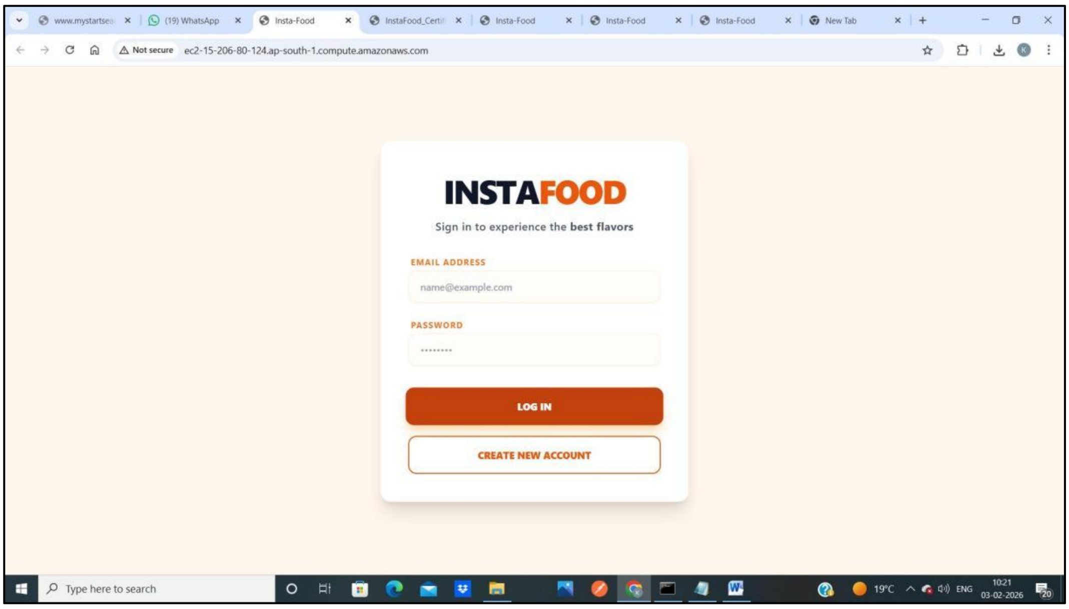
ADDRESS LINE 2 (OPTIONAL) Landmark, Area

CITY City Name

STATE State Name

POSTAL CODE 123456

PROFILE PICTURE Choose File No file chosen


Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com

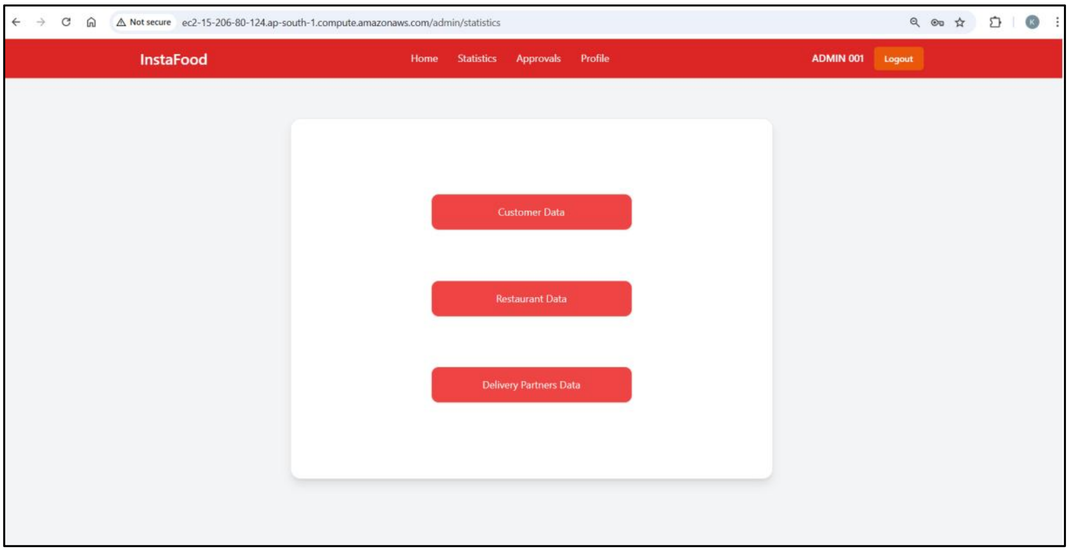
INSTAFOOD

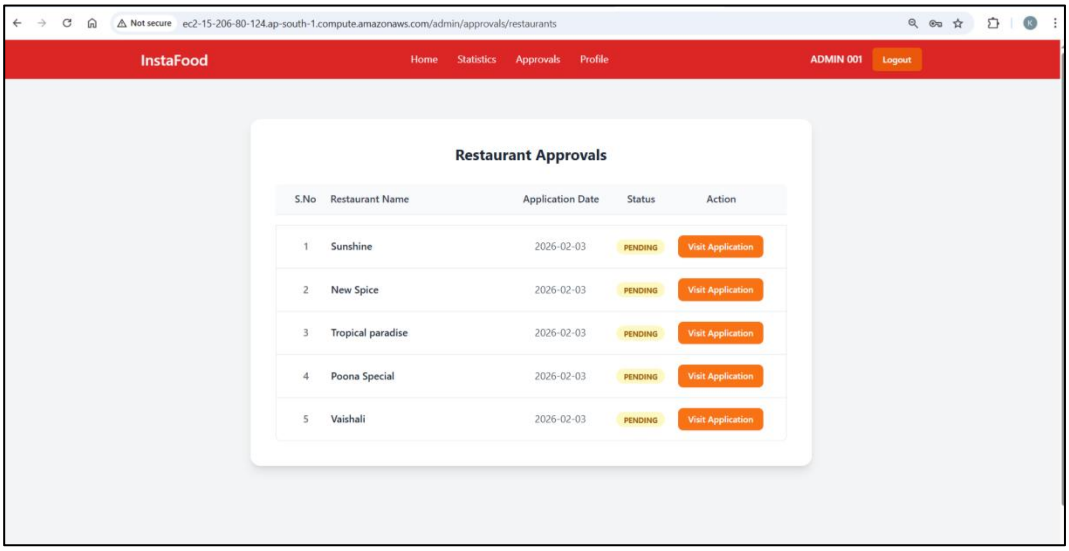
Sign in to experience the best flavors

EMAIL ADDRESS name@example.com

PASSWORD ••••••••

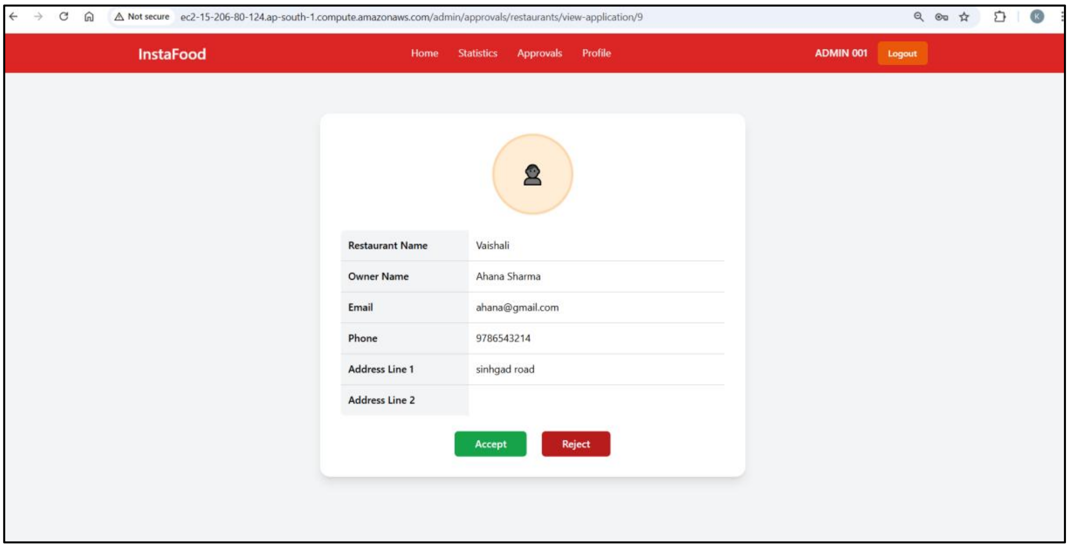
6.2 ADMIN



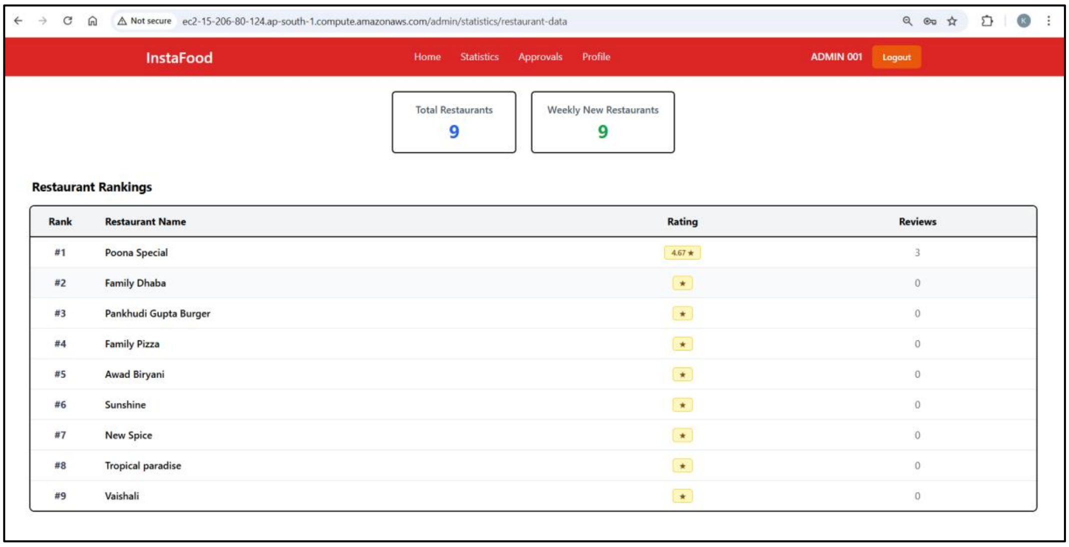

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/approvals/restaurants
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Restaurant Approvals

S.No	Restaurant Name	Application Date	Status	Action
1	Sunshine	2026-02-03	PENDING	Visit Application
2	New Spice	2026-02-03	PENDING	Visit Application
3	Tropical paradise	2026-02-03	PENDING	Visit Application
4	Poona Special	2026-02-03	PENDING	Visit Application
5	Vaishali	2026-02-03	PENDING	Visit Application


Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/approvals/restaurants/view-application/9
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Restaurant Name	Vaishali
Owner Name	Ahana Sharma
Email	ahana@gmail.com
Phone	9786543214
Address Line 1	sinhgad road
Address Line 2	

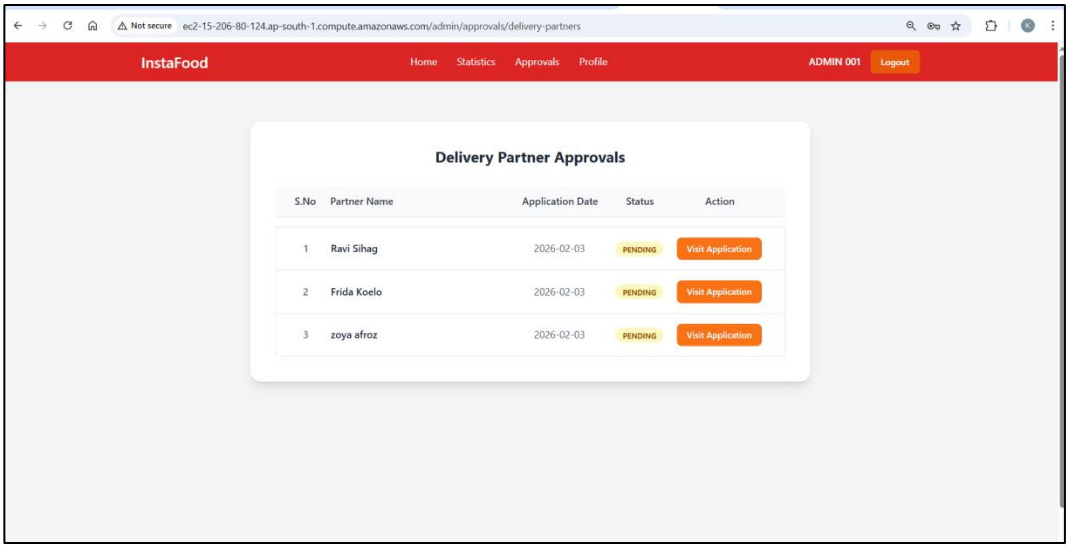

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/statistics/restaurant-data
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Total Restaurants 9

Weekly New Restaurants 9

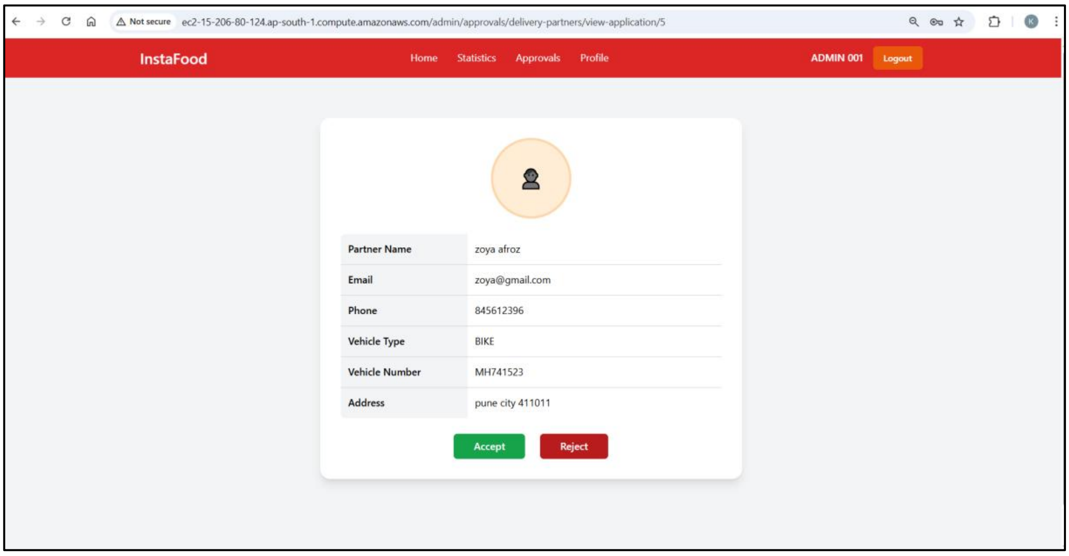
Restaurant Rankings

Rank	Restaurant Name	Rating	Reviews
#1	Poona Special	4.67 ★	3
#2	Family Dhaba	★	0
#3	Pankhudi Gupta Burger	★	0
#4	Family Pizza	★	0
#5	Awad Biryani	★	0
#6	Sunshine	★	0
#7	New Spice	★	0
#8	Tropical paradise	★	0
#9	Vaishali	★	0

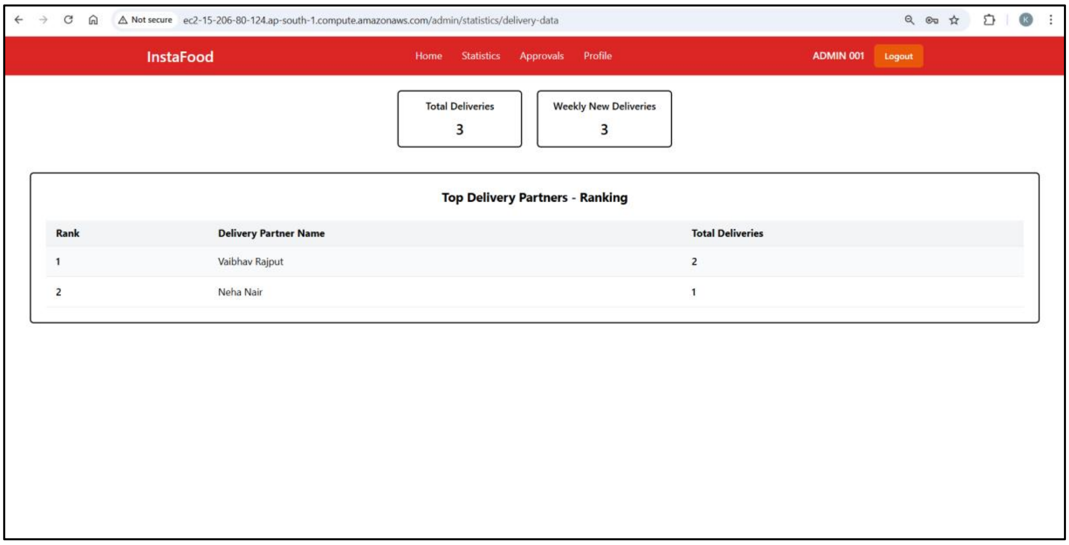

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/approvals/delivery-partners
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Delivery Partner Approvals

S.No	Partner Name	Application Date	Status	Action
1	Ravi Sihag	2026-02-03	PENDING	Visit Application
2	Frida Koelo	2026-02-03	PENDING	Visit Application
3	zoya afroz	2026-02-03	PENDING	Visit Application


Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/approvals/delivery-partners/view-application/5
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Partner Name	zoya afroz
Email	zoya@gmail.com
Phone	845612396
Vehicle Type	BIKE
Vehicle Number	MH741523
Address	pune city 411011

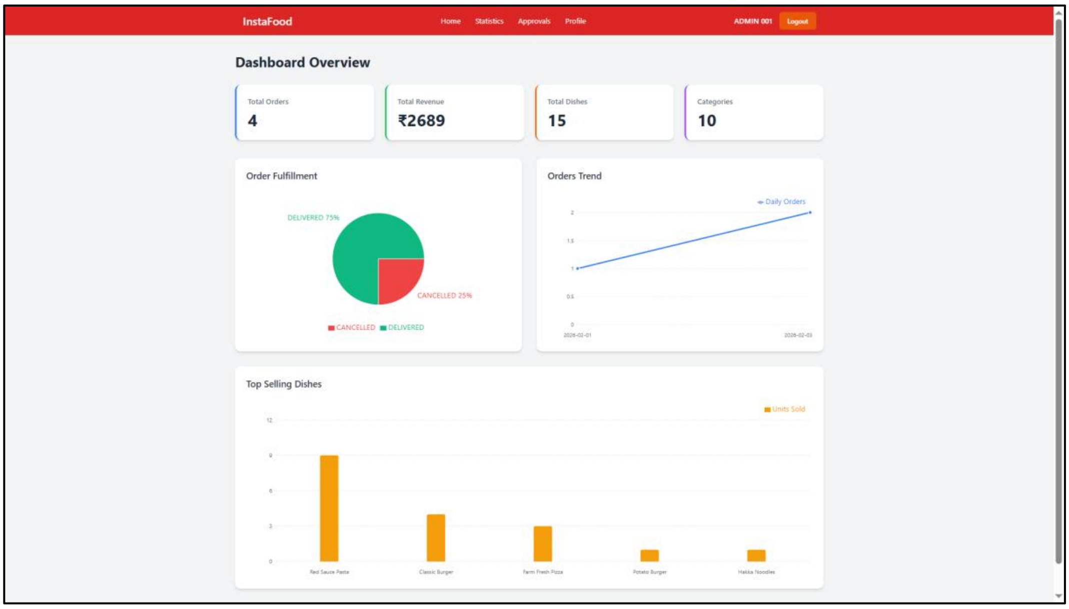

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/statistics/delivery-data
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Total Deliveries
3

Weekly New Deliveries
3

Top Delivery Partners - Ranking

Rank	Delivery Partner Name	Total Deliveries
1	Vaibhav Rajput	2
2	Neha Nair	1



Dashboard Overview

Total Orders
4

Total Revenue
₹2689

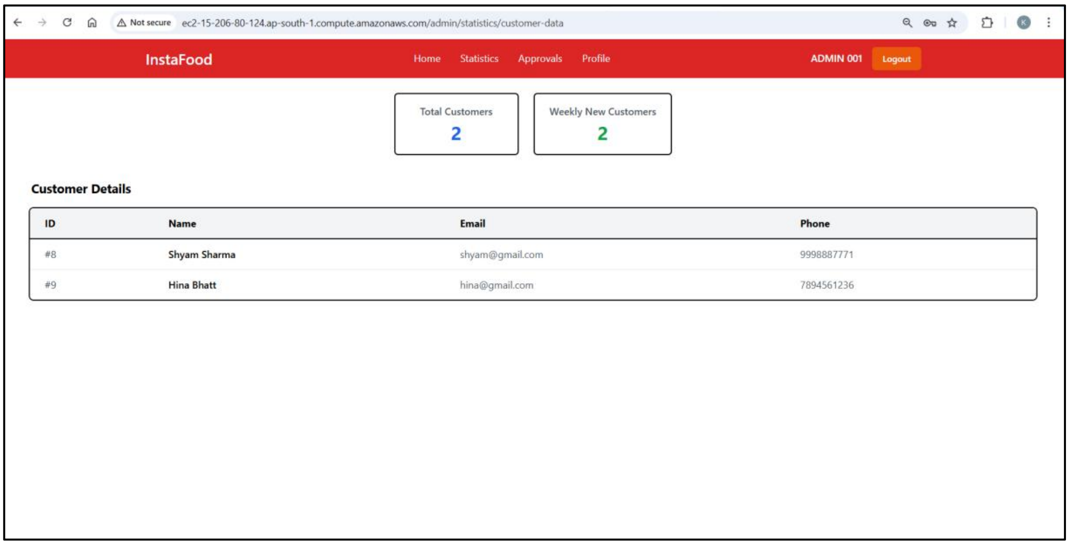
Total Dishes
15

Categories
10

Order Fulfillment

Orders Trend

Top Selling Dishes

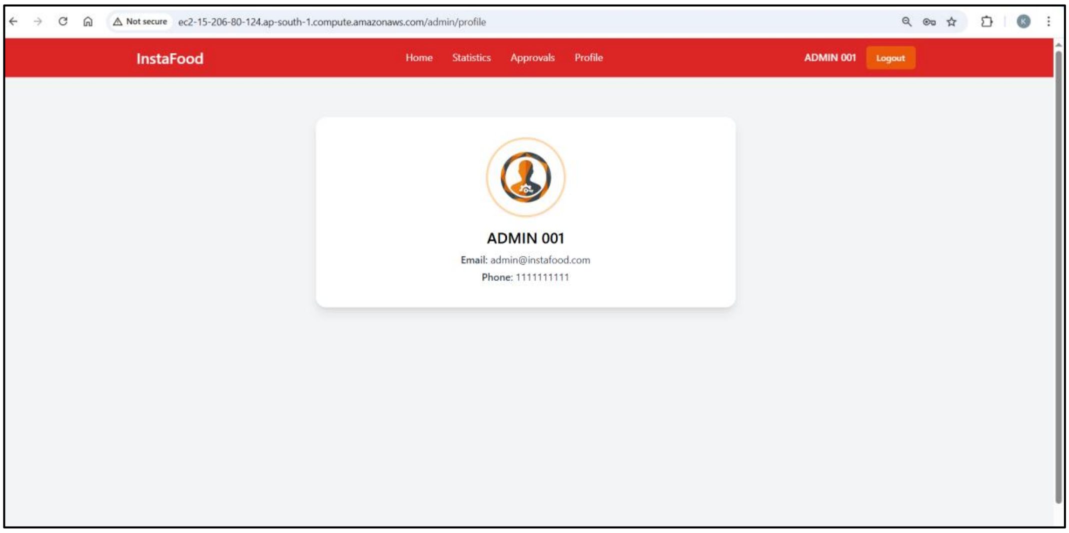

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/statistics/customer-data
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

Total Customers
2

Weekly New Customers
2

Customer Details

ID	Name	Email	Phone
#8	Shyam Sharma	shyam@gmail.com	9998887771
#9	Hina Bhatt	hina@gmail.com	7894561236

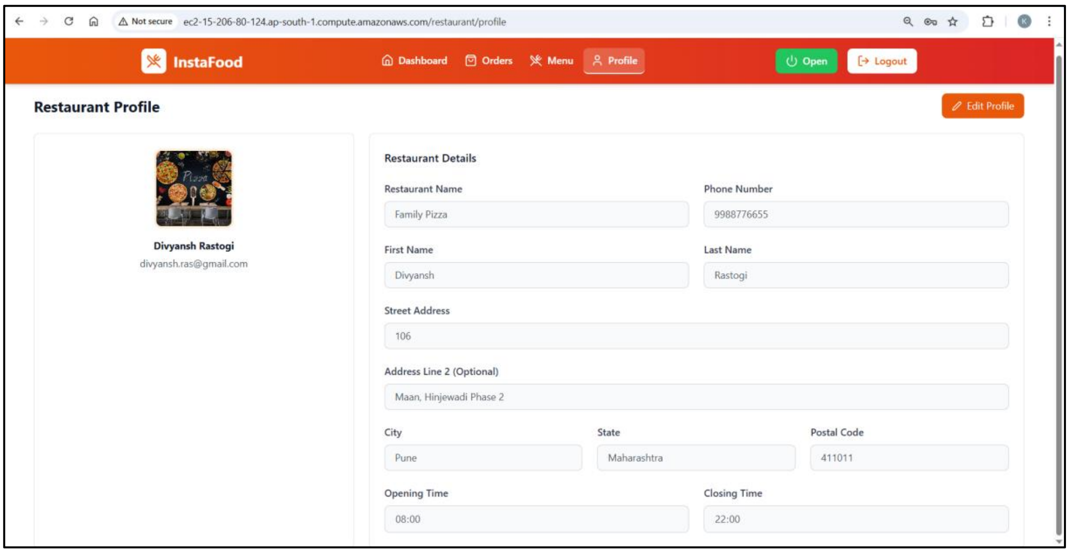

Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/admin/profile
InstaFood
Home
Statistics
Approvals
Profile
ADMIN 001
Logout

ADMIN 001

Email: admin@instafood.com

Phone: 1111111111

6.3 RESTAURANT


Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/profile
InstaFood
Dashboard
Orders
Menu
Profile
Open
Logout
Edit Profile

Restaurant Profile

Divyansh Rastogi

divyansh.ras@gmail.com

Restaurant Details

Restaurant Name: Family Pizza

Phone Number: 9988776655

First Name: Divyansh

Last Name: Rastogi

Street Address: 106

Address Line 2 (Optional): Maan, Hinjewadi Phase 2

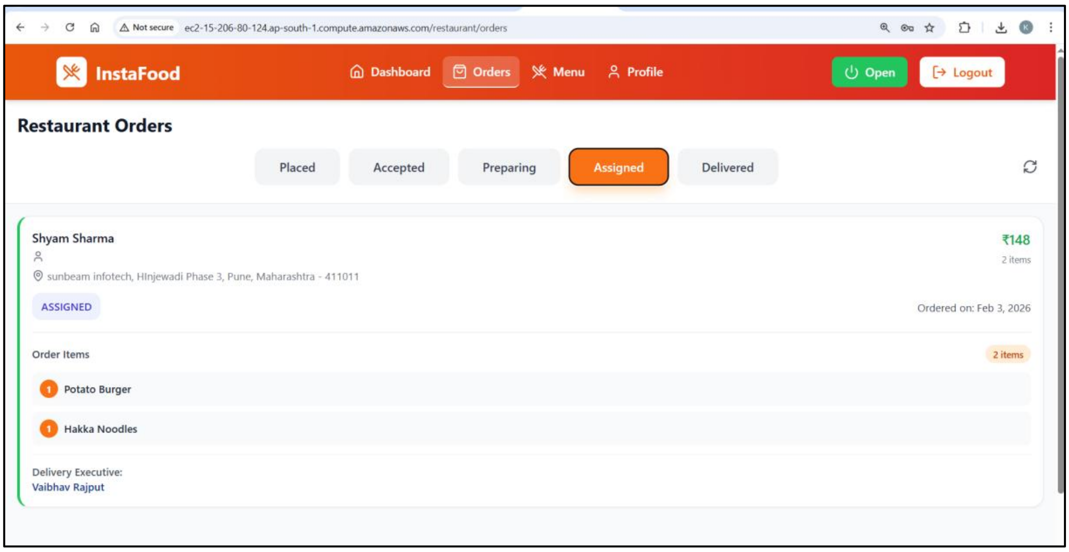
City: Pune

State: Maharashtra

Postal Code: 411011

Opening Time: 08:00

Closing Time: 22:00



Restaurant Orders

Shyam Sharma

₹148

2 items

sunbeam infotech, HInjewadi Phase 3, Pune, Maharashtra - 411011

ASSIGNED

Ordered on: Feb 3, 2026

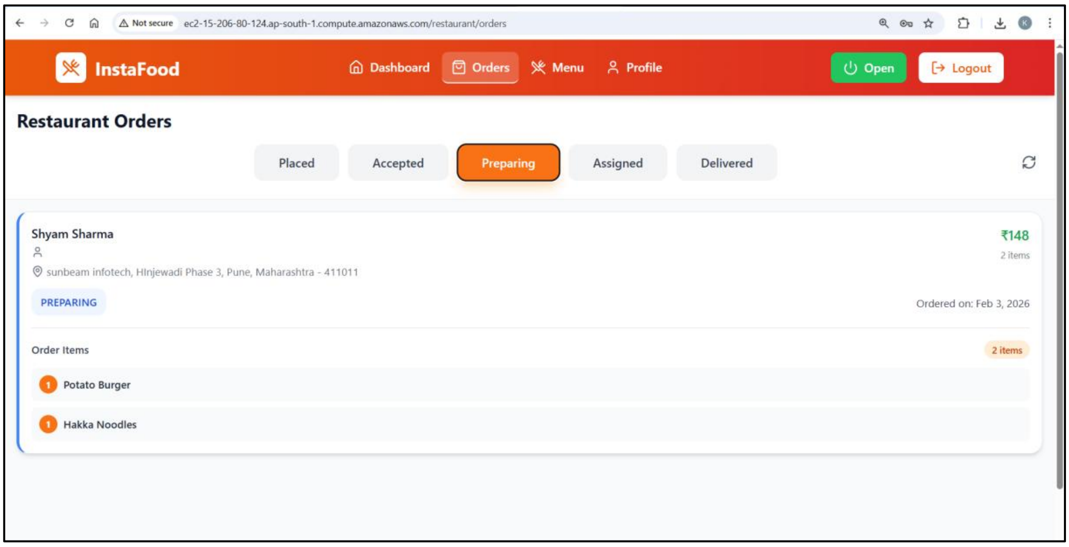
Order Items

2 items

1 Potato Burger

1 Hakka Noodles

Delivery Executive:
Vaibhav Rajput



Restaurant Orders

Shyam Sharma

sunbeam infotech, Hinjewadi Phase 3, Pune, Maharashtra - 411011

PREPARING

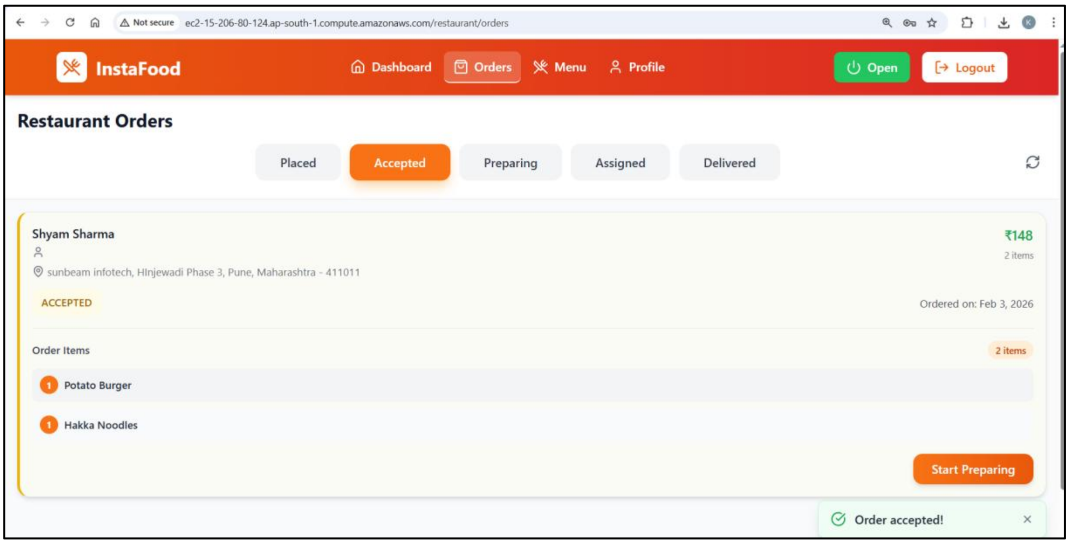
₹148
2 items

Ordered on: Feb 3, 2026

Order Items — 2 items

1 Potato Burger

1 Hakka Noodles



Restaurant Orders

Shyam Sharma

sunbeam infotech, Hinjewadi Phase 3, Pune, Maharashtra - 411011

ACCEPTED

₹148
2 items

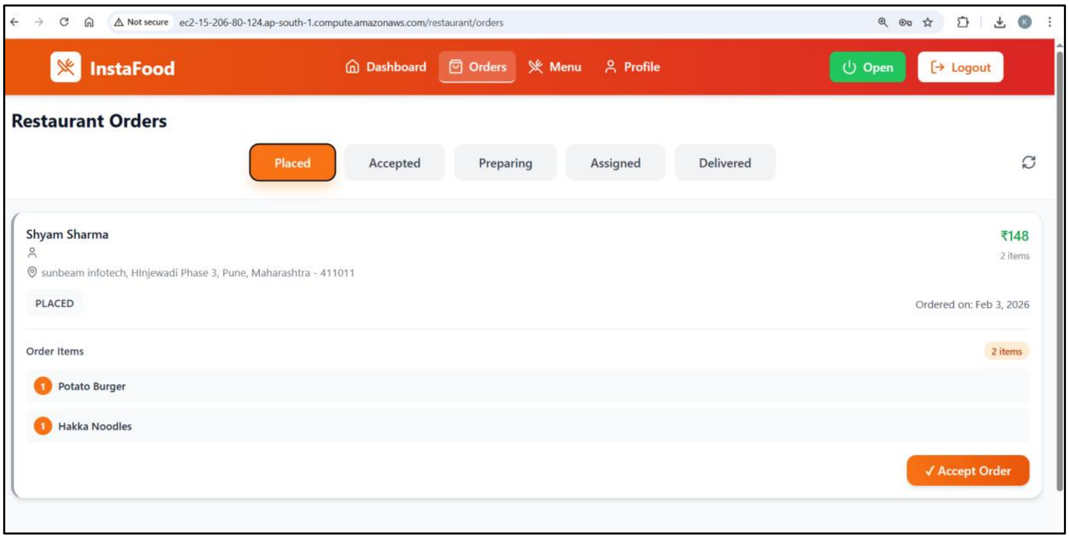
Ordered on: Feb 3, 2026

Order Items — 2 items

1 Potato Burger

1 Hakka Noodles

Order accepted!



Restaurant Orders

Shyam Sharma

sunbeam infotech, Hinjewadi Phase 3, Pune, Maharashtra - 411011

PLACED

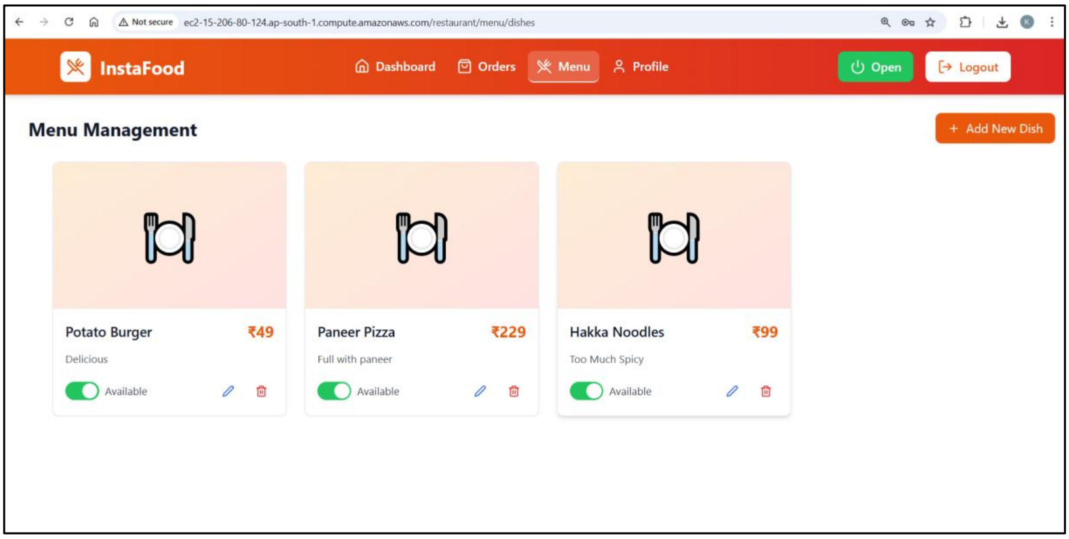
₹148
2 items

Ordered on: Feb 3, 2026

Order Items — 2 items

1 Potato Burger

1 Hakka Noodles

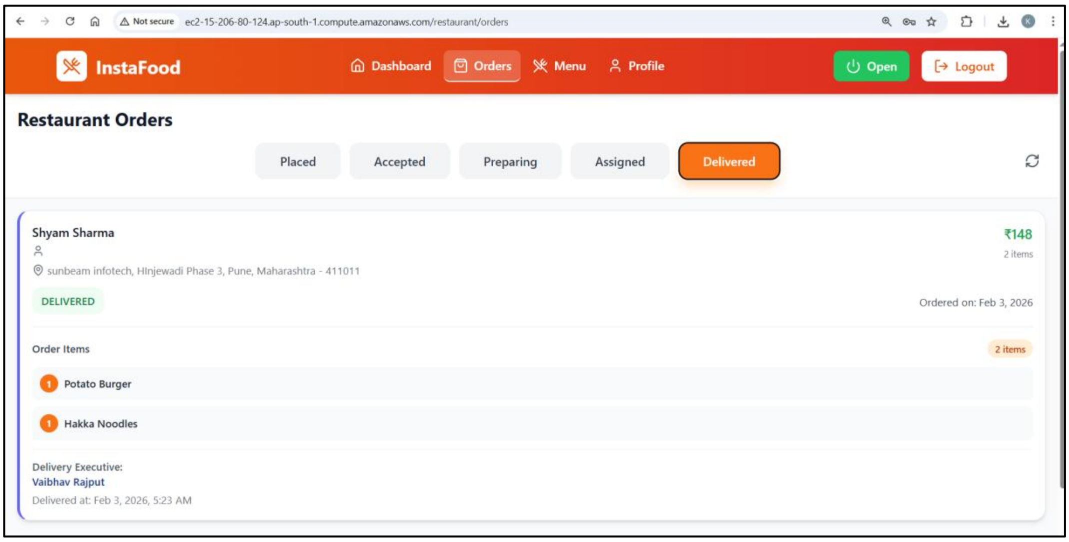

Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/menu/dishes
InstaFood
Dashboard
Orders
Menu
Profile
Open
Logout
+ Add New Dish

Menu Management

Potato Burger ₹49
Delicious
Available

Paneer Pizza ₹229
Full with paneer
Available

Hakka Noodles ₹99
Too Much Spicy
Available

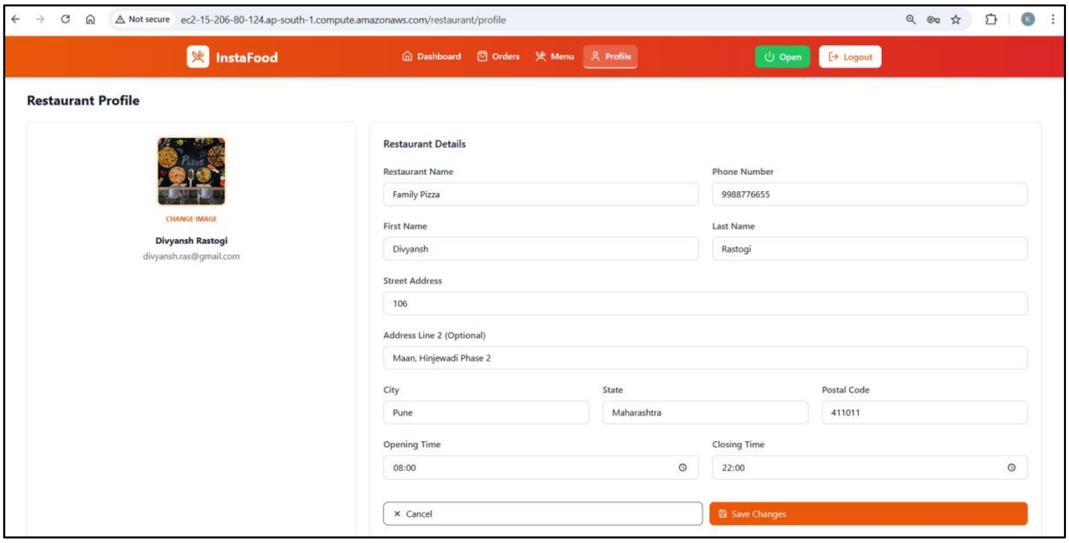


Restaurant Orders

Shyam Sharma
₹148
2 items
sunbeam infotech, HInjewadi Phase 3, Pune, Maharashtra - 411011
DELIVERED
Ordered on: Feb 3, 2026

Order Items
2 items
1 Potato Burger
1 Hakka Noodles

Delivery Executive:
Vaibhav Rajput
Delivered at: Feb 3, 2026, 5:23 AM

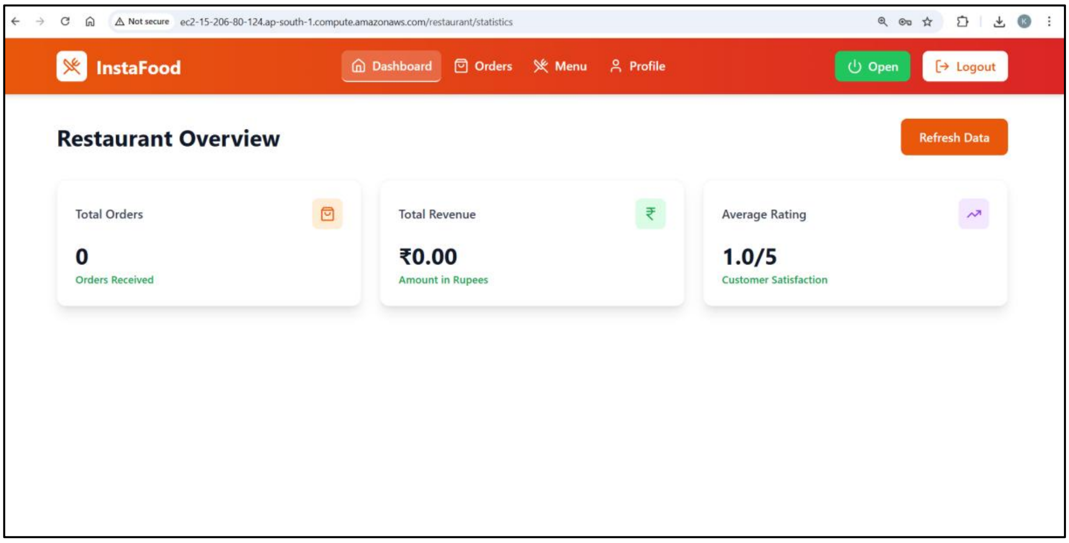

Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/profile
InstaFood
Dashboard
Orders
Menu
Profile
Open
Logout
CHANGE IMAGE
Cancel
Save Changes

Restaurant Profile

Divyansh Rastogi
divyansh.ras@gmail.com

Restaurant Details

Restaurant Name: Family Pizza
Phone Number: 9988776655
First Name: Divyansh
Last Name: Rastogi
Street Address: 106
Address Line 2 (Optional): Maan, Hinjewadi Phase 2
City: Pune
State: Maharashtra
Postal Code: 411011
Opening Time: 08:00
Closing Time: 22:00



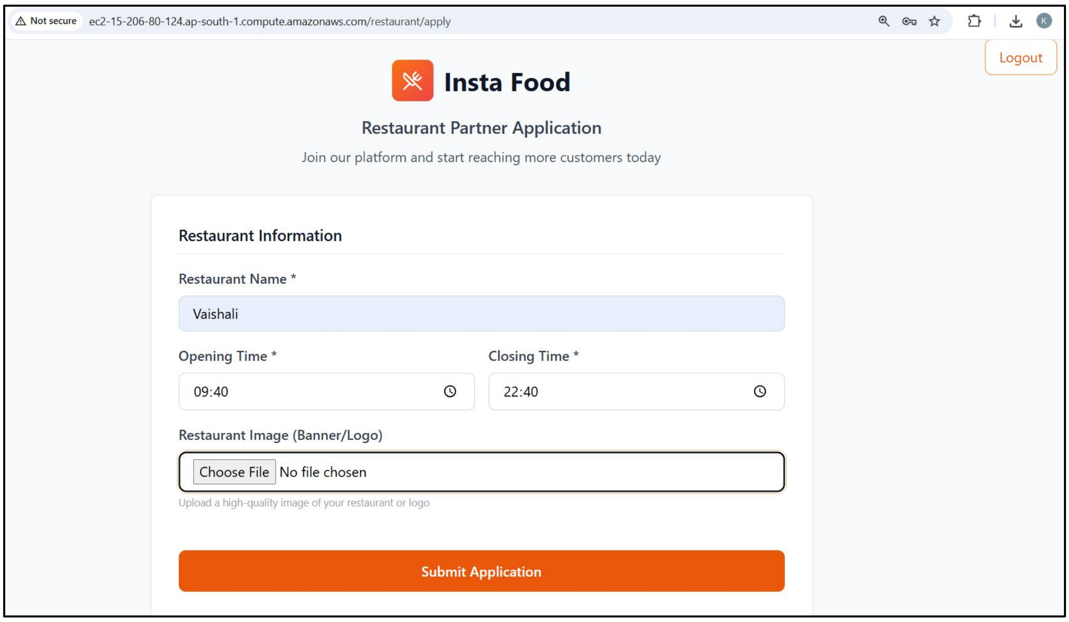
Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/statistics
InstaFood
Dashboard
Orders
Menu
Profile
Open
Logout
Refresh Data

Restaurant Overview

Total Orders
0
Orders Received

Total Revenue
₹0.00
Amount in Rupees

Average Rating
1.0/5
Customer Satisfaction



Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/apply
Logout
Insta Food
Choose File
Submit Application

Restaurant Partner Application

Join our platform and start reaching more customers today

Restaurant Information

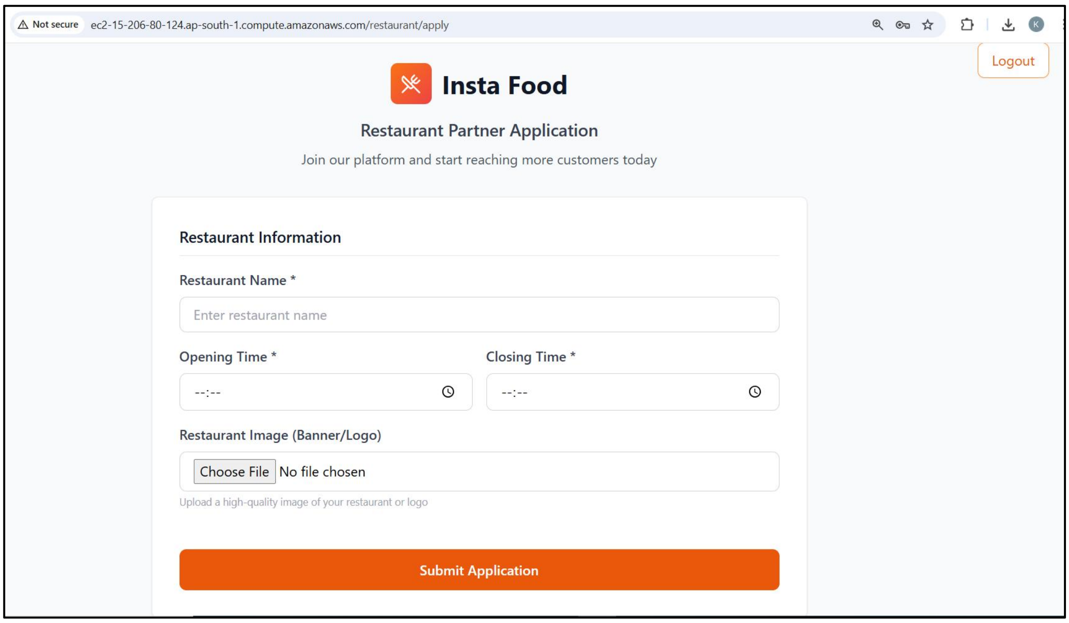
Restaurant Name * Vaishali

Opening Time * 09:40

Closing Time * 22:40

Restaurant Image (Banner/Logo) No file chosen

Upload a high-quality image of your restaurant or logo



Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/apply
Logout
Insta Food
Choose File
Submit Application

Restaurant Partner Application

Join our platform and start reaching more customers today

Restaurant Information

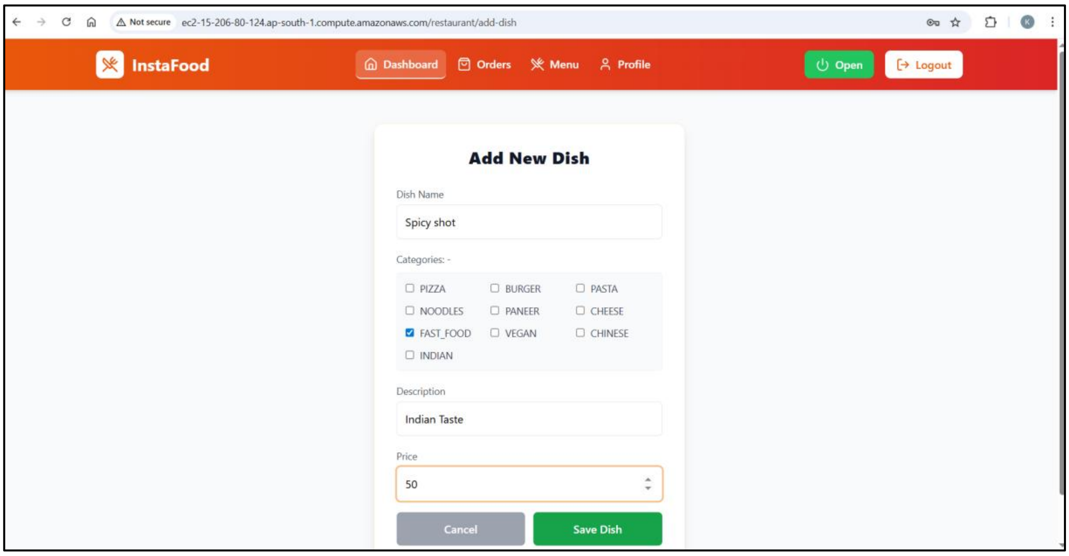
Restaurant Name * Enter restaurant name

Opening Time * --:--

Closing Time * --:--

Restaurant Image (Banner/Logo) No file chosen

Upload a high-quality image of your restaurant or logo



Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/restaurant/add-dish
InstaFood
Dashboard
Orders
Menu
Profile
Open
Logout

Add New Dish

Dish Name: Spicy shot

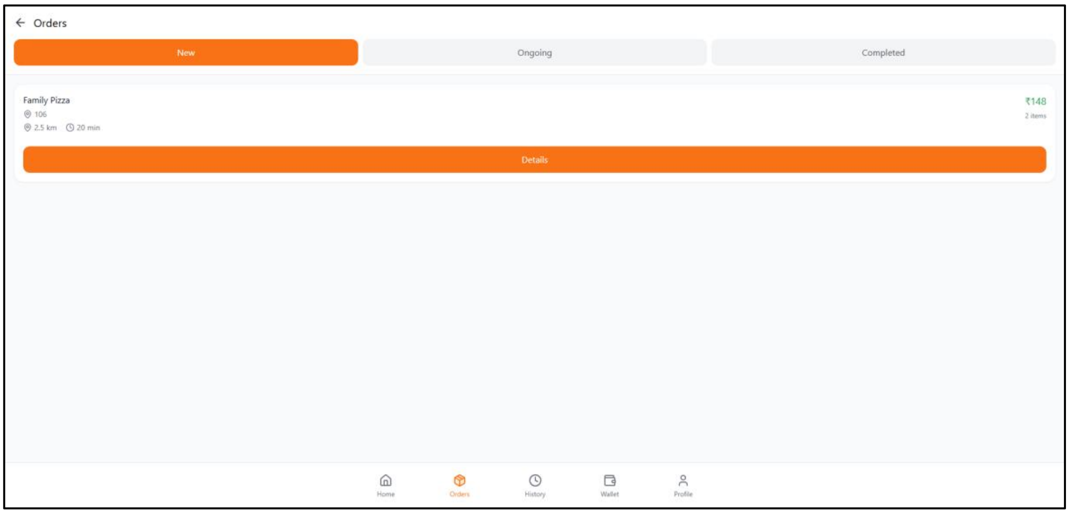
Categories: -

☐ PIZZA ☐ BURGER ☐ PASTA
☐ NOODLES ☐ PANEER ☐ CHEESE
☑ FAST_FOOD ☐ VEGAN ☐ CHINESE
☐ INDIAN

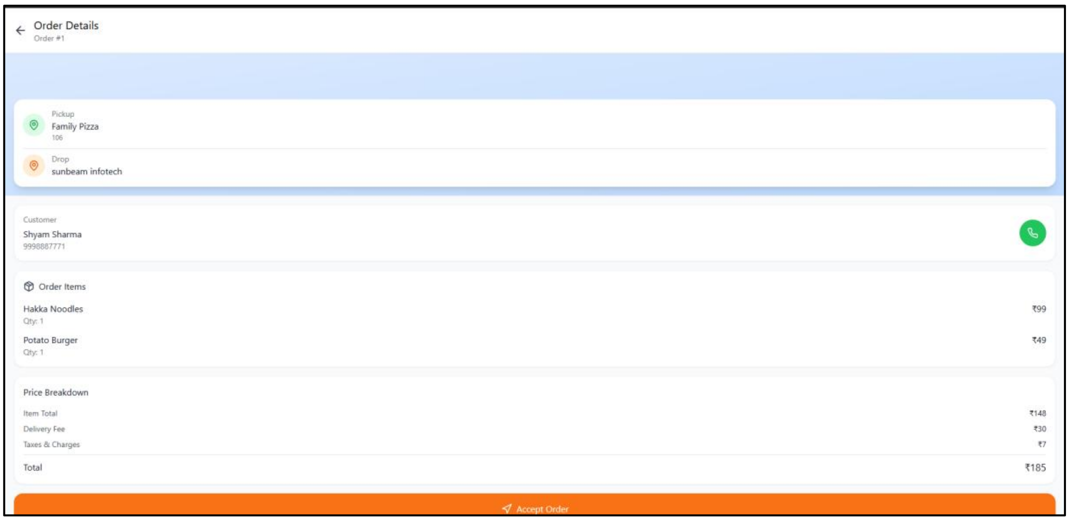
Description: Indian Taste

Price: 50

6.4 DELIVERY



Family Pizza ₹148
106 2 items
2.5 km 20 min



Order #1

Pickup
Family Pizza
106

Drop
sunbeam infotech

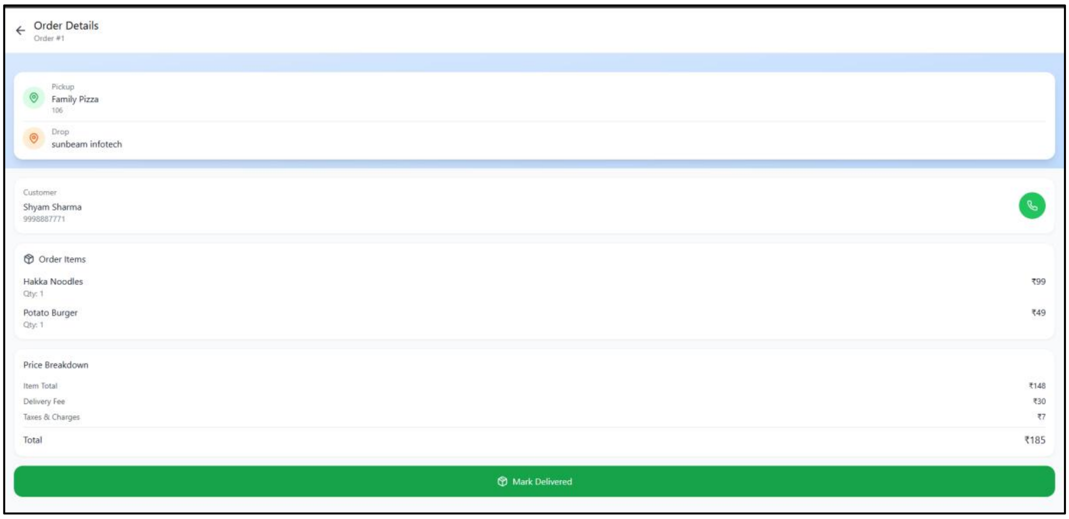
Customer
Shyam Sharma
9998887771

Order Items

Hakka Noodles Qty: 1	₹99
Potato Burger Qty: 1	₹49

Price Breakdown

Item Total	₹148
Delivery Fee	₹30
Taxes & Charges	₹7
Total	₹185



Order Details
Order #1

Pickup
Family Pizza
106

Drop
sunbeam infotech

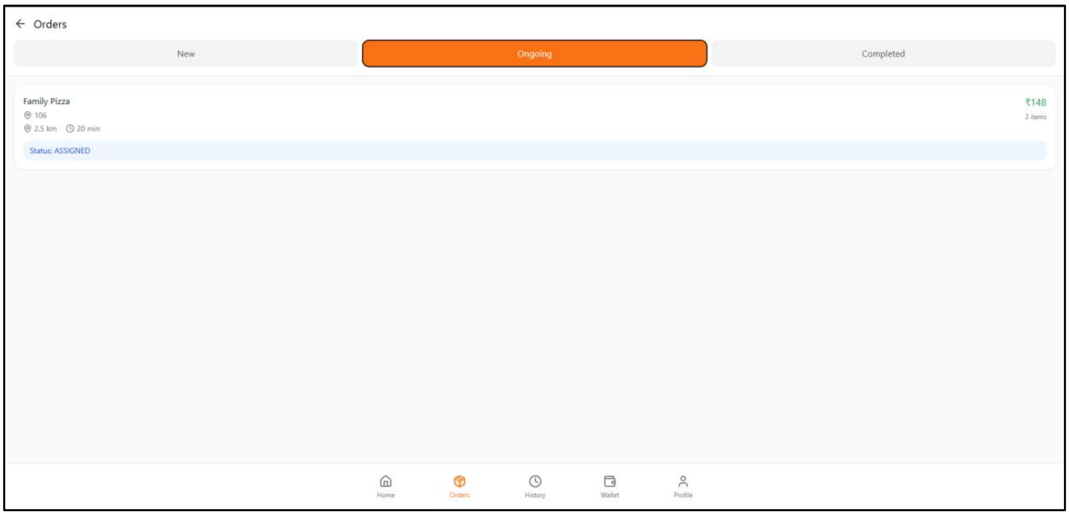
Customer
Shyam Sharma
9998887771

Order Items

Hakka Noodles Qty: 1	₹99
Potato Burger Qty: 1	₹49

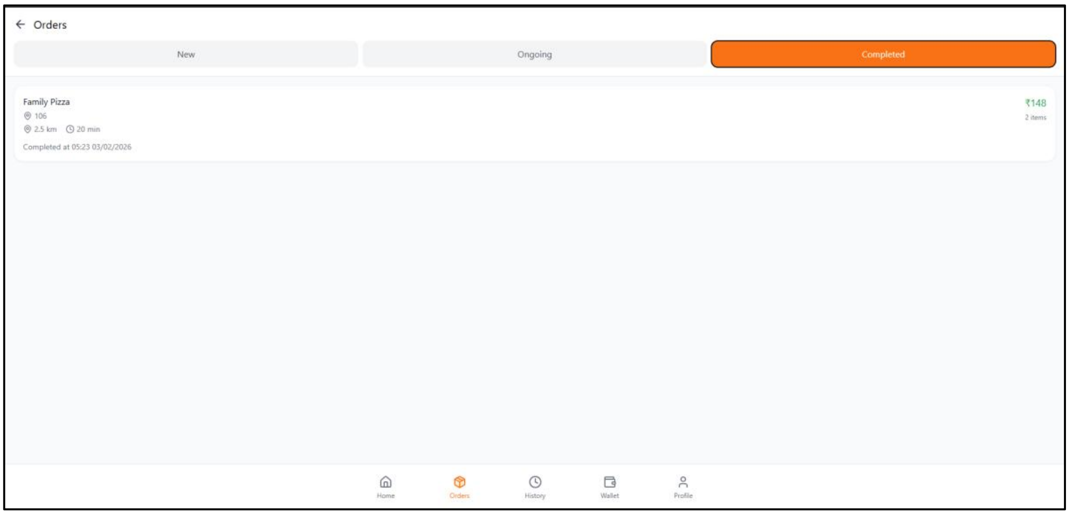
Price Breakdown

Item Total	₹148
Delivery Fee	₹30
Taxes & Charges	₹7
Total	₹185



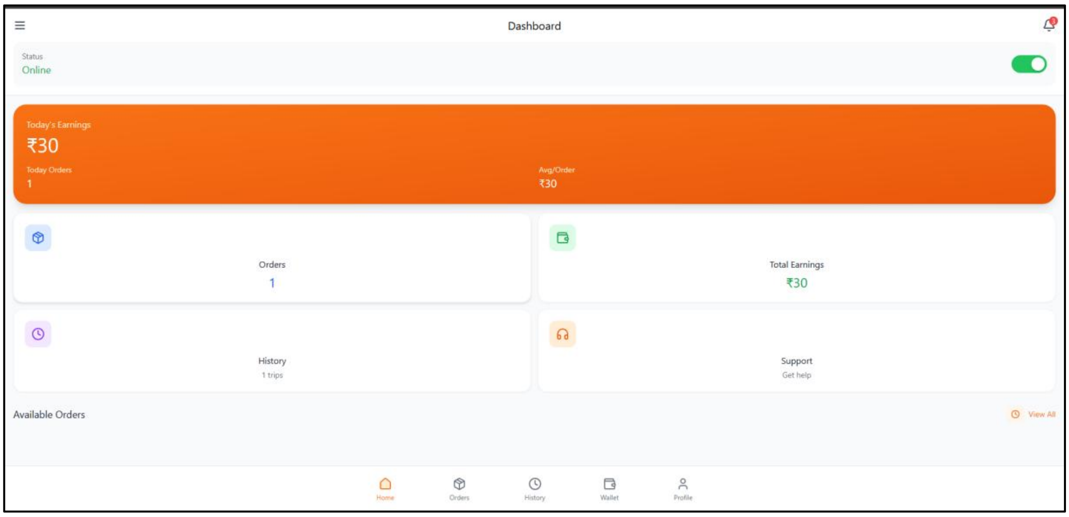
Orders

Family Pizza ₹148
106 2 items
2.5 km 20 min
Status: ASSIGNED



Orders

Family Pizza ₹148
106 2 items
2.5 km 20 min
Completed at 05:23 03/02/2026



Dashboard

Status
Online

Today's Earnings
₹30

Today Orders
1

Avg/Order
₹30

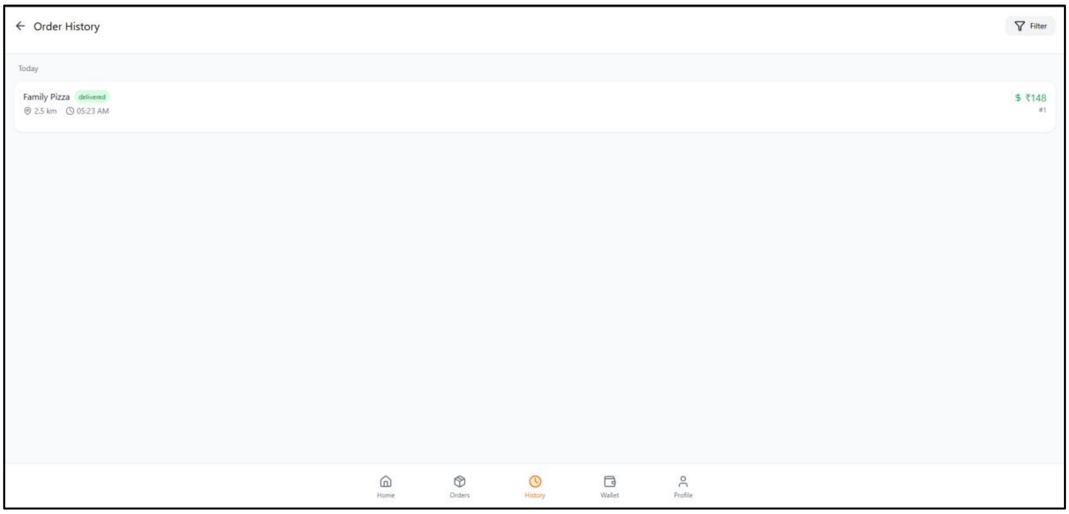
Orders
1

Total Earnings
₹30

History
1 trips

Support
Get help

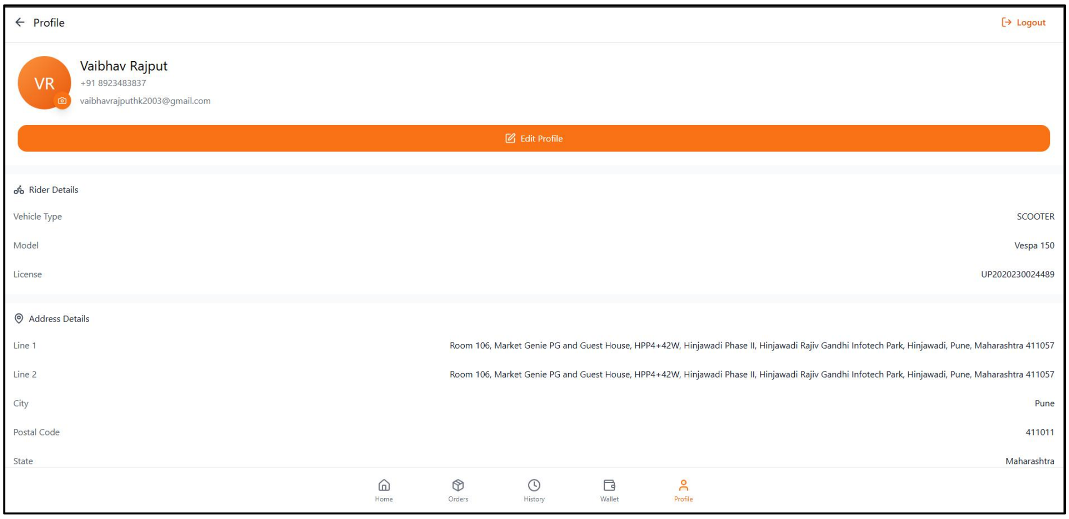
Available Orders



Order History

Today

Family Pizza delivered
2.5 km 05:23 AM
$ ₹148
#1



Profile

VR
Vaibhav Rajput
+91 8923483837
vaibhavrajputhk2003@gmail.com

Rider Details

Vehicle Type SCOOTER

Model Vespa 150

License UP2020230024489

Address Details

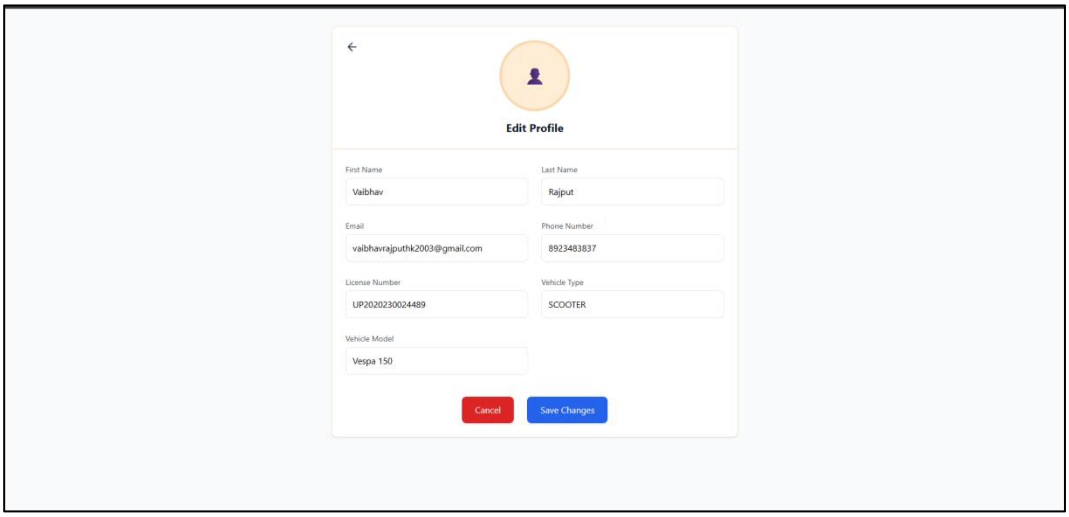
Line 1 Room 106, Market Genie PG and Guest House, HPP4+42W, Hinjawadi Phase II, Hinjawadi Rajiv Gandhi Infotech Park, Hinjawadi, Pune, Maharashtra 411057

Line 2 Room 106, Market Genie PG and Guest House, HPP4+42W, Hinjawadi Phase II, Hinjawadi Rajiv Gandhi Infotech Park, Hinjawadi, Pune, Maharashtra 411057

City Pune

Postal Code 411011

State Maharashtra



Edit Profile

First Name: Vaibhav

Last Name: Rajput

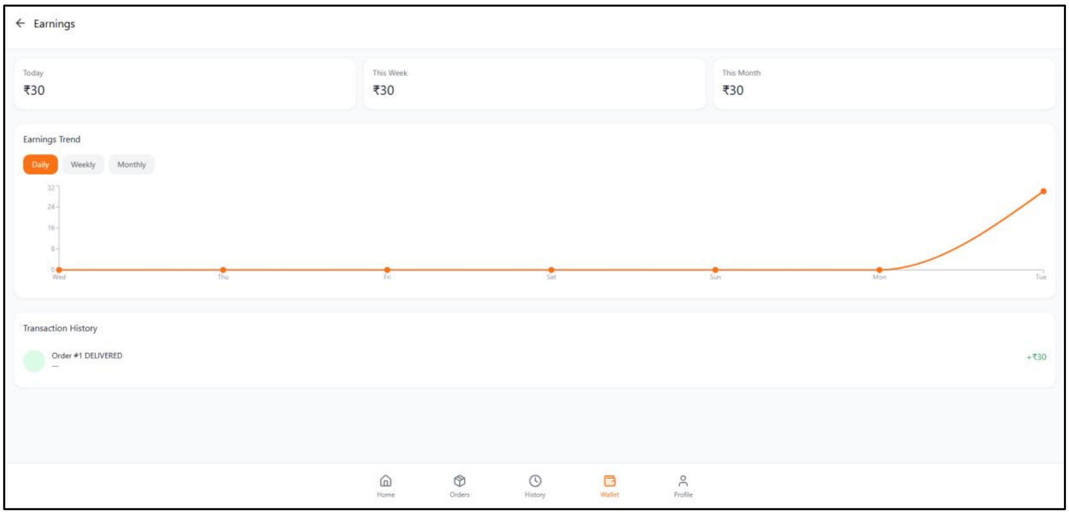
Email: vaibhavrajputhk2003@gmail.com

Phone Number: 8923483837

License Number: UP2020230024489

Vehicle Type: SCOOTER

Vehicle Model: Vespa 150



Earnings

Today ₹30

This Week ₹30

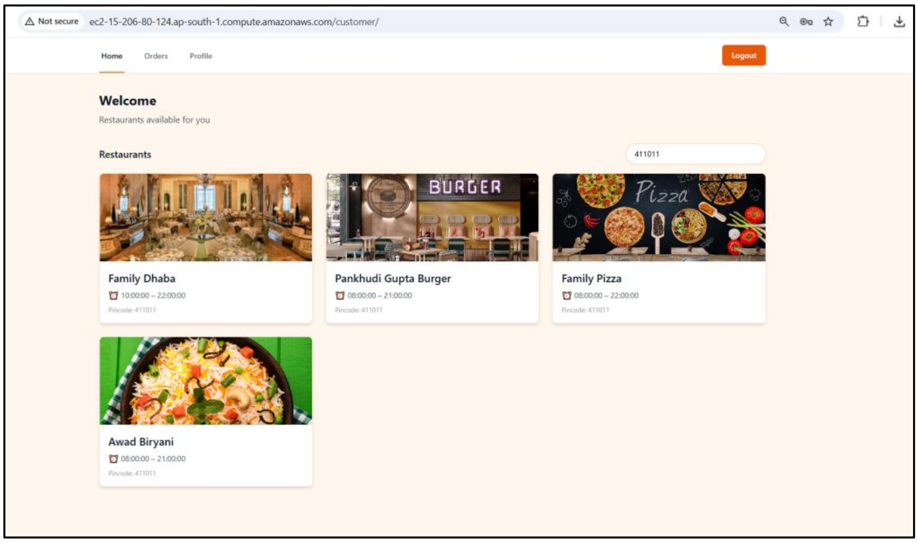
This Month ₹30

Earnings Trend

Transaction History

Order #1 DELIVERED +₹30

6.5 CUSTOMER


Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/
Home
Orders
Profile
Logout

Welcome

Restaurants available for you

Restaurants

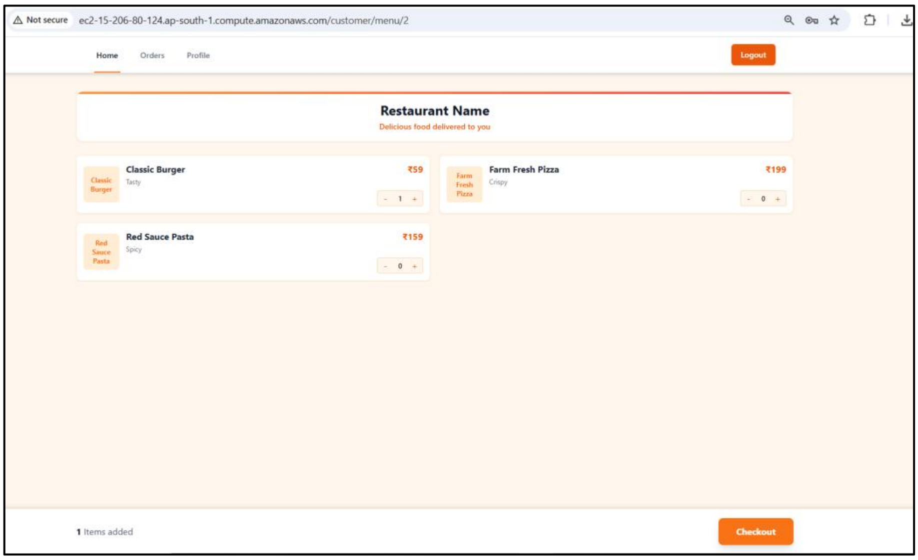
411011

Family Dhaba
10:00:00 – 22:00:00
Pincode: 411011

Pankhudi Gupta Burger
08:00:00 – 21:00:00
Pincode: 411011

Family Pizza
08:00:00 – 22:00:00
Pincode: 411011

Awad Biryani
08:00:00 – 21:00:00
Pincode: 411011

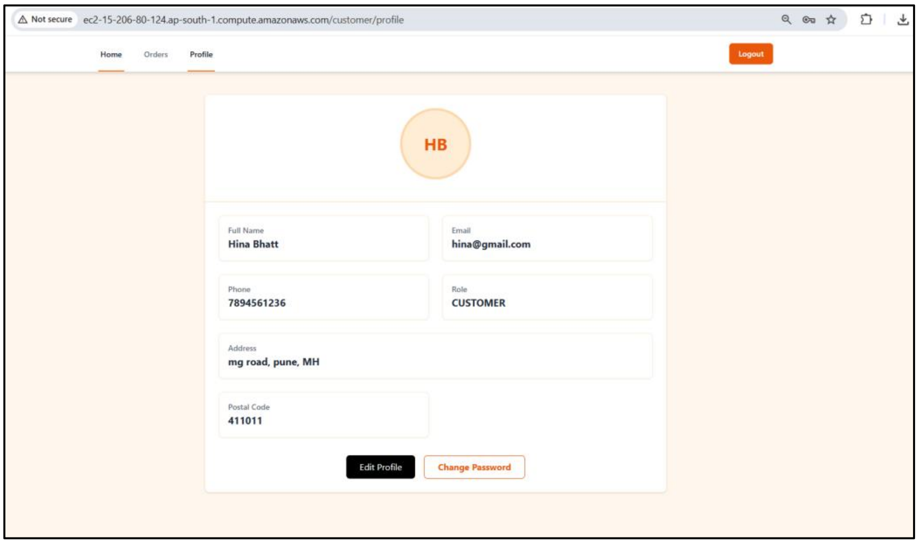

Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/menu/2
Home
Orders
Profile
Logout

Restaurant Name

Delicious food delivered to you

Classic Burger	**Classic Burger** Tasty	₹59	- 1 +
Farm Fresh Pizza	**Farm Fresh Pizza** Crispy	₹199	- 0 +
Red Sauce Pasta	**Red Sauce Pasta** Spicy	₹159	- 0 +

1 Items added


Not secure
ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/profile
Home
Orders
Profile
Logout
HB

Full Name
Hina Bhatt

Email
hina@gmail.com

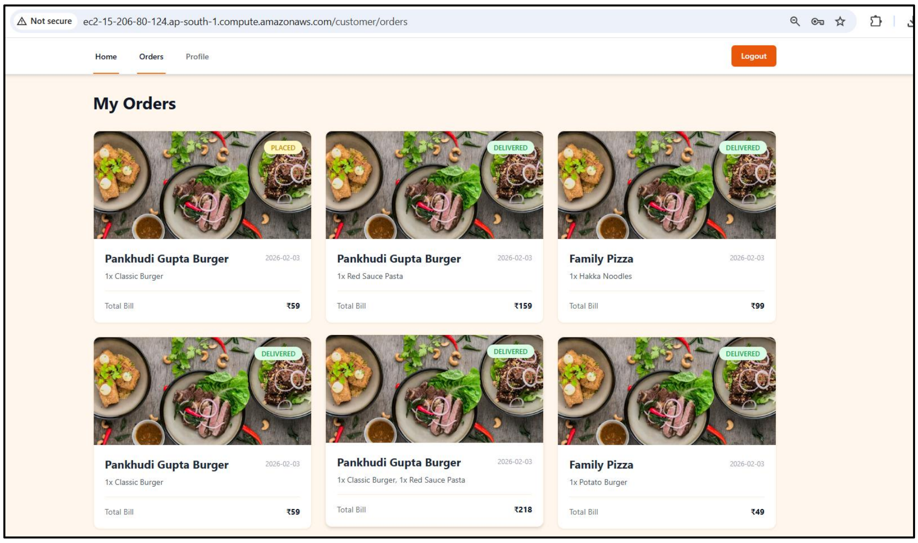
Phone
7894561236

Role
CUSTOMER

Address
mg road, pune, MH

Postal Code
411011

Edit Profile
Change Password



⚠ Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/orders

My Orders

PLACED	Pankhudi Gupta Burger	2026-02-03	1x Classic Burger
DELIVERED	Pankhudi Gupta Burger	2026-02-03	1x Red Sauce Pasta
DELIVERED	Family Pizza	2026-02-03	1x Hakka Noodles
DELIVERED	Pankhudi Gupta Burger	2026-02-03	1x Classic Burger
DELIVERED	Pankhudi Gupta Burger	2026-02-03	1x Classic Burger, 1x Red Sauce Pasta
DELIVERED	Family Pizza	2026-02-03	1x Potato Burger

Total Bill ₹59

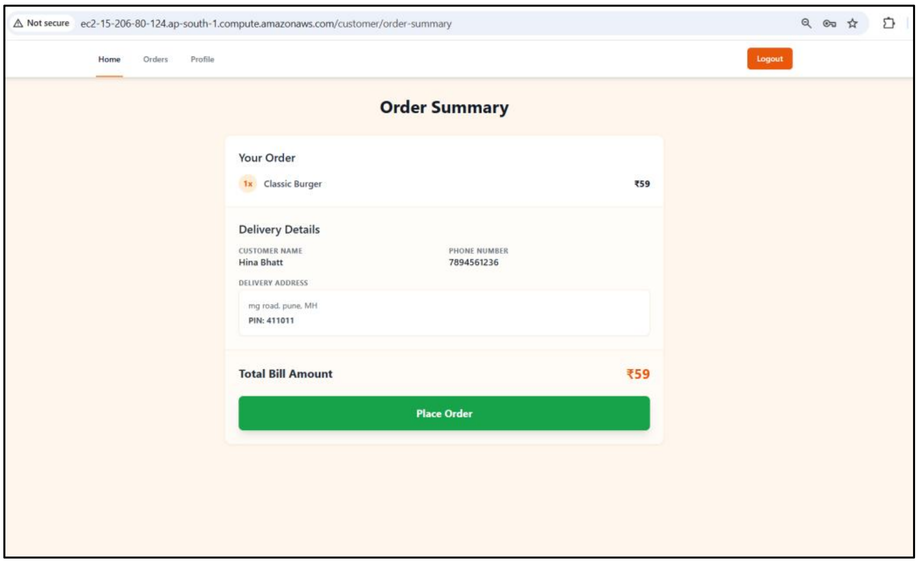
Total Bill ₹159

Total Bill ₹99

Total Bill ₹59

Total Bill ₹218

Total Bill ₹49



⚠ Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/order-summary

Order Summary

Your Order

1x Classic Burger ₹59

Delivery Details

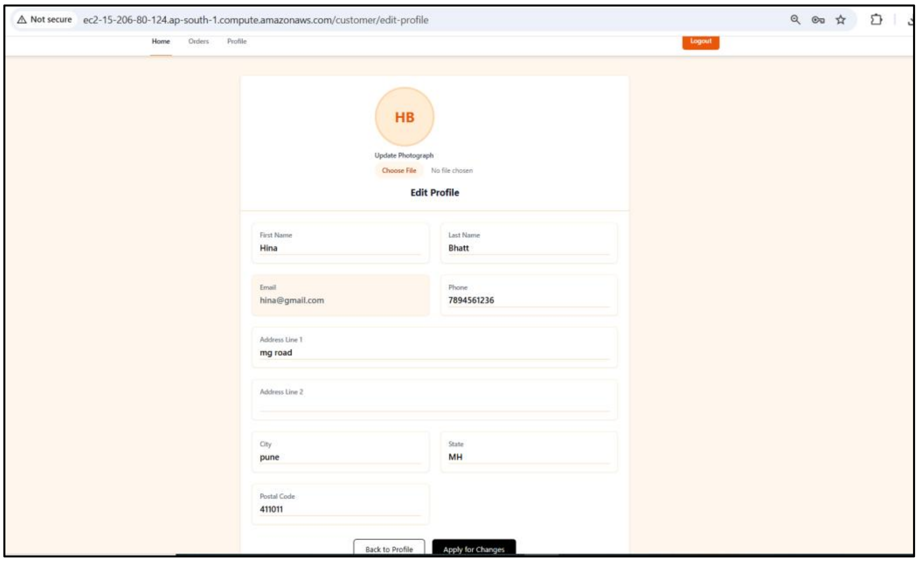
CUSTOMER NAME
Hina Bhatt

PHONE NUMBER
7894561236

DELIVERY ADDRESS

mg road, pune, MH
PIN: 411011

Total Bill Amount ₹59



⚠ Not secure ec2-15-206-80-124.ap-south-1.compute.amazonaws.com/customer/edit-profile

No file chosen

Edit Profile

First Name: Hina

Last Name: Bhatt

Email: hina@gmail.com

Phone: 7894561236

Address Line 1: mg road

Address Line 2:

City: pune

State: MH

Postal Code: 411011

7. REFERENCES

- ✓ https://www.oracle.com/java/
- ✓ https://docs.oracle.com/en/java/
- ✓ https://docs.oracle.com/javase/tutorial/
- ✓ https://spring.io/projects/spring-boot
- ✓ https://docs.spring.io/spring-boot/docs/current/reference/html/
- ✓ https://docs.spring.io/spring-framework/docs/current/reference/html/
- ✓ https://developer.mozilla.org/en-US/
- ✓ https://www.w3.org/
- ✓ https://www.w3schools.com/
- ✓ https://hibernate.org/orm/documentation/
- ✓ https://docs.jboss.org/hibernate/orm/
- ✓ https://dev.mysql.com/doc/
- ✓ https://www.postgresql.org/docs/
- ✓ https://stackoverflow.com/
- ✓ https://github.com/