FOOD ORDERING AND RESERVATION SYSTEM

PROJECT REPORT

GROUP MEMBERS

MUHAMMAD HUZAIFA KHAN 20K-1708
KONAIN AHMED SIDDIQUI 20K-1645
SAEED KAMRAN 20K-1042

PROJECT REPORT:

1) Introduction:

The project entails a restaurant's online website where a customer is allowed to order food and make reservations, the inspiration is taken from restaurants e-commerce websites plus the additional features of the supermarkets' e-commerce website. The system offers a host of features for both the user and the admin.
The major functions that the system must perform are:

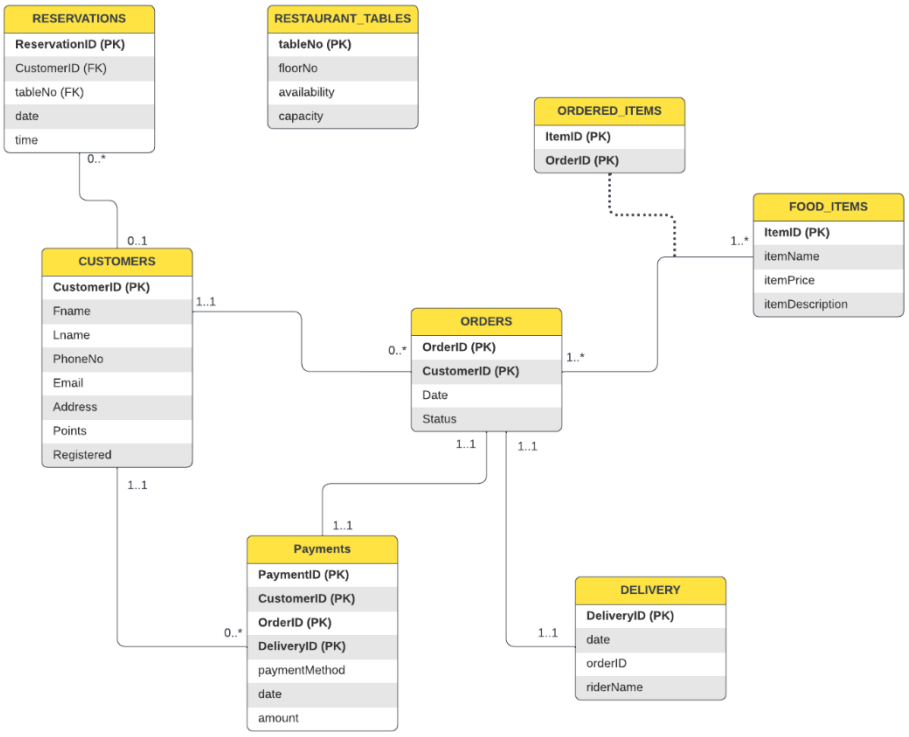
- Sign in (for customer and log in)
- Sign up for customer
- Inventory mgmt. for the admin
- Reservations approval for the admin
- Profits generated seen by the admin
- Ordered orders seen by the admin
- Reservation making by the customer
- Food ordered by the customer
- Feedback provided by the customer
- Bill generation

2) Frontend and Backend Technologies:

Frontend: HTML, CSS, JSP

Backend: JAVA, MySQL

3) System Design:



Entities: Customers, Reservations, Food Items, Orders, Payments

4) NORMALIZATION:

The table is already in 1NF

Food_Items is already in 3NF.

All attributes of Restaurant_Tables were in Reservations table but because of partial dependency on composite key of (ReservationID, TableNo) are now in there 2NF forms.

All the attributes of Orders, Customers, Delivery were in Payments table but because of partial dependency on Composite Key of (CustomerID, OrderID, PaymentID, DeliveyID) are now in there 2NF forms.

Functional Dependencies:

1) CustomerID -> Fname, Lname, PhoneNo, Email, Address, Points, Registered
2) OrderID, CustomerID -> Date, Status
3) ItemID -> itemName, itemPrice, itemDescription
4) CustomerID, OrderID, PaymentID, DeliveyID -> paymentMethod, date, amount
5) DeliveryID -> date, riderName
6) ReservationID -> CustomerID, tableNo, time, Date
7) tabelNo -> floorNo, availability, capacity

2NF form:

CUSTOMERS

CustomerID	Fname	Lname	PhoneNo	Email	Address	Points	Registered

ORDERS

OrderID	customerID	Date	status

FOOD_ITEMS

ItemID	itemName	itemPrice	itemDescription

PAYMENTS

paymentID	customerID	orderID	DeliveryID	paymentMethod	Date	Amount	riderName

RESERVATIONS

ReservationID	customerID	tableNo	time	Date

RESTAURANT_TABLES

tableNo	floorNo	Availablilty	Capacity

3NF Form:

Because of FD 5 we have a transitive dependency so the table payments will look like:

PAYMENTS

paymentID	customerID	orderID	DeliveryID	paymentMethod	Date	Amount

Delivery

DeliveryID	OrderID	riderName	Date

5) Triggers and Views:

Trigger:

```
CREATE DEFINER = CURRENT_USER TRIGGER `scdproject`.`food_items_BEFORE_INSERT` BEFORE INSERT ON `food_items` FOR EACH ROW
BEGIN
UPDATE FOOD_ITEMS SET OLD_PRICE = old.ITEM_PRICE WHERE ITEM_PRICE = old.ITEM_PRICE;
END
```

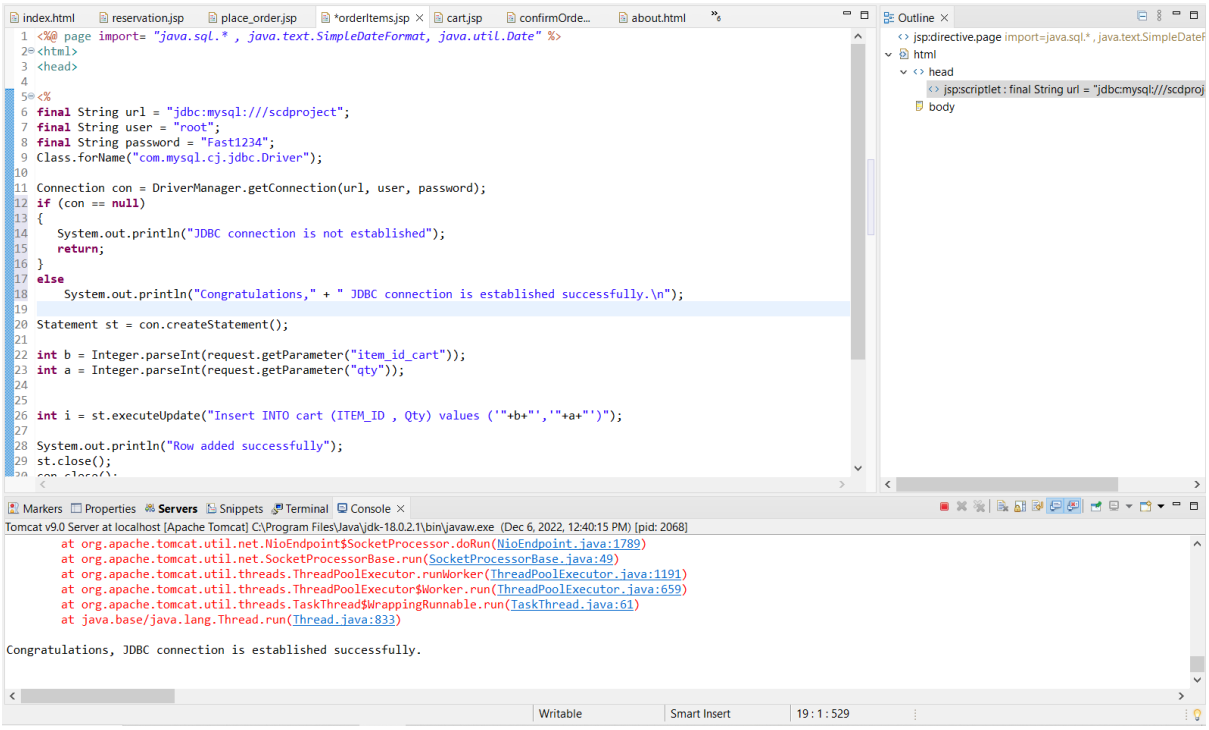
This trigger is used to save old price of menu items in case of accidental update or change.

View:

```
CREATE VIEW [ADMIN CUSTOMER] AS
SELECT FIRST_NAME, LAST_NAME, EMAIL
FROM CUSTOMERS
WHERE RESGISTERED = 1;
```

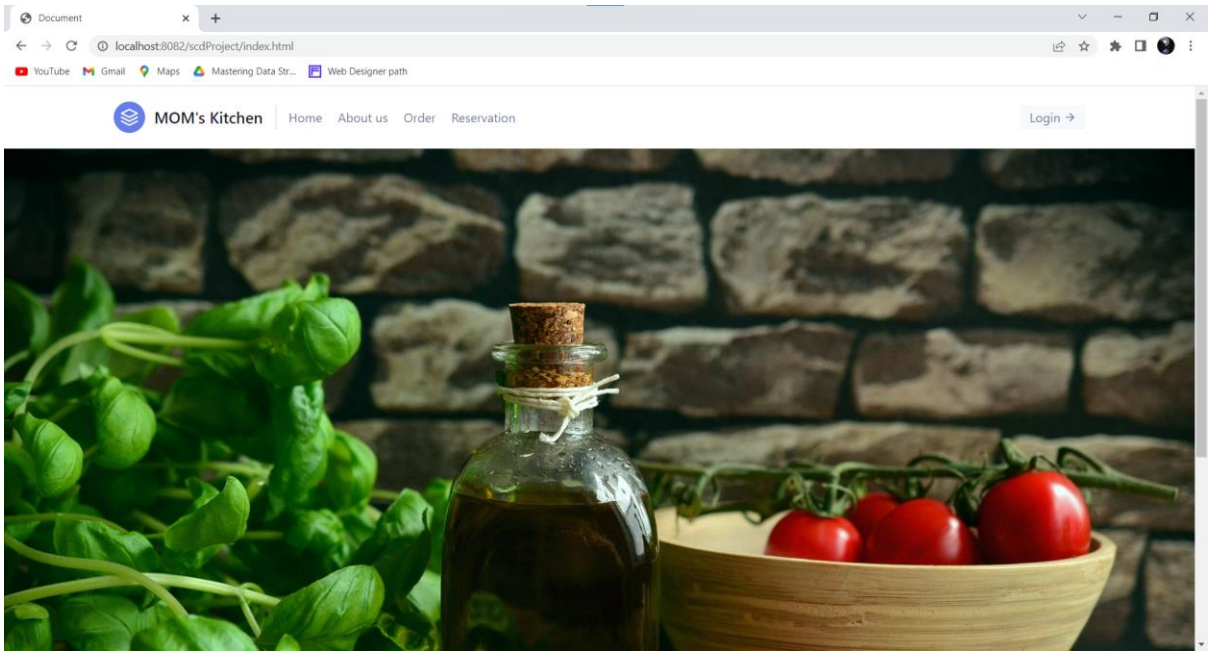
This view is created for the admin user so it can limit the information seen by admin such as password.

CONNECTION SCREENSHOT:

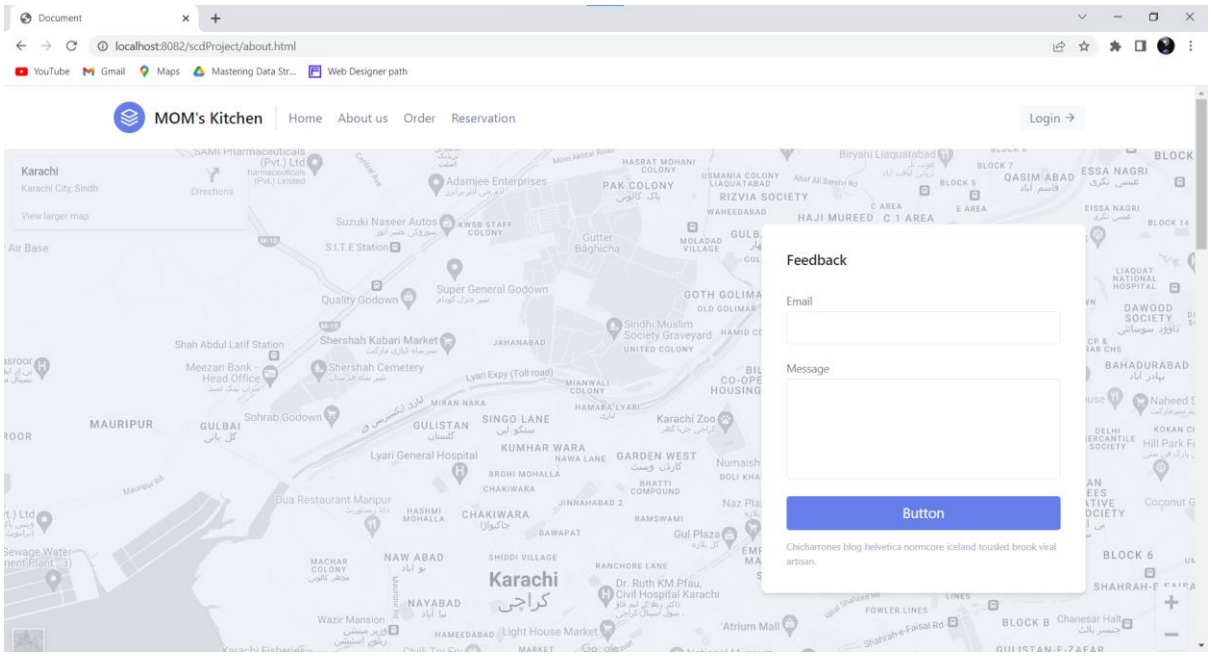


SCREENSHOTS OF PROJECT:

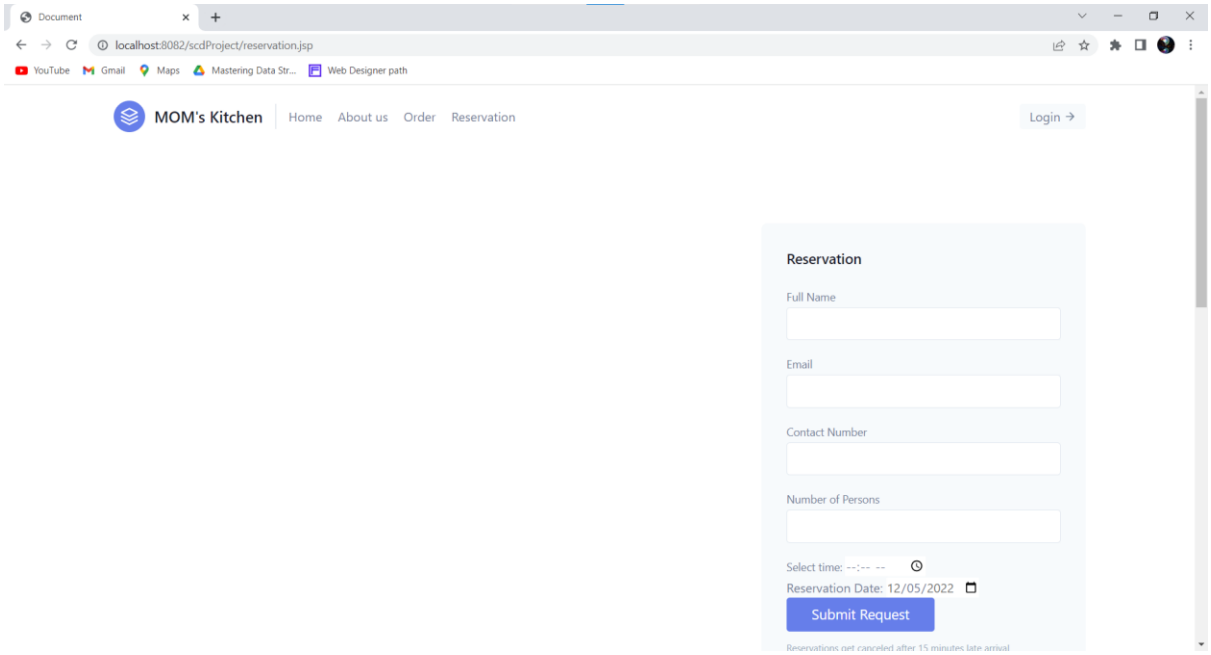
Home Page:



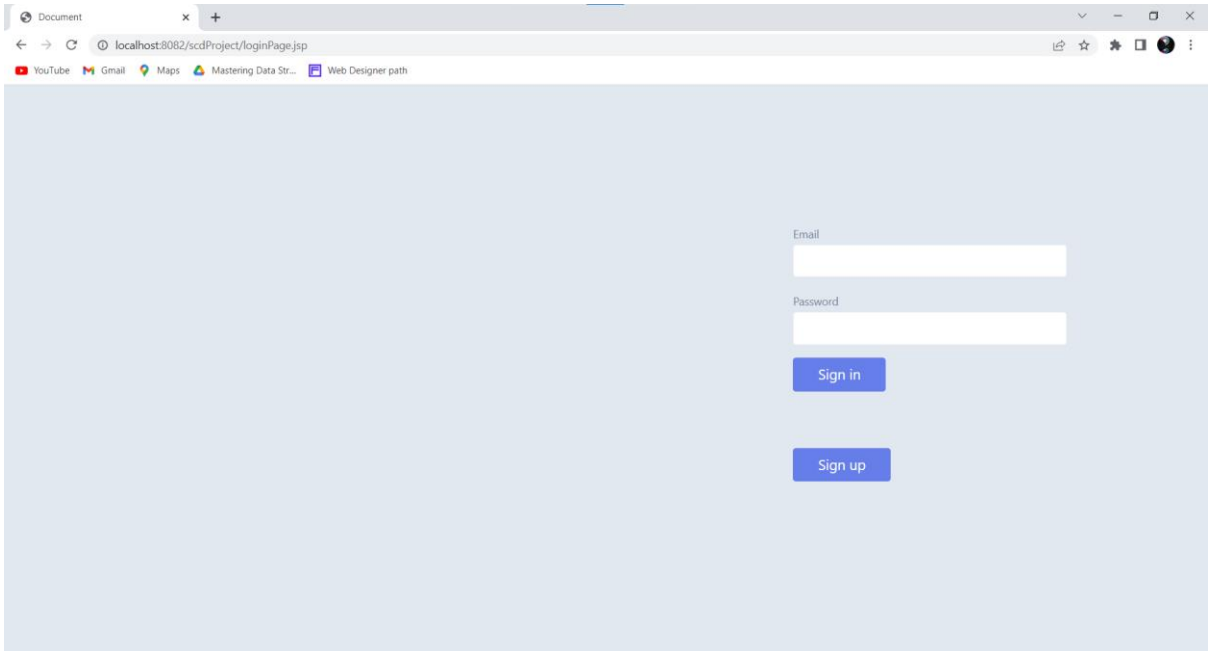
About us:



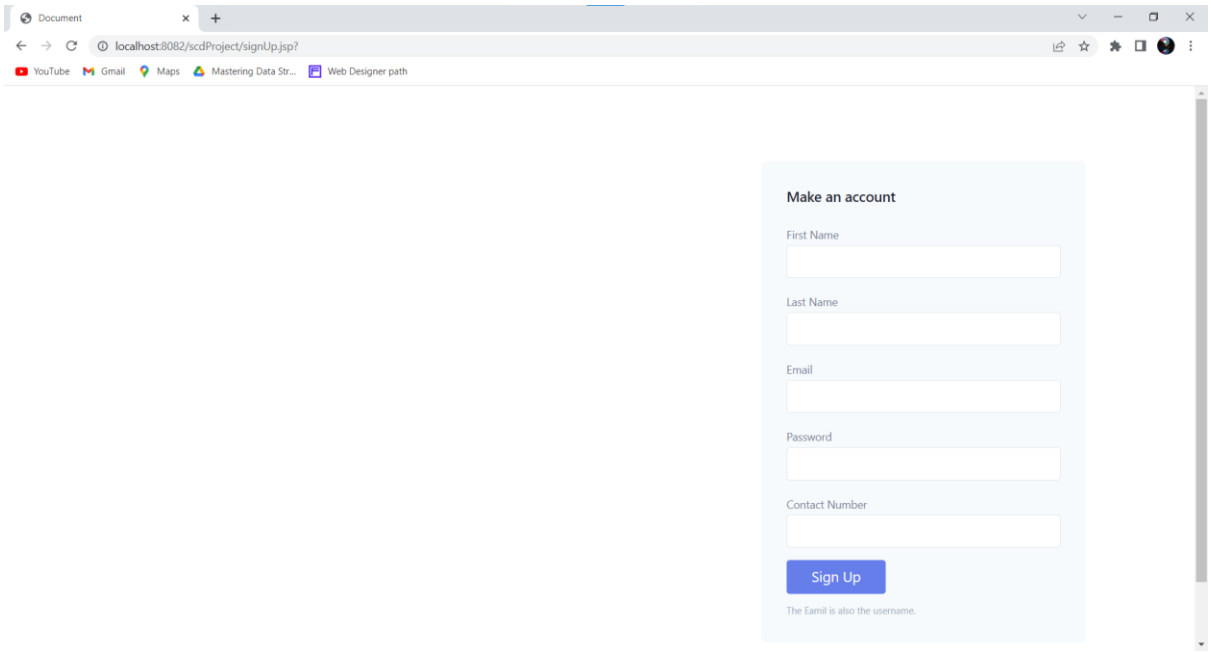
Reservation:



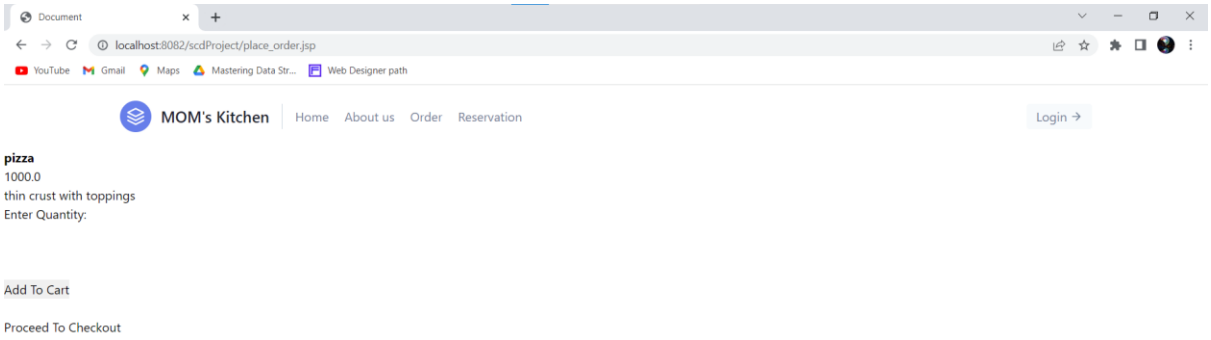
Sign in:



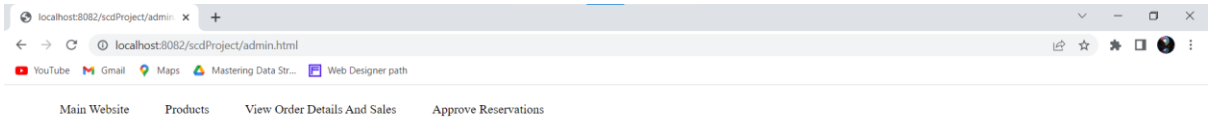
Sign up:

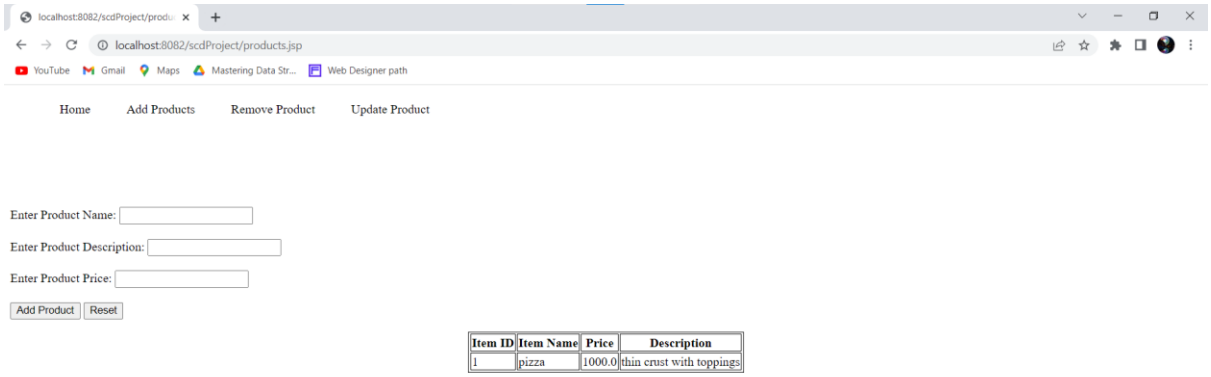


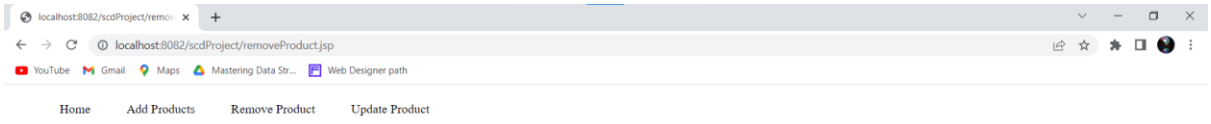
Order:



Admin Features:





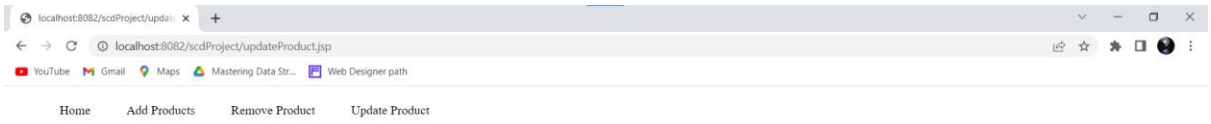


Home Add Products Remove Product Update Product

Enter Product ID:

Remove Product Reset

Item ID	Item Name	Price	Description
1	pizza	1000.0	thin crust with toppings



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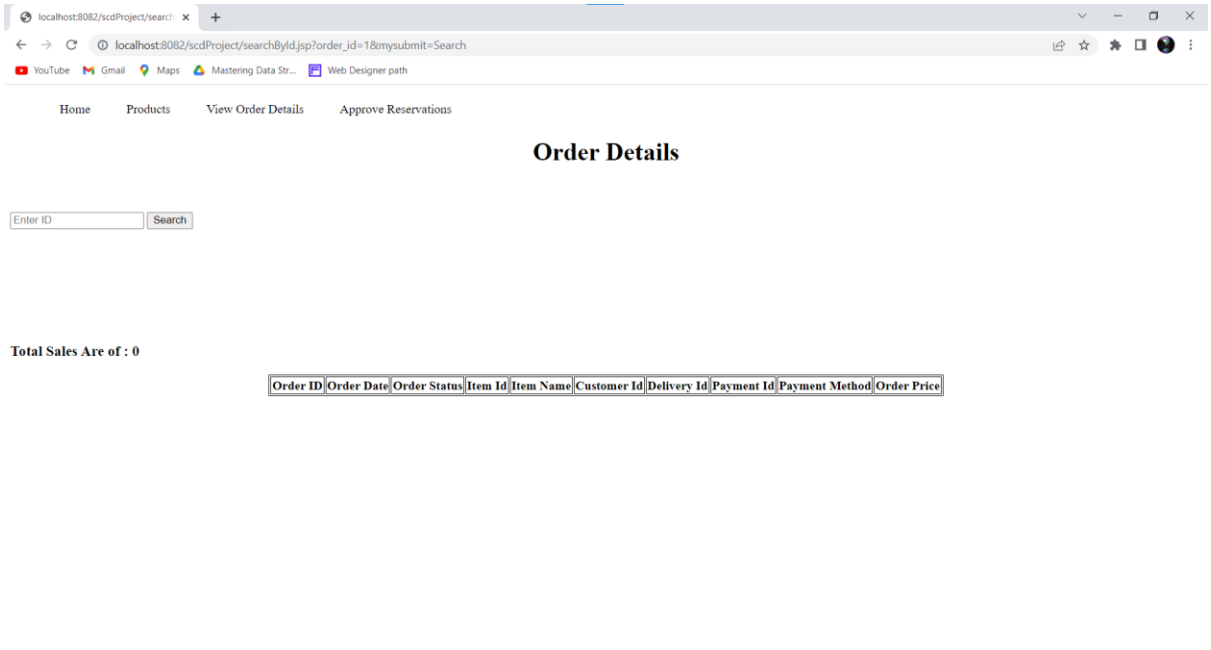
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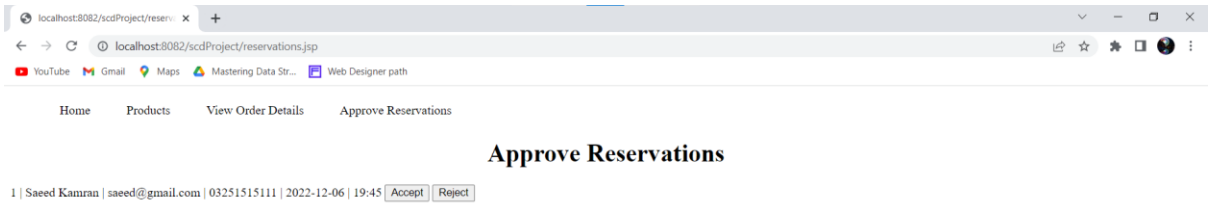
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Accept
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