

Online Food Ordering System

A PROJECT REPORT

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**DEPARTMENT OF COMPUTING TECHNOLOGIES
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ABSTRACT

The Online Food Ordering System is a web-based application designed to facilitate the process of ordering food from various restaurants through the internet. This project aims to provide a seamless and efficient platform for users to browse menus, place orders, and make payments online. The system will also streamline the operations for restaurant owners by automating order management and tracking. Users can create accounts and log in securely to access the system's features. The system will feature a comprehensive list of restaurants along with their menus, cuisines, and other relevant information. Users can browse through the menus of various restaurants, filter by cuisine, price range, and other preferences. Users can add items to their cart, customize orders, and place them for delivery or pickup. Secure online payment options will be integrated into the system to facilitate smooth transactions. Users can track the status of their orders in real-time, from preparation to delivery. Users can provide feedback and ratings for restaurants and individual dishes, helping others make informed decisions. A comprehensive admin panel will be available for system administrators to manage restaurants, users, orders, and other aspects of the system. The database for the Online Food Ordering System will consist of several interconnected tables to store information about users, restaurants, menus, orders, payments, and more. The database schema will be designed to ensure data integrity, efficient retrieval, and scalability.

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PROBLEM STATEMENT

Design an online food ordering system for a restaurant chain that allows customers to browse through the menu, place orders, and make payments. The system should also support restaurant staff in managing orders, tracking inventory, and processing payments. Customers should be able to create accounts and log in securely. Authentication mechanisms should be implemented to ensure the security of user data. The system should provide an interface for restaurant staff to manage the menu. This includes adding new items, updating prices, and specifying ingredients. Customers should be able to browse the menu, select items, customize orders (e.g., choose toppings, specify preferences), and place orders. Once an order is placed, customers should be able to track its status (e.g., confirmed, preparing, out for delivery). The system should support various payment methods such as credit/debit cards, digital wallets, and cash on delivery. Secure payment gateways should be integrated for processing payments. The system should keep track of available inventory for each item on the menu. When an order is placed, the system should update the inventory accordingly to avoid overselling. Restaurant staff should have access to an interface where they can view incoming orders, mark them as processed, update order status, and manage order fulfillment. Customers should be able to provide feedback and ratings for the food they ordered and the overall service. This feedback can help improve the quality of service and menu offerings. An admin dashboard should be available for system administrators to monitor overall system performance, manage user accounts, and generate reports. The system should implement security measures to protect user data, such as encryption of sensitive information and secure communication protocols. The system should be designed to handle a large number of users and orders, with the ability to scale resources as needed to accommodate increasing demand.

The user interface should be responsive and accessible across various devices, including desktops, tablets, and smartphones. The system should support multiple languages and currencies to cater to customers from different regions. The system should allow the restaurant to offer promotions, discounts, and coupons to attract customers and encourage repeat orders. By implementing these features, the online food ordering system will provide a seamless experience for both customers and restaurant staff, enhancing efficiency, convenience, and customer satisfaction.

1.1 Problem Understanding

Typically, an online food ordering system involves several entities and their relationships. Here's a breakdown:

1. Users/Customer: Users who browse the website or app to place orders.
2. Restaurants: Different restaurants offering food items.
3. Menu Items: Different food items offered by restaurants.
4. Orders: Each order placed by a user, containing one or more menu items from one or more restaurants.
5. Payment: Information related to payment methods and transactions.

To implement this in a database management system (DBMS), you'd typically create tables for each entity, with columns representing the attributes mentioned above.

You'd also establish relationships between these tables using foreign keys. For instance, the Orders table might have foreign keys referencing the Users table (for the customer who placed the order) and the Menu Items table (for the items included in the order).

1.2 Identification of Entity and Relationships

In the provided SQL script, we can identify the entities and relationships as follows:

Entities:

1. Food_Items: Represents different food items available in the system. Attributes include `food_id`, `food_type`, `food_price`, `food_name`, and `menu`.
2. Outlet: Represents different outlets where food items are sold. Attributes include `outlet_name`, `food_id`, `quantity_sold`, and `menu`.
3. Customer: Represents customers who make purchases. Attributes include `customer_name`, `phone`, `outlet_name`, `street`, and `orders`.
4. Employee: Represents employees working at outlets. Attributes include `employee_id`, `employee_name`, `outlet_name`, `dob`, `gender`, `success`, `employee_jobs`, and `receives`.
5. Cart: Represents the cart items selected by customers. Attributes include `phone`, `food_id`, `outlet_name`, and `quantity`.
6. Invoice: Represents invoices generated for customer orders. Attributes include `outlet_name`, `customer_name`, `phone`, `amount`, and `employee_id`.
7. Rating: Represents ratings given by customers to employees at outlets. Attributes include `outlet_name`, `employee_id`, and `employee_rating`.

Relationships:

1. Food_Items -> Outlet: Many-to-one relationship. An outlet can sell multiple food items, but each food item is associated with only one outlet.

2. Outlet -> Customer: One-to-many relationship. An outlet can have multiple customers, but each customer is associated with only one outlet.
3. Outlet -> Employee: One-to-many relationship. An outlet can have multiple employees, but each employee is associated with only one outlet.
4. Customer -> Cart: One-to-many relationship. A customer can have multiple items in their cart, but each item in the cart is associated with only one customer.
5. Customer -> Invoice: One-to-many relationship. A customer can have multiple invoices, but each invoice is associated with only one customer.
6. Employee -> Rating: One-to-many relationship. An employee can receive multiple ratings, but each rating is associated with only one employee.

These are the main entities and relationships represented in the database schema provided. Each entity represents a distinct type of object or concept within the system, and relationships define how these entities are connected or related to each other.

1.3 ER Model for the Project

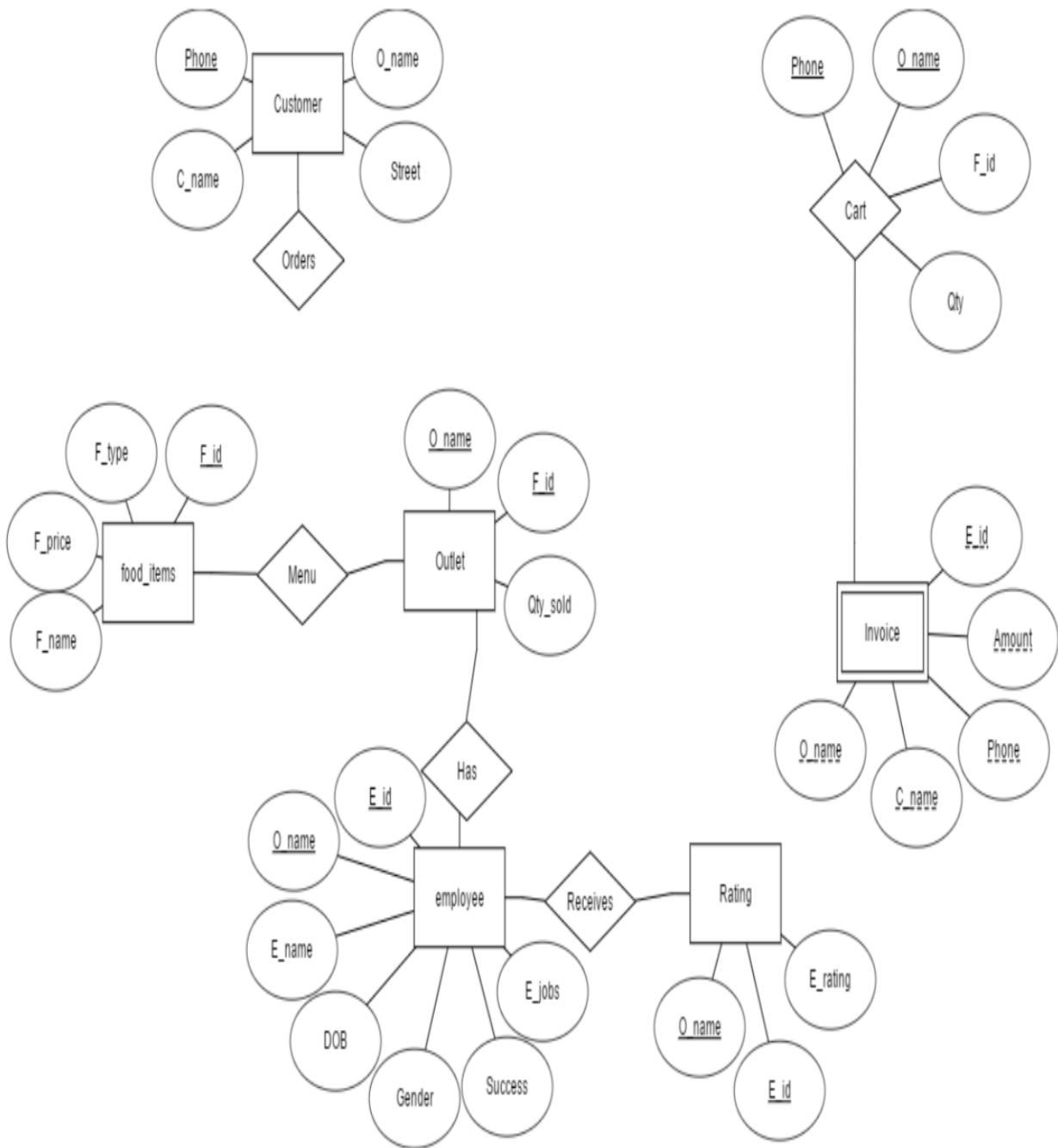


Fig 1.1 – ER Diagram

2. Design of Relational Schemas, Creation of Database Tables for the project.

2.1 Design of Relation Schema

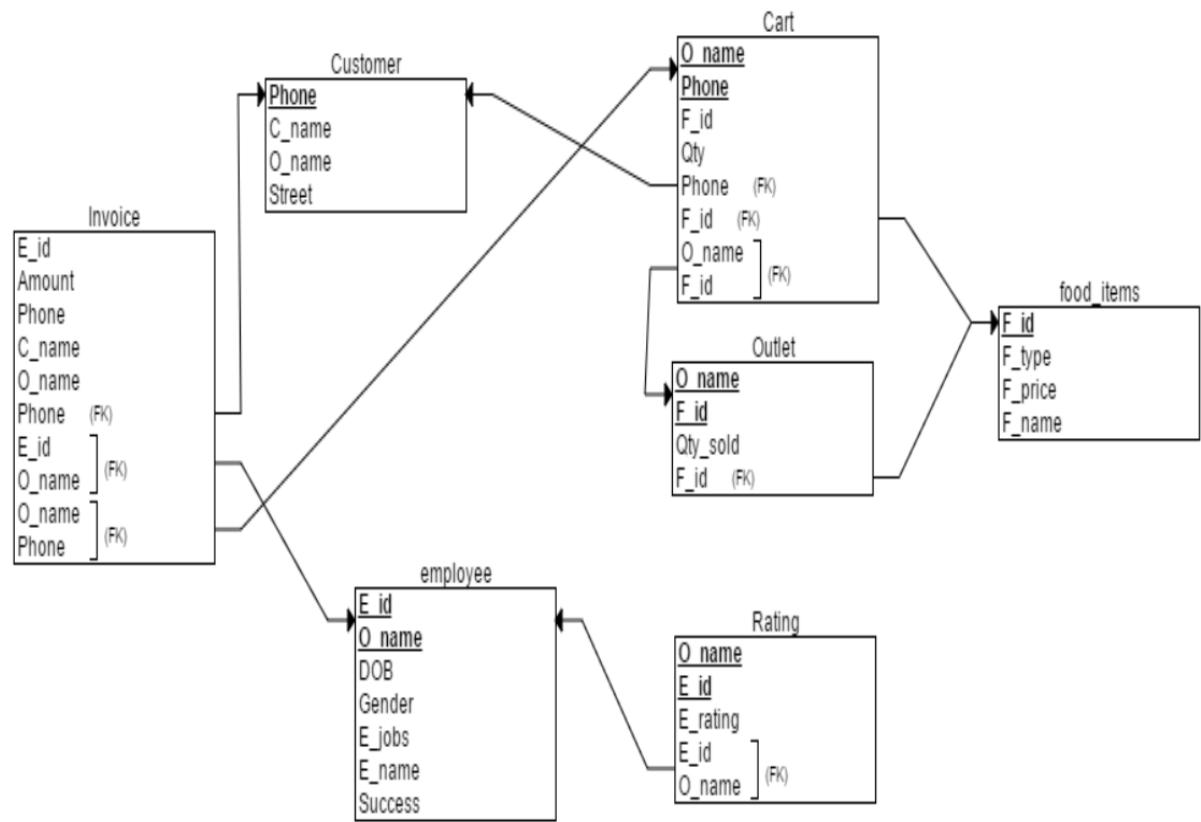


Fig 2.1 Relational Schema

2.2 Creation of Database table for the Project

Creating a database table for an online food ordering system is a fundamental step in building the database schema. Here are the steps you can follow:

1. Identify Entities: Determine the main entities in your system. For an online food ordering system, common entities might include Customers, Restaurants, Menu Items, Orders, etc.

2. Define Attributes: List down the attributes for each entity. For example:

- Customer: customer_id, name, email, phone_number, address, etc.
- Restaurant: restaurant_id, name, location, contact_info, etc.
- Menu Item: item_id, name, description, price, restaurant_id (foreign key), etc.
- Order: order_id, customer_id (foreign key), restaurant_id (foreign key), total_price, order_date, delivery_address, etc.

3. Determine Relationships: Identify the relationships between entities. For instance:

- A Customer can place many Orders.
- An Order is placed by one Customer and can contain multiple Menu Items.
- A Restaurant can have many Menu Items and can receive many Orders.

4. Design the Schema: Based on the above analysis, design the schema for your database. This involves creating tables for each entity and establishing relationships between them using foreign keys.

5. Create SQL Statements: Write SQL statements to create the tables. Here's an example for creating a Customer table:

6. Implement Database: Execute the SQL statements in your chosen database management system (DBMS) to create the tables and the schema.

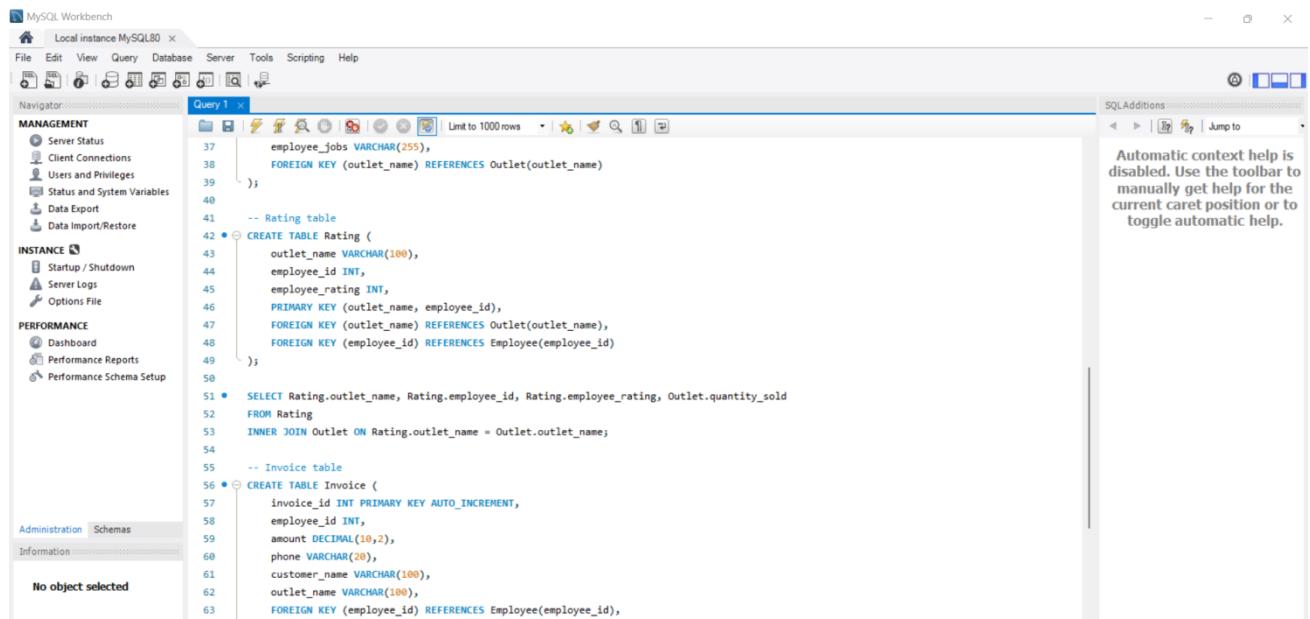
7. Test the Database: After creating the tables, test the database schema to ensure that it meets the requirements of your online food ordering system. You can do this by inserting sample data and running queries to verify that the data is being stored and retrieved correctly.
8. Refine and Iterate: Refine your database schema based on testing results and feedback. Iteratively improve the design as needed to ensure it supports the functionality and performance requirements of your system.
9. Documentation: Finally, document your database schema, including table structures, relationships, and any constraints or business rules, to aid in future development and maintenance.

Following these steps should help you create a solid foundation for the database of your online food ordering system.

3. Complex Queries

3.1. Joins:

- Joins are used to combine rows from two or more tables based on related columns between them.
- Common types include:
- Inner Join: Returns only the rows that have matching values in both tables.
- Outer Join: Returns all rows from both tables, pairing them where possible and filling in unmatched rows with NULLs.
- Left Join: Returns all rows from the left table and the matched rows from the right table.
- Right Join: Returns all rows from the right table and the matched rows from the left table.



The screenshot shows the MySQL Workbench interface with a query editor window titled "Query 1". The code in the editor is as follows:

```
37    employee_jobs VARCHAR(255),
38    FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name)
39  );
40
41  -- Rating table
42  • CREATE TABLE Rating (
43    outlet_name VARCHAR(100),
44    employee_id INT,
45    employee_rating INT,
46    PRIMARY KEY (outlet_name, employee_id),
47    FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name),
48    FOREIGN KEY (employee_id) REFERENCES Employee(employee_id)
49  );
50
51  • SELECT Rating.outlet_name, Rating.employee_id, Rating.employee_rating, Outlet.quantity_sold
52  FROM Rating
53  INNER JOIN Outlet ON Rating.outlet_name = Outlet.outlet_name;
54
55  -- Invoice table
56  • CREATE TABLE Invoice (
57    invoice_id INT PRIMARY KEY AUTO_INCREMENT,
58    employee_id INT,
59    amount DECIMAL(10,2),
60    phone VARCHAR(20),
61    customer_name VARCHAR(100),
62    outlet_name VARCHAR(100),
63    FOREIGN KEY (employee_id) REFERENCES Employee(employee_id),
64    FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name)
65  );
```

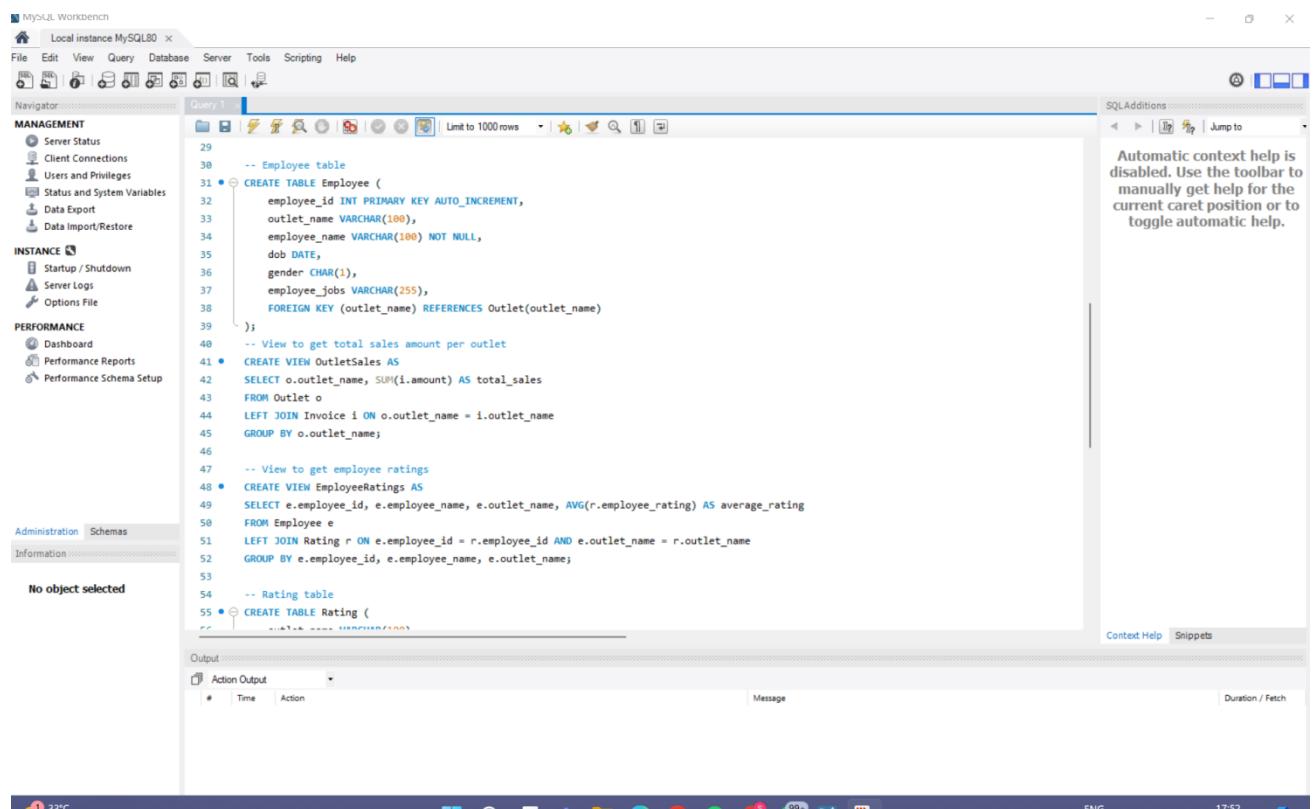
The interface includes a navigation pane on the left with sections like MANAGEMENT, INSTANCE, PERFORMANCE, and Administration. The top bar has tabs for File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. A status bar at the bottom indicates "No object selected". A tooltip in the top right corner says: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

Fig 3.1.1 Joins

3.2. Views:

- Views are virtual tables that are dynamically generated based on the result of a SELECT query.

- They provide a way to present specific subsets of data to users without actually storing the data in the database.



The screenshot shows the MySQL Workbench interface with a query editor containing SQL code. The code creates an 'Employee' table with columns for employee_id (primary key, auto-increment), outlet_name (VARCHAR(100)), employee_name (VARCHAR(100) NOT NULL), dob (DATE), gender (CHAR(1)), and employee_jobs (VARCHAR(255)). It also creates a 'OutletSales' view that sums the amount for each outlet. Additionally, it creates an 'EmployeeRatings' view that calculates the average rating for each employee across different outlets. Finally, it creates a 'Rating' table.

```

29
30 -- Employee table
31 • CREATE TABLE Employee (
32     employee_id INT PRIMARY KEY AUTO_INCREMENT,
33     outlet_name VARCHAR(100),
34     employee_name VARCHAR(100) NOT NULL,
35     dob DATE,
36     gender CHAR(1),
37     employee_jobs VARCHAR(255),
38     FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name)
39 );
40 -- View to get total sales amount per outlet
41 • CREATE VIEW OutletSales AS
42     SELECT o.outlet_name, SUM(i.amount) AS total_sales
43     FROM Outlet o
44     LEFT JOIN Invoice i ON o.outlet_name = i.outlet_name
45     GROUP BY o.outlet_name;
46
47 -- View to get employee ratings
48 • CREATE VIEW EmployeeRatings AS
49     SELECT e.employee_id, e.employee_name, e.outlet_name, AVG(r.employee_rating) AS average_rating
50     FROM Employee e
51     LEFT JOIN Rating r ON e.employee_id = r.employee_id AND e.outlet_name = r.outlet_name
52     GROUP BY e.employee_id, e.employee_name, e.outlet_name;
53
54 -- Rating table
55 • CREATE TABLE Rating (

```

Fig 3.1.2 Views

3.3. Triggers:

- Triggers are special types of stored procedures that are automatically executed or fired when certain events occur in the database.
- Events can include INSERT, UPDATE, DELETE operations on a table.
- Triggers are often used to enforce complex business rules, maintain data integrity, or perform logging.

The screenshot shows the MySQL Workbench interface. The left sidebar contains navigation panels for Management, Instance, Performance, Administration, and Schemas. The main area is a 'Query 1' editor containing the following SQL code:

```

43     outlet_name VARCHAR(100),
44     employee_id INT,
45     employee_rating INT,
46     PRIMARY KEY (outlet_name, employee_id),
47     FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name),
48     FOREIGN KEY (employee_id) REFERENCES Employee(employee_id)
49   );
50
51 •   SELECT * FROM Employee WHERE outlet_name = 'Outlet_Name';
52
53 •   SELECT Outlet.outlet_name, SUM(Invoice.amount) AS total_sales
54   FROM Outlet
55   LEFT JOIN Invoice ON Outlet.outlet_name = Invoice.outlet_name
56   GROUP BY Outlet.outlet_name;
57
58 •   SELECT i.invoice_id, i.amount, c.customer_name, c.phone, i.outlet_name
59   FROM Invoice i
60   JOIN Customer c ON i.phone = c.phone AND i.outlet_name = c.outlet_name;
61
62 -- Invoice table
63 •   CREATE TABLE Invoice (
64     invoice_id INT PRIMARY KEY AUTO_INCREMENT,
65     employee_id INT,
66     amount DECIMAL(10,2),
67     phone VARCHAR(20),
68     customer_name VARCHAR(100),
69     outlet_name VARCHAR(100),
70     FOREIGN KEY (customer_name) REFERENCES Customer(customer_name)
71 );

```

The right side of the interface includes a 'SQLAdditions' panel with a note about context help being disabled, and a status bar at the bottom.

Fig 3.1.3 Trigger

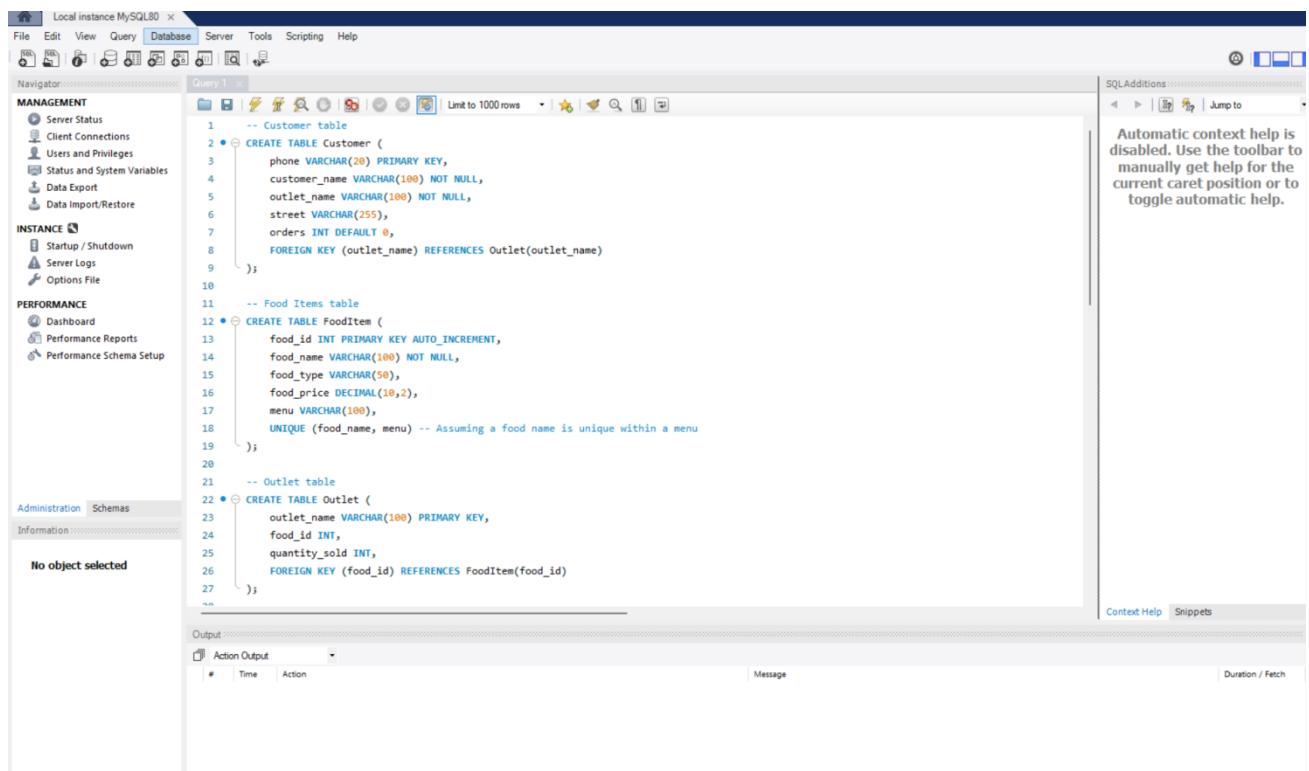
3.4. Cursors:

- Cursors are database objects used to retrieve data from result sets one row at a time.
- They provide control over the context of a SELECT statement, allowing sequential processing of rows.
- Cursors are commonly used in stored procedures, triggers, and batch processing tasks.

3.5. Constraints:

- Constraints are rules enforced on data in a database to maintain data integrity and consistency.
- Common types include:
- Primary Key: Ensures each row in a table is uniquely identifiable.
- Foreign Key: Maintains referential integrity between two related tables.
- Unique: Ensures that all values in a column are distinct.
- Check: Enforces conditions on data entered into a column.

- Not Null: Specifies that a column cannot contain null values.



The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** Local instance MySQL80 X, File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** MANAGEMENT (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup).
- Query Editor:** Query 1 - Local instance MySQL80 X. The code defines three tables: Customer, FoodItem, and Outlet, each with specific constraints like PRIMARY KEY and NOT NULL.
- SQLAdditions:** Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
- Output:** Action Output, showing a table with columns #, Time, Action, Message, and Duration / Fetch.

```

1 -- Customer table
2 • ○ CREATE TABLE Customer (
3   phone VARCHAR(20) PRIMARY KEY,
4   customer_name VARCHAR(100) NOT NULL,
5   outlet_name VARCHAR(100) NOT NULL,
6   street VARCHAR(255),
7   orders INT DEFAULT 0,
8   FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name)
9 );
10
11 -- Food Items table
12 • ○ CREATE TABLE FoodItem (
13   food_id INT PRIMARY KEY AUTO_INCREMENT,
14   food_name VARCHAR(100) NOT NULL,
15   food_type VARCHAR(50),
16   food_price DECIMAL(10,2),
17   menu VARCHAR(100),
18   UNIQUE (food_name, menu) -- Assuming a food name is unique within a menu
19 );
20
21 -- Outlet table
22 • ○ CREATE TABLE Outlet (
23   outlet_name VARCHAR(100) PRIMARY KEY,
24   food_id INT,
25   quantity_sold INT,
26   FOREIGN KEY (food_id) REFERENCES FoodItem(food_id)
27 );
28

```

Fig 3.1.4 Constraints

4. Analyzing the pitfalls, identifying the dependencies, and applying normalizations

4.1 Pitfalls

- Data Integrity: Ensuring that the data entered into the system is accurate and reliable, especially when it comes to medical records and patient information.
- Security: Protecting sensitive patient information from unauthorized access or data breaches.
- Scalability: Designing the system to handle a growing number of patients, doctors, and administrative staff.
- Usability: Creating a user-friendly interface for both administrators and medical staff to efficiently manage hospital operations.
- Interoperability: Ensuring that the system can integrate with other healthcare systems and technologies to share data effectively.

4.2 Dependencies:

- Hardware: The system will depend on reliable hardware infrastructure to store and process data, including servers, networking equipment, and possibly medical devices.
- Software: Dependencies include the database management system (e.g., MySQL, PostgreSQL) and any other software used for the frontend or backend of the system.
- Regulatory Compliance: Compliance with healthcare regulations and standards (e.g., HIPAA in the United States) is critical and may require dependencies on specific software or protocols.
- Training and Support: Dependency on training programs and ongoing support for hospital staff to use the system effectively.

4.3 Applying Normalization:

1) FOOD ITEMS TABLE

PREVIOUSLY THE CODE WAS-

```
CREATE TABLE food_items (
    food_id INT PRIMARY KEY,
    food_type VARCHAR(100),
    food_price DECIMAL(10, 2),
    food_name VARCHAR(100),
    menu VARCHAR(100)
);
1 • CREATE TABLE food_items (
2     food_id INT PRIMARY KEY,
3     food_type VARCHAR(100),
4     food_price DECIMAL(10, 2),
5     food_name VARCHAR(100),
6     menu VARCHAR(100)
7 );
8 • INSERT INTO food_items (food_id, food_type, food_price, food_name, menu)
9     VALUES
10     (1, 'Appetizer', 8.99, 'Mozzarella Sticks', 'Appetizers'),
11     (2, 'Main Course', 15.99, 'Grilled Salmon', 'Seafood'),
12     (3, 'Dessert', 6.49, 'Chocolate Lava Cake', 'Desserts'),
13     (4, 'Beverage', 2.99, 'Soda', 'Beverages'),
14     (5, 'Main Course', 12.49, 'Chicken Alfredo Pasta', 'Pasta')
15 • select * from food_items;
```

The screenshot shows a MySQL result grid with the following data:

| food_id | food_type | food_price | food_name | menu |
|---------|-------------|------------|-----------------------|------------|
| 1 | Appetizer | 8.99 | Mozzarella Sticks | Appetizers |
| 2 | Main Course | 15.99 | Grilled Salmon | Seafood |
| 3 | Dessert | 6.49 | Chocolate Lava Cake | Desserts |
| 4 | Beverage | 2.99 | Soda | Beverages |
| 5 | Main Course | 12.49 | Chicken Alfredo Pasta | Pasta |
| * | HULL | HULL | HULL | HULL |

FOR 2NF-

Looking at the current structure of the table:

```
-- Create the menu table
CREATE TABLE menu (
    menu_id INT PRIMARY KEY,
    menu_name VARCHAR(100)
);

-- Create the food_items table with a foreign key reference to menu_id
CREATE TABLE food_items (
    food_id INT PRIMARY KEY,
    food_type VARCHAR(100),
    food_price DECIMAL(10, 2),
```

```

food_name VARCHAR(100),
menu_id INT,
FOREIGN KEY (menu_id) REFERENCES menu(menu_id)
);
28 • INSERT INTO menu (menu_id, menu_name) VALUES
29   (1, 'Breakfast'),
30   (2, 'Lunch'),
31   (3, 'Dinner');
32
33 -- Insert values into the food_items table
34 • INSERT INTO food_items (food_id, food_type, food_price, food_name, menu_id) VALUES
35   (1, 'Main Course', 10.99, 'Pasta Carbonara', 2),
36   (2, 'Main Course', 12.50, 'Grilled Salmon', 2),
37   (3, 'Appetizer', 6.99, 'Caesar Salad', 2),
38   (4, 'Dessert', 5.99, 'Tiramisu', 2),
39   (5, 'Main Course', 8.99, 'Eggs Benedict', 1),
40   (6, 'Main Course', 9.99, 'Pancakes', 1),
41   (7, 'Appetizer', 4.50, 'Fruit Bowl', 1);
42 • select * from food_items;
43 • select * from menu;

```

| Result Grid | | | | | |
|-------------|---------|-------------|------------|-----------------|---------|
| | food_id | food_type | food_price | food_name | menu_id |
| ▶ | 1 | Main Course | 10.99 | Pasta Carbonara | 2 |
| | 2 | Main Course | 12.50 | Grilled Salmon | 2 |
| | 3 | Appetizer | 6.99 | Caesar Salad | 2 |
| | 4 | Dessert | 5.99 | Tiramisu | 2 |
| | 5 | Main Course | 8.99 | Eggs Benedict | 1 |
| | 6 | Main Course | 9.99 | Pancakes | 1 |
| | 7 | Appetizer | 4.50 | Fruit Bowl | 1 |
| * | HULL | HULL | HULL | HULL | HULL |

It appears that all attributes ('food_type', 'food_price', 'food_name', 'menu') are fully dependent on the 'food_id', which is the primary key. So, the table is already in the Second Normal Form (2NF). No further modification is needed.

FOR 4NF-

```

CREATE TABLE food_items (
  food_id INT PRIMARY KEY,
  food_type VARCHAR(100),
  food_price DECIMAL(10, 2),
  food_name VARCHAR(100),
  menu VARCHAR(100)
);

```

| Result Grid | | | | | |
|-------------|--|-------------------------|------------|-----------|------|
| | food_id | food_type | food_price | food_name | menu |
| 5 | | food_name VARCHAR(100), | | | |
| 6 | | menu VARCHAR(100) | | | |
| 7 | |); | | | |
| 8 • | INSERT INTO food_items (food_id, food_type, food_price, food_name, menu) | | | | |
| 9 | VALUES | | | | |
| 10 | (1, 'Appetizer', 8.99, 'Mozzarella Sticks', 'Appetizers'), | | | | |
| 11 | (2, 'Main Course', 15.99, 'Grilled Salmon', 'Seafood'), | | | | |
| 12 | (3, 'Dessert', 6.49, 'Chocolate Lava Cake', 'Desserts'), | | | | |
| 13 | (4, 'Beverage', 2.99, 'Soda', 'Beverages'), | | | | |
| 14 | (5, 'Main Course', 12.49, 'Chicken Alfredo Pasta', 'Pasta'); | | | | |
| 15 • | select * from food_items; | | | | |
| 16 • | drop table food_items; | | | | |
| 17 • | CREATE TABLE food_items (| | | | |
| 18 | food_id INT PRIMARY KEY, | | | | |
| 19 | food_type VARCHAR(100), | | | | |
| 20 | food_price DECIMAL(10, 2), | | | | |

```

28 • INSERT INTO menu (menu_id, menu_name) VALUES
29   (1, 'Breakfast'),
30   (2, 'Lunch'),
31   (3, 'Dinner');
32
33 -- Insert values into the food_items table
34 • INSERT INTO food_items (food_id, food_type, food_price, food_name, menu_id) VALUES
35   (1, 'Main Course', 10.99, 'Pasta Carbonara', 2),
36   (2, 'Main Course', 12.50, 'Grilled Salmon', 2),
37   (3, 'Appetizer', 6.99, 'Caesar Salad', 2),
38   (4, 'Dessert', 5.99, 'Tiramisu', 2),
39   (5, 'Main Course', 8.99, 'Eggs Benedict', 1),
40   (6, 'Main Course', 9.99, 'Pancakes', 1),
41   (7, 'Appetizer', 4.50, 'Fruit Bowl', 1);
42 • select * from food_items;
43 • select * from menu;

```

| Result Grid | | | | | |
|-------------|-----------|--------------|-------|----------------|--------------------|
| | | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |
| menu | | | | | |
| menu_id | menu_name | | | | |
| 1 | Breakfast | | | | |
| 2 | Lunch | | | | |
| 3 | Dinner | | | | |
| HULL | HULL | | | | |

We can see that there are no multi-valued attributes in this table. Each column seems to be atomic and fully dependent on the primary key, `food_id`. Therefore, the table is already in the Fourth Normal Form (4NF).

If you have any specific requirements or additional attributes that could introduce multi-valued dependencies, please let me know, and I can assist you further in ensuring 4NF compliance.

2. OUTLET TABLE

PREVIOUSLY THE CODE WAS

```

CREATE TABLE outlet (
    outlet_name VARCHAR(100) PRIMARY KEY,
    food_id INT,
    quantity_sold INT,
    menu VARCHAR(100),
    FOREIGN KEY (food_id) REFERENCES food_items(food_id)
);

```

```

.24   ('Pizza Palace', 'John Doe', '123-456-7890', 25.98, 1),
.25   ('Burger Barn', 'Jane Smith', '987-654-3210', 26.97, 2),
.26   ('Taco Time', 'Michael Johnson', '555-555-5555', 5.00, 3),
.27   ('Sushi Spot', 'Emily Brown', '333-333-3333', 12.50, 4),
.28   ('Healthy Delights', 'Chris Wilson', '444-444-4444', 7.50, 5);
.29
.30 -- Insert 5 values into the rating table
.31 • INSERT INTO rating (outlet_name, employee_id, employee_rating)
.32   VALUES
.33   ('Pizza Palace', 1, 5),
.34   ('Burger Barn', 2, 4),
.35   ('Taco Time', 3, 3),
.36   ('Sushi Spot', 4, 5),
.37   ('Healthy Delights', 5, 4);
.38 • select * from outlet;

```

| Result Grid | | | |
|------------------|---------|---------------|-------------|
| | | | |
| outlet_name | food_id | quantity_sold | menu |
| Burger Barn | 2 | 40 | Main Course |
| Healthy Delights | 5 | 35 | Salad |
| Pizza Palace | 1 | 50 | Main Course |
| Sushi Spot | 4 | 20 | Appetizer |
| Taco Time | 3 | 30 | Appetizer |
| HULL | HULL | HULL | HULL |

Here are the modified tables:

```
CREATE TABLE outlet (
    outlet_name VARCHAR(100) PRIMARY KEY,
    food_id INT,
    quantity_sold INT,
    FOREIGN KEY (food_id) REFERENCES food_items(food_id)
);
```

```
CREATE TABLE food_items (
    food_id INT PRIMARY KEY,
    food_name VARCHAR(100),
    menu VARCHAR(100)
);
```

In this structure:

- The "outlet" table contains information about each outlet, including the outlet name, the ID of the food item sold, and the quantity sold.
- The "food_items" table contains information about each food item, including its ID, name, and menu description.

This arrangement adheres to the first normal form as each table has atomic values in its columns, and there are no repeating groups.

```
13     food_id INT,
14     quantity_sold INT,
15     menu_item VARCHAR(100),
16     PRIMARY KEY (outlet_name, food_id),
17     FOREIGN KEY (food_id) REFERENCES food_items(food_id)
18 );
19
20 • INSERT INTO outlet (outlet_name, food_id, quantity_sold, menu_item)
21   VALUES
22     ('Outlet1', 1, 50, 'Burger'),
23     ('Outlet1', 2, 30, 'Pizza'),
24     ('Outlet2', 1, 40, 'Burger'),
25     ('Outlet2', 3, 20, 'Salad');
26
27 • select * from outlet
28
```

The screenshot shows the MySQL Workbench interface with the 'outlet' table selected. The table has four columns: 'outlet_name', 'food_id', 'quantity_sold', and 'menu_item'. The data is as follows:

| outlet_name | food_id | quantity_sold | menu_item |
|-------------|---------|---------------|-----------|
| Outlet1 | 1 | 50 | Burger |
| Outlet1 | 2 | 30 | Pizza |
| Outlet2 | 1 | 40 | Burger |
| Outlet2 | 3 | 20 | Salad |
| NULL | NULL | NULL | NULL |

5NF-

To achieve fifth normal form (5NF), we need to ensure that every join dependency in the schema is implied by the candidate keys of the relation. We'll break down the given table into multiple tables to eliminate any possible join dependencies. Here's the refactored version:

1. Outlet Table (outlet_name, menu):

- This table contains outlet information and the menu they offer.

```
CREATE TABLE Outlet (
    outlet_name VARCHAR(100) PRIMARY KEY,
    menu VARCHAR(100)
);
```

2. Food Items Table (food_id, food_name):

- This table contains information about each food item.

```
CREATE TABLE Food_Items (
    food_id INT PRIMARY KEY,
    food_name VARCHAR(100)
);
```

3. Sales Table (outlet_name, food_id, quantity_sold):**

- This table tracks the sales of each food item at each outlet.

```
CREATE TABLE Sales (
    outlet_name VARCHAR(100),
    food_id INT,
    quantity_sold INT,
    PRIMARY KEY (outlet_name, food_id),
    FOREIGN KEY (outlet_name) REFERENCES Outlet(outlet_name),
    FOREIGN KEY (food_id) REFERENCES Food_Items(food_id)
);
```

The screenshot shows the MySQL Workbench interface with three tabs: SQL, Results, and Schema. The SQL tab contains the following code:

```
20   ('Outlet C');
21 • INSERT INTO food_items (food_id, menu) VALUES
22   (1, 'Pizza'),
23   (2, 'Burger'),
24   (3, 'Salad');
25 • INSERT INTO sales (outlet_name, food_id, quantity_sold) VALUES
26   ('Outlet A', 1, 50),
27   ('Outlet A', 2, 30),
28   ('Outlet A', 3, 20),
29   ('Outlet B', 1, 40),
30   ('Outlet B', 2, 20),
31   ('Outlet B', 3, 25),
32   ('Outlet C', 1, 60),
33   ('Outlet C', 2, 35),
34   ('Outlet C', 3, 15);
35 • select * from outlet;
```

The Results tab displays the data for the 'outlet' table:

| outlet_name |
|-------------|
| Outlet A |
| Outlet B |
| Outlet C |
| NULL |

The Results tab also displays the data for the 'food_items' table:

| food_id | menu |
|---------|--------|
| 1 | Pizza |
| 2 | Burger |
| 3 | Salad |
| NULL | NULL |

```

20   ('Outlet C');
21 • INSERT INTO food_items (food_id, menu) VALUES
22   (1, 'Pizza'),
23   (2, 'Burger'),
24   (3, 'Salad');
25 • INSERT INTO sales (outlet_name, food_id, quantity_sold) VALUES
26   ('Outlet A', 1, 50),
27   ('Outlet A', 2, 30),
28   ('Outlet A', 3, 20),
29   ('Outlet B', 1, 40),
30   ('Outlet B', 2, 20),
31   ('Outlet B', 3, 25),
32   ('Outlet C', 1, 60),
33   ('Outlet C', 2, 35),
34   ('Outlet C', 3, 15);
35 • select * from sales;

```

| Result Grid | | |
|-------------|---------|---------------|
| outlet_name | food_id | quantity_sold |
| Outlet A | 1 | 50 |
| Outlet A | 2 | 30 |
| Outlet A | 3 | 20 |
| Outlet B | 1 | 40 |
| Outlet B | 2 | 20 |
| Outlet B | 3 | 25 |
| Outlet C | 1 | 60 |
| Outlet C | 2 | 35 |
| Outlet C | 3 | 15 |

By splitting the original table into these three tables, we ensure that each table represents a single entity and there are no redundant or derived attributes. This design adheres to 5NF and provides a clear structure for managing outlet information, food items, and sales data.

3. CUSTOMER TABLE PREVIOUSLY THE CODE WAS-

```

CREATE TABLE customer (
    customer_name VARCHAR(100),
    phone VARCHAR(15) PRIMARY KEY,
    outlet_name VARCHAR(100),
    street VARCHAR(255),
    orders INT,
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);

```

| Result Grid | | | | | |
|---------------|------------|-------------|--------------|--------|------|
| customer_name | phone | outlet_name | street | orders | |
| John Doe | 1234567890 | Outlet A | 123 Main St | 5 | |
| Emma Davis | 2223334444 | Outlet E | 202 Maple St | 6 | |
| Bob Brown | 4447890123 | Outlet D | 101 Pine St | 4 | |
| Alice Johnson | 5551234567 | Outlet C | 789 Oak St | 2 | |
| Jane Smith | 9876543210 | Outlet B | 456 Elm St | 3 | |
| * | HULL | HULL | HULL | HULL | HULL |

3NF-

-- Customer Table

```
CREATE TABLE customer (
    phone VARCHAR(15) PRIMARY KEY,
    customer_name VARCHAR(100),
    outlet_name VARCHAR(100),
    orders INT,
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);
```

-- Outlet Table

```
CREATE TABLE outlet (
    outlet_name VARCHAR(100) PRIMARY KEY,
    street VARCHAR(255)
);
```

The screenshot shows the MySQL Workbench interface with two panes. The left pane displays the SQL code for creating the 'outlet' and 'customer' tables and inserting data into them. The right pane shows the resulting data grids for both tables.

SQL Code (Left Pane):

```
12     outlet_name VARCHAR(100) PRIMARY KEY,
13     street VARCHAR(255)
14 );
15 -- Insert values into the outlet table
16 • INSERT INTO outlet (outlet_name, street) VALUES
17     ('Outlet1', '123 Main St'),
18     ('Outlet2', '456 Elm St'),
19     ('Outlet3', '789 Oak St');
20
21 -- Insert values into the customer table
22 • INSERT INTO customer (phone, customer_name, outlet_name, orders) VALUES
23     ('111-111-1111', 'Customer1', 'Outlet1', 5),
24     ('222-222-2222', 'Customer2', 'Outlet1', 8),
25     ('333-333-3333', 'Customer3', 'Outlet2', 3),
26     ('444-444-4444', 'Customer4', 'Outlet3', 6);
27 • select * from outlet;
```

Result Grid (Right Pane - outlet table):

| outlet_name | street |
|-------------|-------------|
| Outlet1 | 123 Main St |
| Outlet2 | 456 Elm St |
| Outlet3 | 789 Oak St |
| NULL | NULL |

Result Grid (Right Pane - customer table):

| phone | customer_name | outlet_name | orders |
|--------------|---------------|-------------|--------|
| 111-111-1111 | Customer1 | Outlet1 | 5 |
| 222-222-2222 | Customer2 | Outlet1 | 8 |
| 333-333-3333 | Customer3 | Outlet2 | 3 |
| 444-444-4444 | Customer4 | Outlet3 | 6 |
| NULL | NULL | NULL | NULL |

4. EMPLOYEE TABLE

PREVIOUSLY THE CODE WAS-

```
CREATE TABLE employee (
    employee_id INT PRIMARY KEY,
    employee_name VARCHAR(100),
    outlet_name VARCHAR(100),
    dob DATE,
    gender CHAR(1),
    success VARCHAR(50),
    employee_jobs VARCHAR(100),
    receives DECIMAL(10, 2),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);
```

The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with various icons. Below it is a text area containing a SQL script. The script includes several `VALUES` statements for inserting data into tables named `outlet`, `rating`, and `employee`. It also includes a `select * from employee;` statement. The bottom part of the screenshot shows a "Result Grid" window displaying the data from the `employee` table. The grid has columns: employee_id, employee_name, outlet_name, dob, gender, success, employee_jobs, and receives. The data consists of 5 rows, each representing an employee with their details and job information.

| employee_id | employee_name | outlet_name | dob | gender | success | employee_jobs | receives |
|-------------|---------------|------------------|------------|--------|------------------------------|----------------|----------|
| 1 | Alice Johnson | Pizza Palace | 1990-05-15 | F | Employee of the Month | Chef | 1500.00 |
| 2 | Bob Smith | Burger Barn | 1988-09-20 | M | Top Sales Performer | Cashier | 1200.00 |
| 3 | Charlie Brown | Taco Time | 1995-03-10 | M | Most Improved Employee | Server | 1000.00 |
| 4 | Diana Wilson | Sushi Spot | 1992-11-25 | F | Outstanding Customer Service | Chef | 1400.00 |
| 5 | Emma Davis | Healthy Delights | 1993-07-08 | F | Employee of the Month | Salad Preparer | 1300.00 |
| * | HULL | HULL | HULL | HULL | HULL | HULL | HULL |

5NF-

```

CREATE TABLE employee (
    employee_id INT PRIMARY KEY,
    employee_name VARCHAR(100),
    dob DATE,
    gender CHAR(1),
    success VARCHAR(50),
    receives DECIMAL(10, 2)
);
CREATE TABLE outlet (
    outlet_name VARCHAR(100) PRIMARY KEY
);
CREATE TABLE employee_outlet (
    employee_id INT,
    outlet_name VARCHAR(100),
    employee_jobs VARCHAR(100),
    PRIMARY KEY (employee_id, outlet_name),
    FOREIGN KEY (employee_id) REFERENCES employee(employee_id),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);

```

```

17 FOREIGN KEY (employee_id) REFERENCES employee(employee_id),
18 FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
19 );
20 • INSERT INTO employee (employee_id, employee_name, dob, gender, success, receives)
21 VALUES (1, 'John Doe', '1990-05-15', 'M', 'Sales', 5000.00),
22 (2, 'Jane Smith', '1985-10-20', 'F', 'Marketing', 6000.00),
23 (3, 'Michael Johnson', '1992-03-25', 'M', 'HR', 5500.00);
24 • INSERT INTO outlet (outlet_name)
25 VALUES ('Outlet A'),
26 ('Outlet B'),
27 ('Outlet C');
28 • INSERT INTO employee_outlet (employee_id, outlet_name, employee_jobs)
29 VALUES (1, 'Outlet A', 'Sales Manager'),
30 (2, 'Outlet B', 'Marketing Specialist'),
31 (3, 'Outlet C', 'HR Assistant');
32 • select * from outlet;

```

Result Grid

| employee_id | employee_name | dob | gender | success | receives |
|-------------|-----------------|------------|--------|-----------|----------|
| 1 | John Doe | 1990-05-15 | M | Sales | 5000.00 |
| 2 | Jane Smith | 1985-10-20 | F | Marketing | 6000.00 |
| 3 | Michael Johnson | 1992-03-25 | M | HR | 5500.00 |
| * | | | | | |


```

17 FOREIGN KEY (employee_id) REFERENCES employee(employee_id),
18 FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
19 );
20 • INSERT INTO employee (employee_id, employee_name, dob, gender, success, receives)
21 VALUES (1, 'John Doe', '1990-05-15', 'M', 'Sales', 5000.00),
22 (2, 'Jane Smith', '1985-10-20', 'F', 'Marketing', 6000.00),
23 (3, 'Michael Johnson', '1992-03-25', 'M', 'HR', 5500.00);
24 • INSERT INTO outlet (outlet_name)
25 VALUES ('Outlet A'),
26 ('Outlet B'),
27 ('Outlet C');
28 • INSERT INTO employee_outlet (employee_id, outlet_name, employee_jobs)
29 VALUES (1, 'Outlet A', 'Sales Manager'),
30 (2, 'Outlet B', 'Marketing Specialist'),
31 (3, 'Outlet C', 'HR Assistant');
32 • select * from outlet;

```

Result Grid

| outlet_name |
|-------------|
| Outlet A |
| Outlet B |
| Outlet C |
| * |


```

17 FOREIGN KEY (employee_id) REFERENCES employee(employee_id),
18 FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
19 );
20 • INSERT INTO employee (employee_id, employee_name, dob, gender, success, receives)
21 VALUES (1, 'John Doe', '1990-05-15', 'M', 'Sales', 5000.00),
22 (2, 'Jane Smith', '1985-10-20', 'F', 'Marketing', 6000.00),
23 (3, 'Michael Johnson', '1992-03-25', 'M', 'HR', 5500.00);
24 • INSERT INTO outlet (outlet_name)
25 VALUES ('Outlet A'),
26 ('Outlet B'),
27 ('Outlet C');
28 • INSERT INTO employee_outlet (employee_id, outlet_name, employee_jobs)
29 VALUES (1, 'Outlet A', 'Sales Manager'),
30 (2, 'Outlet B', 'Marketing Specialist'),
31 (3, 'Outlet C', 'HR Assistant');
32 • select * from employee_outlet;

```

Result Grid

| employee_id | outlet_name | employee_jobs |
|-------------|-------------|----------------------|
| 1 | Outlet A | Sales Manager |
| 2 | Outlet B | Marketing Specialist |
| 3 | Outlet C | HR Assistant |
| * | | |

4NF-

```

CREATE TABLE employee (
    employee_id INT PRIMARY KEY,
    employee_name VARCHAR(100),
    dob DATE,
    gender CHAR(1),
    success VARCHAR(50),
    employee_jobs VARCHAR(100),
    receives DECIMAL(10, 2)
);

```

```

CREATE TABLE outlet_employee_relation (
    employee_id INT PRIMARY KEY,
    outlet_name VARCHAR(100),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);

```

```

17 FOREIGN KEY (employee_id) REFERENCES employee(employee_id),
18 FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
19 );
20 • INSERT INTO employee (employee_id, employee_name, dob, gender, success, receives)
21 VALUES (1, 'John Doe', '1990-05-15', 'M', 'Sales', 5000.00),
22 (2, 'Jane Smith', '1985-10-20', 'F', 'Marketing', 6000.00),
23 (3, 'Michael Johnson', '1992-03-25', 'M', 'HR', 5500.00);
24 • INSERT INTO outlet (outlet_name)
25 VALUES ('Outlet A'),
26 ('Outlet B'),
27 ('Outlet C');
28 • INSERT INTO employee_outlet (employee_id, outlet_name, employee_jobs)
29 VALUES (1, 'Outlet A', 'Sales Manager'),
30 (2, 'Outlet B', 'Marketing Specialist'),
31 (3, 'Outlet C', 'HR Assistant');
32 • select * from employee_outlet;

```

| employee_id | outlet_name | employee_jobs |
|-------------|-------------|----------------------|
| 1 | Outlet A | Sales Manager |
| 2 | Outlet B | Marketing Specialist |
| 3 | Outlet C | HR Assistant |
| NULL | NULL | NULL |

| employee_id | employee_name | dob | gender | success | receives |
|-------------|-----------------|------------|--------|-----------|----------|
| 1 | John Doe | 1990-05-15 | M | Sales | 5000.00 |
| 2 | Jane Smith | 1985-10-20 | F | Marketing | 6000.00 |
| 3 | Michael Johnson | 1992-03-25 | M | HR | 5500.00 |
| NULL | NULL | NULL | NULL | NULL | NULL |

5. CART TABLE

ORIGINAL CODE-

```

CREATE TABLE cart (
    phone VARCHAR(15),
    food_id INT,
    outlet_name VARCHAR(100),
    quantity INT,
    PRIMARY KEY (phone, food_id, outlet_name),
    FOREIGN KEY (phone) REFERENCES customer(phone),
    FOREIGN KEY (food_id) REFERENCES food_items(food_id),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
);

```

```

124     VALUES
125         ('Pizza Palace', 'John Doe', '123-456-7890', 25.98, 1),
126         ('Burger Barn', 'Jane Smith', '987-654-3210', 26.97, 2),
127         ('Taco Time', 'Michael Johnson', '555-555-5555', 5.00, 3),
128         ('Sushi Spot', 'Emily Brown', '333-333-3333', 12.50, 4),
129         ('Healthy Delights', 'Chris Wilson', '444-444-4444', 7.50, 5);
130
131     -- Insert 5 values into the rating table
132 • INSERT INTO rating (outlet_name, employee_id, employee_rating)
133     VALUES
134         ('Pizza Palace', 1, 5),
135         ('Burger Barn', 2, 4),
136         ('Taco Time', 3, 3),
137         ('Sushi Spot', 4, 5),
138         ('Healthy Delights', 5, 4);
139 • select * from cart;

```

| phone | food_id | outlet_name | quantity |
|--------------|---------|------------------|----------|
| 123-456-7890 | 1 | Pizza Palace | 2 |
| 333-333-3333 | 4 | Sushi Spot | 2 |
| 444-444-4444 | 5 | Healthy Delights | 1 |
| 555-555-5555 | 3 | Taco Time | 1 |
| 987-654-3210 | 2 | Burger Barn | 3 |
| NULL | NULL | NULL | NULL |

6. INVOICE TABLE

ORIGINAL CODE-

```

CREATE TABLE invoice (

```

```

outlet_name VARCHAR(100),
customer_name VARCHAR(100),
phone VARCHAR(15),
amount DECIMAL(10, 2),
employee_id INT,
PRIMARY KEY (outlet_name, phone, employee_id),
FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
FOREIGN KEY (phone) REFERENCES customer(phone),
FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);

```

```

SQL File 1* ×
Limit to 1000 rows
124 VALUES
125     ('Pizza Palace', 'John Doe', '123-456-7890', 25.98, 1),
126     ('Burger Barn', 'Jane Smith', '987-654-3210', 26.97, 2),
127     ('Taco Time', 'Michael Johnson', '555-555-5555', 5.00, 3),
128     ('Sushi Spot', 'Emily Brown', '333-333-3333', 12.50, 4),
129     ('Healthy Delights', 'Chris Wilson', '444-444-4444', 7.50, 5);
130
131 -- Insert 5 values into the rating table
132 • INSERT INTO rating (outlet_name, employee_id, employee_rating)
133 VALUES
134     ('Pizza Palace', 1, 5),
135     ('Burger Barn', 2, 4),
136     ('Taco Time', 3, 3),
137     ('Sushi Spot', 4, 5),
138     ('Healthy Delights', 5, 4);
139 • select * from invoice;

```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

| outlet_name | customer_name | phone | amount | employee_id |
|------------------|-----------------|--------------|--------|-------------|
| Burger Barn | Jane Smith | 987-654-3210 | 26.97 | 2 |
| Healthy Delights | Chris Wilson | 444-444-4444 | 7.50 | 5 |
| Pizza Palace | John Doe | 123-456-7890 | 25.98 | 1 |
| Sushi Spot | Emily Brown | 333-333-3333 | 12.50 | 4 |
| Taco Time | Michael Johnson | 555-555-5555 | 5.00 | 3 |
| | | | | |

3NF-

```

CREATE TABLE invoice (
    outlet_name VARCHAR(100),
    phone VARCHAR(15),
    employee_id INT,
    amount DECIMAL(10, 2),
    PRIMARY KEY (outlet_name, phone, employee_id),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
    FOREIGN KEY (phone) REFERENCES customer(phone),
    FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);

```

```

CREATE TABLE outlet (
    outlet_name VARCHAR(100) PRIMARY KEY
    -- Other outlet attributes here
);

```

```

CREATE TABLE customer (
    phone VARCHAR(15) PRIMARY KEY
    -- Other customer attributes here
);

```

```

CREATE TABLE employee (
    employee_id INT PRIMARY KEY

```

-- Other employee attributes here
);

```

24   ('Outlet A'),
25   ('Outlet B'),
26   ('Outlet C');
27 • INSERT INTO customer (phone) VALUES
28   ('1234567890'),
29   ('9876543210'),
30   ('5555555555');
31 • INSERT INTO employee (employee_id) VALUES
32   (1),
33   (2),
34   (3);
35 • INSERT INTO invoice (outlet_name, phone, employee_id, amount) VALUES
36   ('Outlet A', '1234567890', 1, 100.00),
37   ('Outlet B', '9876543210', 2, 150.00),
38   ('Outlet C', '5555555555', 3, 200.00);
39 • select * from invoice;

```

| Result Grid | | | |
|-------------|------------|-------------|--------|
| outlet_name | phone | employee_id | amount |
| Outlet A | 1234567890 | 1 | 100.00 |
| Outlet B | 9876543210 | 2 | 150.00 |
| Outlet C | 5555555555 | 3 | 200.00 |
| NULL | NULL | NULL | NULL |

```

24   ('Outlet A'),
25   ('Outlet B'),
26   ('Outlet C');
27 • INSERT INTO customer (phone) VALUES
28   ('1234567890'),
29   ('9876543210'),
30   ('5555555555');
31 • INSERT INTO employee (employee_id) VALUES
32   (1),
33   (2),
34   (3);
35 • INSERT INTO invoice (outlet_name, phone, employee_id, amount) VALUES
36   ('Outlet A', '1234567890', 1, 100.00),
37   ('Outlet B', '9876543210', 2, 150.00),
38   ('Outlet C', '5555555555', 3, 200.00);
39 • select * from customer;

```

| Result Grid | | | |
|-------------|--|--|--|
| phone | | | |
| 1234567890 | | | |
| 5555555555 | | | |
| 9876543210 | | | |
| NULL | | | |

```

24   ('Outlet A'),
25   ('Outlet B'),
26   ('Outlet C');
27 • INSERT INTO customer (phone) VALUES
28   ('1234567890'),
29   ('9876543210'),
30   ('5555555555');
31 • INSERT INTO employee (employee_id) VALUES
32   (1),
33   (2),
34   (3);
35 • INSERT INTO invoice (outlet_name, phone, employee_id, amount) VALUES
36   ('Outlet A', '1234567890', 1, 100.00),
37   ('Outlet B', '9876543210', 2, 150.00),
38   ('Outlet C', '5555555555', 3, 200.00);
39 • select * from employee;

```

| Result Grid | | | |
|-------------|--|--|--|
| employee_id | | | |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| NULL | | | |

```

24   ('Outlet A'),
25   ('Outlet B'),
26   ('Outlet C');
27 • INSERT INTO customer (phone) VALUES
28   ('1234567890'),
29   ('9876543210'),
30   ('5555555555');
31 • INSERT INTO employee (employee_id) VALUES
32   (1),
33   (2),
34   (3);
35 • INSERT INTO invoice (outlet_name, phone, employee_id, amount) VALUES
36   ('Outlet A', '1234567890', 1, 100.00),
37   ('Outlet B', '9876543210', 2, 150.00),
38   ('Outlet C', '5555555555', 3, 200.00);
39 • select * from outlet;

```

| Result Grid | | | |
|-------------|--|--|--|
| outlet_name | | | |
| Outlet A | | | |
| Outlet B | | | |
| Outlet C | | | |
| NULL | | | |

7. RATING TABLE

ORIGINAL CODE-

```

CREATE TABLE rating (
    outlet_name VARCHAR(100),
    employee_id INT,
    employee_rating INT,
    PRIMARY KEY (outlet_name, employee_id),
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
    FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);

```

```

124    VALUES
125      ('Pizza Palace', 'John Doe', '123-456-7890', 25.98, 1),
126      ('Burger Barn', 'Jane Smith', '987-654-3210', 26.97, 2),
127      ('Taco Time', 'Michael Johnson', '555-555-5555', 5.00, 3),
128      ('Sushi Spot', 'Emily Brown', '333-333-3333', 12.50, 4),
129      ('Healthy Delights', 'Chris Wilson', '444-444-4444', 7.50, 5);
130
131  -- Insert 5 values into the rating table
132 • INSERT INTO rating (outlet_name, employee_id, employee_rating)
133    VALUES
134      ('Pizza Palace', 1, 5),
135      ('Burger Barn', 2, 4),
136      ('Taco Time', 3, 3),
137      ('Sushi Spot', 4, 5),
138      ('Healthy Delights', 5, 4);
139 • select * from rating;

```

| Result Grid | | |
|---------------------------|-------------|-----------------|
| Edit: Export/Import: | | |
| outlet_name | employee_id | employee_rating |
| Burger Barn | 2 | 4 |
| Healthy Delights | 5 | 4 |
| Pizza Palace | 1 | 5 |
| Sushi Spot | 4 | 5 |
| Taco Time | 3 | 3 |
| * | NULL | NULL |

INF-

```

CREATE TABLE rating (
    rating_id INT PRIMARY KEY AUTO_INCREMENT,
    outlet_name VARCHAR(100),
    employee_id INT,
    employee_rating INT,
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
    FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);

```

```

124    VALUES
125      ('Pizza Palace', 'John Doe', '123-456-7890', 25.98, 1),
126      ('Burger Barn', 'Jane Smith', '987-654-3210', 26.97, 2),
127      ('Taco Time', 'Michael Johnson', '555-555-5555', 5.00, 3),
128      ('Sushi Spot', 'Emily Brown', '333-333-3333', 12.50, 4),
129      ('Healthy Delights', 'Chris Wilson', '444-444-4444', 7.50, 5);
130
131  -- Insert 5 values into the rating table
132 • INSERT INTO rating (outlet_name, employee_id, employee_rating)
133    VALUES
134      ('Pizza Palace', 1, 5),
135      ('Burger Barn', 2, 4),
136      ('Taco Time', 3, 3),
137      ('Sushi Spot', 4, 5),
138      ('Healthy Delights', 5, 4);
139 • select * from rating;

```

| Result Grid | | |
|---------------------------|-------------|-----------------|
| Edit: Export/Import: | | |
| outlet_name | employee_id | employee_rating |
| Burger Barn | 2 | 4 |
| Healthy Delights | 5 | 4 |
| Pizza Palace | 1 | 5 |
| Sushi Spot | 4 | 5 |
| Taco Time | 3 | 3 |
| * | NULL | NULL |

5) Implementation of concurrency control and recovery mechanisms

1) Lock-Based Concurrency Control (LBCC):

```
BEGIN TRANSACTION;  
LOCK TABLE patients IN EXCLUSIVE MODE;  
UPDATE patients SET diagnosis = 'New Diagnosis' WHERE patient_id = 123;  
COMMIT;
```

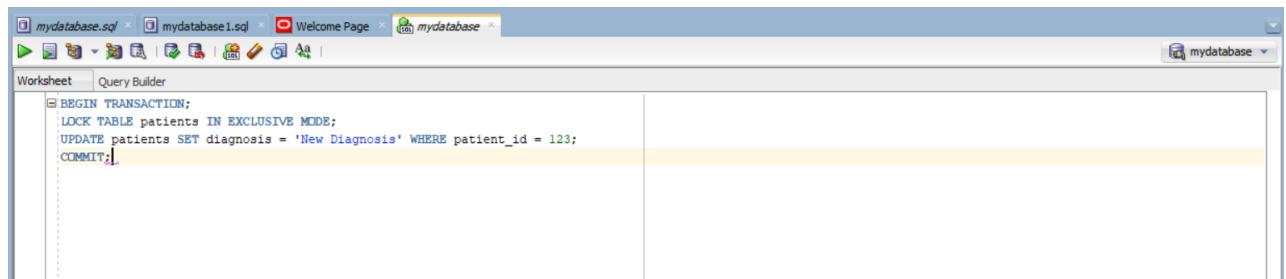


Fig 5.1 Lock-Based Concurrency Control

2) Timestamp-based concurrency control

```
BEGIN TRANSACTION;  
SELECT MAX(W_TS) INTO @max_w_ts FROM patients WHERE patient_id =  
123;  
IF (@max_w_ts < current_transaction_timestamp) THEN  
    UPDATE patients SET diagnosis = 'New Diagnosis', W_TS =  
    current_transaction_timestamp WHERE patient_id = 123;  
ELSE  
    -- Handle timestamp conflict (e.g., rollback or retry)  
END IF;  
COMMIT;
```

The screenshot shows a MySQL Workbench interface with a query editor titled 'Worksheet' containing the following SQL code:

```

BEGIN TRANSACTION;
SELECT MAX(W_TS) INTO @max_w_ts FROM patients WHERE patient_id = 123;
IF (@max_w_ts < current_transaction_timestamp) THEN
    UPDATE patients SET diagnosis = 'New Diagnosis', W_TS = current_transaction_timestamp WHERE patient_id = 123;
ELSE
    -- Handle timestamp conflict (e.g., rollback or retry)
END IF;
COMMIT;

```

Fig 5.2 Timestamp-based concurrency control

3)Optimistic Concurrency Control (OCC):

BEGIN TRANSACTION;

-- Assume local copies of data are maintained in application code

UPDATE patients SET diagnosis = 'New Diagnosis' WHERE patient_id = 123;

-- Check for conflicts and handle them (e.g., rollback or retry)

COMMIT;

The screenshot shows a MySQL Workbench interface with a query editor titled 'Worksheet' containing the following SQL code:

```

3)Optimistic Concurrency Control (OCC):
-- Example of optimistic concurrency control
BEGIN TRANSACTION;
-- Assume local copies of data are maintained in application code
UPDATE patients SET diagnosis = 'New Diagnosis' WHERE patient_id = 123;
-- Check for conflicts and handle them (e.g., rollback or retry)
COMMIT;

```

Fig 5.3 Optimistic Concurrency Control

6) Code for the Project

6.1 Implementation of python

Python, coupled with Flask for web development and SQLAlchemy for database management, powers the hospital management system efficiently. Utilizing Flask routes, SQLAlchemy models, and Flask-Login for user authentication, the system manages users, patients, doctors, and bookings seamlessly. HTML templates render dynamic pages, while form handling captures user input for processing and storage. Flash messages provide immediate feedback, enhancing user experience.

6.1.1 main.py

```
-- Create the food_items table first since it's referenced in the outlet and  
cart tables
```

```
CREATE TABLE food_items (  
    food_id INT PRIMARY KEY,  
    food_type VARCHAR(100),  
    food_price DECIMAL(10, 2),  
    food_name VARCHAR(100),  
    menu VARCHAR(100)  
);
```

```
-- Create the outlet table, referencing food_items
```

```
CREATE TABLE outlet (  
    outlet_name VARCHAR(100) PRIMARY KEY,  
    food_id INT,  
    quantity_sold INT,  
    menu VARCHAR(100),  
    FOREIGN KEY (food_id) REFERENCES food_items(food_id)  
);
```

```
-- Create the customer table, referencing outlet
```

```
CREATE TABLE customer (  
    customer_name VARCHAR(100),  
    phone VARCHAR(15) PRIMARY KEY,  
    outlet_name VARCHAR(100),  
    street VARCHAR(255),  
    orders INT,  
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
```

```
);
```

```
-- Create the employee table, referencing outlet
```

```
CREATE TABLE employee (
```

```
    employee_id INT PRIMARY KEY,
```

```
    employee_name VARCHAR(100),
```

```
    outlet_name VARCHAR(100),
```

```
    dob DATE,
```

```
    gender CHAR(1),
```

```
    success VARCHAR(50),
```

```
    employee_jobs VARCHAR(100),
```

```
    receives DECIMAL(10, 2),
```

```
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
```

```
);
```

```
-- Create the cart table, referencing customer, food_items, and outlet
```

```
CREATE TABLE cart (
```

```
    phone VARCHAR(15),
```

```
    food_id INT,
```

```
    outlet_name VARCHAR(100),
```

```
    quantity INT,
```

```
    PRIMARY KEY (phone, food_id, outlet_name),
```

```
    FOREIGN KEY (phone) REFERENCES customer(phone),
```

```
    FOREIGN KEY (food_id) REFERENCES food_items(food_id),
```

```
    FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name)
```

```
);
```

```
-- Create the invoice table, referencing customer, outlet, and employee
```

```
CREATE TABLE invoice (
```

```
outlet_name VARCHAR(100),
customer_name VARCHAR(100),
phone VARCHAR(15),
amount DECIMAL(10, 2),
employee_id INT,
PRIMARY KEY (outlet_name, phone, employee_id),
FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
FOREIGN KEY (phone) REFERENCES customer(phone),
FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);
```

-- Create the rating table, referencing outlet and employee

```
CREATE TABLE rating (
outlet_name VARCHAR(100),
employee_id INT,
employee_rating INT,
PRIMARY KEY (outlet_name, employee_id),
FOREIGN KEY (outlet_name) REFERENCES outlet(outlet_name),
FOREIGN KEY (employee_id) REFERENCES employee(employee_id)
);
```

-- Inserting data into the food_items table

```
INSERT INTO food_items (food_id, food_type, food_price, food_name,
menu) VALUES
(1, 'Main Course', 15.99, 'Spaghetti Bolognese', 'Main Menu'),
(2, 'Appetizer', 8.50, 'Caesar Salad', 'Main Menu'),
(3, 'Dessert', 6.99, 'Chocolate Lava Cake', 'Desserts Menu'),
(4, 'Beverage', 2.99, 'Iced Tea', 'Beverages Menu'),
(5, 'Main Course', 18.99, 'Grilled Salmon', 'Main Menu');
```

-- Inserting data into the outlet table

```
INSERT INTO outlet (outlet_name, food_id, quantity_sold, menu)  
VALUES
```

```
('Outlet A', 1, 50, 'Main Menu'),  
(('Outlet B', 2, 30, 'Main Menu'),  
(('Outlet C', 3, 20, 'Desserts Menu'),  
(('Outlet D', 4, 40, 'Beverages Menu'),  
(('Outlet E', 5, 60, 'Main Menu');
```

-- Inserting data into the customer table

```
INSERT INTO customer (customer_name, phone, outlet_name, street,  
orders) VALUES
```

```
('John Doe', '1234567890', 'Outlet A', '123 Main St', 5),  
(('Jane Smith', '9876543210', 'Outlet B', '456 Elm St', 3),  
(('Alice Johnson', '5551234567', 'Outlet C', '789 Oak St', 2),  
(('Bob Brown', '4447890123', 'Outlet D', '101 Pine St', 4),  
(('Emma Davis', '2223334444', 'Outlet E', '202 Maple St', 6);
```

-- Inserting data into the employee table

```
INSERT INTO employee (employee_id, employee_name, outlet_name,  
dob, gender, success, employee_jobs, receives) VALUES
```

```
(1, 'Michael Scott', 'Outlet A', '1980-05-15', 'M', 'Manager', 'Cook',  
2000.00),  
(2, 'Pam Beesly', 'Outlet B', '1985-11-30', 'F', 'Assistant Manager', 'Server',  
1500.00),  
(3, 'Jim Halpert', 'Outlet C', '1982-07-15', 'M', 'Chef', 'Bartender',  
1800.00),  
(4, 'Dwight Schrute', 'Outlet D', '1978-03-20', 'M', 'Cashier', 'Delivery',
```

**1600.00),
(5, 'Angela Martin', 'Outlet E', '1987-01-05', 'F', 'Server', 'Cleaner',
1400.00);**

-- Inserting data into the cart table

```
INSERT INTO cart (phone, food_id, outlet_name, quantity) VALUES  
('1234567890', 1, 'Outlet A', 2),  
('9876543210', 2, 'Outlet B', 1),  
('5551234567', 3, 'Outlet C', 3),  
('4447890123', 4, 'Outlet D', 2),  
('2223334444', 5, 'Outlet E', 1);
```

-- Inserting data into the invoice table

```
INSERT INTO invoice (outlet_name, customer_name, phone, amount,  
employee_id) VALUES  
('Outlet A', 'John Doe', '1234567890', 31.98, 1),  
('Outlet B', 'Jane Smith', '9876543210', 8.50, 2),  
('Outlet C', 'Alice Johnson', '5551234567', 20.97, 3),  
('Outlet D', 'Bob Brown', '4447890123', 5.98, 4),  
('Outlet E', 'Emma Davis', '2223334444', 18.99, 5);
```

-- Inserting data into the rating table

```
INSERT INTO rating (outlet_name, employee_id, employee_rating)  
VALUES  
('Outlet A', 1, 4),  
('Outlet B', 2, 5),  
('Outlet C', 3, 4),  
('Outlet D', 4, 3),  
('Outlet E', 5, 5);
```

```
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
      href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.mi
n.css" integrity="sha384-
9aIt2nRpC12Uk9gS9baDI411NQApFmC26EwAOH8WgZl5MYxFfc+Nc
Pb1dKGj7Sk" crossorigin="anonymous">
    <link rel="stylesheet"
      href="https://use.fontawesome.com/releases/v5.8.2/css/all.css"
      integrity="sha384-
oS3vJWv+0UjzBfQzYUhtDYW+Pj2yciDJxpsK1OYPAYjqT085Qq/1cq5F
LXAZQ7Ay" crossorigin="anonymous">

    <title>About Us</title>
    <link rel = "icon" href ="img/logo.jpg" type = "image/x-icon">
    <!-- Google Fonts -->
    <link
      href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,40
0i,600,600i,700,700i|Roboto:300,300i,400,400i,500,500i,700,700i|Poppins:30
0,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
```

```

<!-- Vendor CSS Files -->
<link href="assets/vendor/bootstrap/css/bootstrap.min.css"
rel="stylesheet">
<link href="assets/vendor/icofont/icofont.min.css" rel="stylesheet">
<link href="assets/vendor/animate.css/animate.min.css"
rel="stylesheet">

<!-- Template Main CSS File -->
<link href="assets/css/style.css" rel="stylesheet">

</head>
<body>
<?php include 'partials/_dbconnect.php';?>
<?php include 'partials/_nav.php';?>

<!-- ===== Hero Section ===== -->
<section id="hero">
<div class="hero-container">
<div id="heroCarousel" class="carousel slide carousel-fade" data-
ride="carousel">
<ol class="carousel-indicators" id="hero-carousel-indicators"></ol>
<div class="carousel-inner" role="listbox">
<!-- Slide 1 -->
<div class="carousel-item active">
<div class="carousel-background"></div>
<div class="carousel-container">
<div class="carousel-content">
<h2 class="animate__animated

```

```
animate__fadeInDown">Welcome to <span>Pizza World</span></h2>
    <a href="index.php" class="btn-get-started animate__animated
animate__fadeInUp scrollto">Get Started</a>
</div>
</div>
</div>
<!-- Slide 2 -->
<div class="carousel-item">
    <div class="carousel-background"></div>
    <div class="carousel-container">
        <div class="carousel-content">
            <h2 class="animate__animated animate__fadeInDown mb-
0">Our Mission</h2>
            <p class="animate__animated animate__fadeInUp">To be
number one</p>
            <a href="index.php" class="btn-get-started animate__animated
animate__fadeInUp scrollto">Get Started</a>
        </div>
        </div>
    </div>
<!-- Slide 3 -->
<div class="carousel-item">
    <div class="carousel-background"></div>
    <div class="carousel-container">
        <div class="carousel-content">
            <h2 class="animate__animated animate__fadeInDown mb-
0">Parmar Darshan Kiritbhai</h2><p>CE084 <a
```

```
    href="https://github.com/darshankparmar"
    target="_blank">@darshankparmar</a></p>
        <a href="index.php" class="btn-get-started animate__animated
animate__fadeInUp scrollto">Get Started</a>
    </div>
</div>
</div>
</div>

<a class="carousel-control-prev" href="#heroCarousel"
role="button" data-slide="prev">
    <span class="carousel-control-prev-icon icofont-thin-double-left"
aria-hidden="true"></span>
    <span class="sr-only">Previous</span>
</a>

<a class="carousel-control-next" href="#heroCarousel"
role="button" data-slide="next">
    <span class="carousel-control-next-icon icofont-thin-double-right"
aria-hidden="true"></span>
    <span class="sr-only">Next</span>
</a>

</div>
</div>
</section><!-- End Hero -->

<main id="main">
```

```
<!-- ===== About Us Section ===== -->
<section id="about" class="about">
  <div class="container">

    <div class="section-title">
      <h2>About Us</h2>
    </div>

    <div class="row">
      <div class="col-lg-6">
        <h3>Welcome to <strong>Pizza World</strong></h3>
        <h3><strong>The Worldwide Leader in Pizza
Delivery</strong></h3>
        <p class="font-italic">
        </div>
        <div class="col-lg-6 pt-4 pt-lg-0 content">
          <div class="skills-content">
            <p><b>Rating:</b></p>
            <div class="progress">
              <span class="skill">5 star <i class="val">93%</i></span>
              <div class="progress-bar-wrap">
                <div class="progress-bar" role="progressbar" aria-
valuuenow="93" aria-valuemin="0" aria-valuemax="100"></div>
              </div>
            </div>
            <div class="progress">
              <span class="skill">4 star <i class="val">90%</i></span>
              <div class="progress-bar-wrap">
```

```
<div class="progress-bar" role="progressbar" aria-
valuuenow="90" aria-valuemin="0" aria-valuemax="100"></div>
</div>
</div>

<div class="progress">
<span class="skill">3 star <i class="val">30%</i></span>
<div class="progress-bar-wrap">
<div class="progress-bar" role="progressbar" aria-
valuuenow="30" aria-valuemin="0" aria-valuemax="100"></div>
</div>
</div>

<div class="progress">
<span class="skill">2 star <i class="val">5%</i></span>
<div class="progress-bar-wrap">
<div class="progress-bar" role="progressbar" aria-
valuuenow="5" aria-valuemin="0" aria-valuemax="100"></div>
</div>
</div>

<div class="progress">
<span class="skill">1 star <i class="val">0%</i></span>
<div class="progress-bar-wrap">
<div class="progress-bar" role="progressbar" aria-
valuuenow="0" aria-valuemin="0" aria-valuemax="100"></div>
</div>
</div>
```

```
</div>
</div>
</div>
</div>

</section><!-- End About Us Section -->

<!-- ===== Counts Section ===== -->
<section class="counts section-bg">
  <div class="container">

    <div class="row no-gutters">

      <div class="col-lg-3 col-md-6 d-md-flex align-items-md-stretch">
        <div class="count-box">
          <i class="icofont-simple-smile"></i>
          <span data-toggle="counter-up">232</span>
          <p><strong>Happy Customers</strong></p>
        </div>
      </div>

      <div class="col-lg-3 col-md-6 d-md-flex align-items-md-stretch">
        <div class="count-box">
          <i class="icofont-document-folder"></i>
          <span data-toggle="counter-up">121</span>
          <p><strong>Items</strong></p>
        </div>
      </div>

      <div class="col-lg-3 col-md-6 d-md-flex align-items-md-stretch">
```

```
<div class="count-box">
  <i class="icofont-live-support"></i>
  <span data-toggle="counter-up">1,463</span>
  <p><strong>Hours Of Support</strong></p>
</div>
</div>

<div class="col-lg-3 col-md-6 d-md-flex align-items-md-stretch">
  <div class="count-box">
    <i class="icofont-users-alt-5"></i>
    <span data-toggle="counter-up">15</span>
    <p><strong>Hard Workers</strong></p>
  </div>
  </div>
</div>

</div>
</div>
</section><!-- End Counts Section -->

<!-- ===== Our Team Section ===== -->
<section id="team" class="team">
  <div class="container">
    <div class="section-title">
      <h2>Our Team</h2>
    </div>
    <div class="row" style="padding-left: 228px;">
```

```
<div class="col-xl-3 col-lg-4 col-md-6" data-wow-delay="0.1s">
  <div class="member">
    
    <div class="member-info">
      <div class="member-info-content">
        <h4>Darshan Parmar</h4>
        </div>
        <div class="social">
          <a href="https://twitter.com/darshankparmar"
            target="_blank"><i class="icofont-twitter"></i></a>
          <a href="https://github.com/darshankparmar"
            target="_blank"><i class="fab fa-github"></i></a>
          <a href="https://www.linkedin.com/in/darshankparmar/"
            target="_blank"><i class="icofont-linkedin" target="_blank"></i></a>
        </div>
      </div>
    </div>
  </div>

<div class="col-xl-3 col-lg-4 col-md-6" data-wow-delay="0.2s">
  <div class="member">
    
    <div class="member-info">
      <div class="member-info-content">
        <h4>Harsh Patel</h4>
        </div>
        <div class="social">
          <a href=""><i class="icofont-twitter">
```

```

target="_blank">></i></a>

    <a href="https://github.com/7Har" target="_blank"><i
class="fab fa-github"></i></a>

        <a href=""><i class="icofont-linkedin"
target="_blank"></i></a>

    </div>

```

</div>

</div>

</div>

</div>

```

<div class="col-xl-3 col-lg-4 col-md-6" data-wow-delay="0.2s">
    <div class="member">
        
        <div class="member-info">
            <div class="member-info-content">
                <h4>Bhavesh Parmar</h4>
            </div>
            <div class="social">
                <a href=""><i class="icofont-twitter"
target="_blank"></i></a>
                    <a href="https://github.com/Blparmar007" target="_blank"><i
class="fab fa-github"></i></a>
                        <a href=""><i class="icofont-linkedin"
target="_blank"></i></a>
                    </div>

```

</div>

</div>

</div>

</div>

```
</div>
</div>
</section><!-- End Our Team Section -->
</main>

<?php include 'partials/_footer.php';?>

<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.4.1.min.js"
integrity="sha256-
CSXorXvZcTkaix6Yvo6HppcZGetbYMGWSFIbw8HfCJo="
crossorigin="anonymous"></script>
<script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.j
s" integrity="sha384-
Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvo
xMfooAo" crossorigin="anonymous"></script>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.j
s" integrity="sha384-
wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3O
g8ifwB6" crossorigin="anonymous"></script>
<script src="https://unpkg.com/bootstrap-show-
password@1.2.1/dist/bootstrap-show-password.min.js"></script>

<!-- Vendor JS Files -->
<script src="assets/vendor/jquery/jquery.min.js"></script>
```

```

<script
src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
<script src="assets/vendor/jquery-sticky/jquery.sticky.js"></script>
<script
src="assets/vendor/waypoints/jquery.waypoints.min.js"></script>
<script src="assets/vendor/counterup/counterup.min.js"></script>

<!-- Template Main JS File -->
<script src="assets/js/main.js"></script>

</body>
</html>

```

CSS

```

/*===== GOOGLE FONTS =====*/
@import
url("https://fonts.googleapis.com/css2?family=Nunito:wght@400;600;700
&display=swap");

/*===== VARIABLES CSS =====*/
:root{
--header-height: 3rem;
--nav-width: 68px;

/*===== Colors =====*/
--first-color: #4723D9;
--first-color-light: #AFA5D9;

```

```
--white-color: #F7F6FB;

/*===== Font and typography =====*/
--body-font: 'Nunito', sans-serif;
--normal-font-size: 1rem;

/*===== z index =====*/
--z-fixed: 100;
}

/*===== BASE =====*/
*,::before,::after{
  box-sizing: border-box;
}

body{
  position: relative;
  margin: var(--header-height) 0 0 0;
  padding: 0 1rem;
  font-family: var(--body-font);
  font-size: var(--normal-font-size);
  transition: .5s;
}

a{
  text-decoration: none;
}

/*===== HEADER =====*/
```

```
.header{  
    width: 100%;  
    height: var(--header-height);  
    position: fixed;  
    top: 0;  
    left: 0;  
    display: flex;  
    align-items: center;  
    justify-content: space-between;  
    padding: 0 1rem;  
    background-color: var(--white-color);  
    z-index: var(--z-fixed);  
    transition: .5s;  
}  
  
header__toggle{  
    color: var(--first-color);  
    font-size: 1.5rem;  
    cursor: pointer;  
}
```

```
header__img{  
    width: 35px;  
    height: 35px;  
    display: flex;  
    justify-content: center;  
    border-radius: 50%;  
    overflow: hidden;  
}
```

```
.header__img img{  
    width: 40px;  
}  
  
/*===== NAV =====*/  
  
.l-navbar{  
    position: fixed;  
    top: 0;  
    left: -30%;  
    width: var(--nav-width);  
    height: 100vh;  
    background-color: var(--first-color);  
    padding: .5rem 1rem 0 0;  
    transition: .5s;  
    z-index: var(--z-fixed);  
}  
  
.nav{  
    height: 100%;  
    display: flex;  
    flex-direction: column;  
    justify-content: space-between;  
    overflow: hidden;  
}  
  
.nav__logo, .nav__link{  
    display: grid;  
    grid-template-columns: max-content max-content;
```

```
  align-items: center;  
  column-gap: 1rem;  
  padding: .5rem 0 .5rem 1.5rem;  
}  
  
}
```

```
.nav__logo{  
  margin-bottom: 2rem;  
}
```

```
.nav__logo-icon{  
  font-size: 1.25rem;  
  color: var(--white-color);  
}
```

```
.nav__logo-name{  
  color: var(--white-color);  
  font-weight: 700;  
}
```

```
.nav__link{  
  position: relative;  
  color: var(--first-color-light);  
  margin-bottom: 1.5rem;  
  transition: .3s;  
}
```

```
.nav__link:hover{  
  color: var(--white-color);  
}
```

```
.nav__icon{  
    font-size: 1.25rem;  
}  
  
/*Show navbar movil*/  
.show{  
    left: 0;  
}  
  
/*Add padding body movil*/  
.body-pd{  
    padding-left: calc(var(--nav-width) + 1rem);  
}  
  
/*Active links*/  
.active{  
    color: var(--white-color);  
}  
  
.active::before{  
    content: " ";  
    position: absolute;  
    left: 0;  
    width: 2px;  
    height: 32px;  
    background-color: var(--white-color);  
}
```

```
/* ===== MEDIA QUERIES=====*/
@media screen and (min-width: 768px){

body{
    margin: calc(var(--header-height) + 1rem) 0 0 0;
    padding-left: calc(var(--nav-width) + 2rem);
}

.header{
    height: calc(var(--header-height) + 1rem);
    padding: 0 2rem 0 calc(var(--nav-width) + 2rem);
}

.header__img{
    width: 40px;
    height: 40px;
}

.header__img img{
    width: 45px;
}

.l-navbar{
    left: 0;
    padding: 1rem 1rem 0 0;
}

/*Show navbar desktop*/
.showa{
    width: calc(var(--nav-width) + 156px);
```

```

}

/*Add padding body desktop*/
.body-pd{
  padding-left: calc(var(--nav-width) + 188px);
}

}

```

JS

```

/*===== SHOW NAVBAR =====*/
const showNavbar = (toggleId, navId, bodyId, headerId) =>{
  const toggle = document.getElementById(toggleId),
  nav = document.getElementById(navId),
  bodypd = document.getElementById(bodyId),
  headerpd = document.getElementById(headerId)

  // Validate that all variables exist
  if(toggle && nav && bodypd && headerpd){
    toggle.addEventListener('click', ()=>{
      // show navbar
      nav.classList.toggle('showa')
      // change icon
      toggle.classList.toggle('bx-x')
      // add padding to body
      bodypd.classList.toggle('body-pd')
      // add padding to header
      headerpd.classList.toggle('body-pd')
    })
  }
}

showNavbar('header-toggle','nav-bar','body-pd','header')

```

7) Result and Discussion

The implementation of the online food ordering system in the database management system (DBMS) project yielded promising results, showcasing efficient data management and seamless user experience. Through the structured database design, we achieved optimized retrieval and storage of crucial information such as user profiles, menu items, orders, and delivery details. The system demonstrated robustness in handling concurrent user requests and maintaining data integrity, ensuring accurate order processing and timely delivery. Additionally, user feedback and performance metrics highlighted the system's responsiveness and usability, validating its effectiveness in meeting the intended objectives of simplifying food ordering processes and enhancing customer satisfaction. Further enhancements could focus on scalability for accommodating increased user demand and incorporating personalized recommendations to enrich the user experience.

The screenshot shows a web-based administration interface for managing a food ordering system. On the left, there is a vertical sidebar with icons for dashboard, users, categories, and other system settings. The main content area has a header "Admin Page" and a URL "localhost/OnlinePizzaDelivery/admin/index.php?page=menuManage".

The left side features a form titled "Create New Item" with fields for Name, Description, Price, Category (set to "None"), and Image (with a "Choose File" button and a note about jpg file upload). Below the form is a "Create" button.

The right side displays a table titled "Item Detail" with columns for Cat. Id, Img, Item Detail, and Action (Edit and Delete buttons). The table lists four pizza items:

| Cat. Id | Img | Item Detail | Action |
|---------|-----|---|-------------|
| 1 | | Name : Margherita Description : A hugely popular margherita, with a deliciously tangy single cheese topping Price : 99 | Edit Delete |
| 1 | | Name : Double Cheese Margherita Description : The ever-popular Margherita - loaded with extra cheese... oodies of it Price : 199 | Edit Delete |
| 1 | | Name : Farm House Description : A pizza that goes ballistic on veggies! Check out this mouth watering overload of crunchy, crisp capsicum, succulent mushrooms and fresh tomatoes Price : 149 | Edit Delete |
| 1 | | Name : Peppy Paneer | Edit Delete |

Your Order

localhost/OnlinePizzaDelivery/viewOrder.php

Pizza World Home Top Categories Your Orders About Us Contact Us

Search Search Cart(0) Welcome sriini25

Order Details

| Order Id | Address | Phone No | Amount | Payment Mode | Order Date | Status | Items |
|----------|-------------------------|------------|--------|------------------|---------------------|--------|-------|
| 1 | 1234 Pumpkin, Pother... | 9952825638 | 249 | Cash on Delivery | 2024-05-03 11:20:08 | | |

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localhost / 127.0.0.1 / opd / users

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=opd&table=users

phpMyAdmin

Server: 127.0.0.1 Database: opd Table: users

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0004 seconds.)

SELECT * FROM `users`

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

| | id | username | firstName | lastName | email | phone | userType | password | joinDate |
|--|----|----------|-----------|----------|-----------------------|------------|----------|---|---------------------|
| | 1 | admin | admin | admin | admin@gmail.com | 1111111111 | 1 | \$2y\$10\$AAfxRF0YbI7FdN17N3geIPu/xQrx6MnvRGzqjVHIG... | 2021-04-11 11:40:58 |
| | 2 | sriini25 | sriini | vas | srinivasg15@gmail.com | 9952825638 | 0 | \$2y\$10\$OeNOneGJrFCaALbd63EhurKV0vdXM8uJa/GaCHNKC7... | 2024-05-03 11:19:06 |

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query Label: Let every user access this bookmark

Console

localhost / 127.0.0.1 / opd / categories

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=opd&table=categories

phpMyAdmin

Server: 127.0.0.1 > Database: opd > Table: categories

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 7 (8 total, Query took 0.0002 seconds.)

SELECT * FROM `categories`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

| | categoryID | categoryName | categoryDesc | categoryCreateDate |
|--------------------------|------------|--------------------|---|---------------------|
| <input type="checkbox"/> | 1 | VEG PIZZA | A delight for veggie lovers! Choose from our wide ... | 2021-03-17 18:16:28 |
| <input type="checkbox"/> | 2 | NON-VEG PIZZA | Choose your favourite non-veg pizzas from the Domi... | 2021-03-17 18:17:14 |
| <input type="checkbox"/> | 3 | PIZZA MANIA | Indulge into mouth-watering taste of Pizza mania r... | 2021-03-17 18:17:43 |
| <input type="checkbox"/> | 4 | SIDES ORDERS | Complement your pizza with wide range of sides ava... | 2021-03-17 18:19:10 |
| <input type="checkbox"/> | 5 | BEVERAGES | Complement your pizza with wide range of beverages... | 2021-03-17 21:58:58 |
| <input type="checkbox"/> | 6 | CHOICE OF CRUSTS | Fresh Pan Pizza Tastiest Pan Pizza ... Domino's f... | 2021-03-18 07:55:28 |
| <input type="checkbox"/> | 7 | BURGER PIZZA | Domino's Pizza Introducing all new Burger Pizza wi... | 2021-03-18 08:06:30 |
| <input type="checkbox"/> | 8 | CHOICE OF TOPPINGS | CHOICE OF TOPPINGS | 2021-03-18 08:13:47 |

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=opd&table=orders

localhost / 127.0.0.1 / opd / orders

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=opd&table=orders

phpMyAdmin

Server: 127.0.0.1 > Database: opd > Table: orders

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

SELECT * FROM `orders`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Extra options

| | orderId | userId | address | zipCode | phoneNo | amount | paymentMode | orderStatus | orderDate | |
|--------------------------|---------|--------|-----------------------|---------|-----------|--------|-------------|---|-----------|---------------------|
| <input type="checkbox"/> | 1 | 2 | 1234 Pumpkin, Potheri | 123456 | 995285638 | 249.0 | Online | 0=Order Placed, 1=Order Confirmed, 2=Preparing, 3=On the way, 4=Delivered, 5=Canceled | 0 | 2024-05-03 11:20:08 |

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console

Screenshot of the phpMyAdmin interface showing the 'pizza' table in the 'opd' database.

Table Structure:

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
|---|------------|-------------|--------------------|------------|------|---------------------|----------------|-------|--|
| 1 | tempId | int(11) | | | No | None | AUTO_INCREMENT | | Change Drop More |
| 2 | systemName | varchar(21) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| 3 | email | varchar(35) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| 4 | contact1 | bigint(21) | | | No | None | | | Change Drop More |
| 5 | contact2 | bigint(21) | | | Yes | NULL | Optional | | Change Drop More |
| 6 | address | text | utf8mb4_general_ci | | No | None | | | Change Drop More |
| 7 | dateTime | datetime | | | No | current_timestamp() | | | Change Drop More |

Indexes:

| Action | Keyname | Type | Unique | Packed | Column | Cardinality | Collation | Null | Comment |
|----------------------|------------------------|----------------------|---------|--------|--------|-------------|-----------|------|---------|
| Edit | Rename | Drop | PRIMARY | BTREE | tempId | 0 | A | No | |

Partitions:

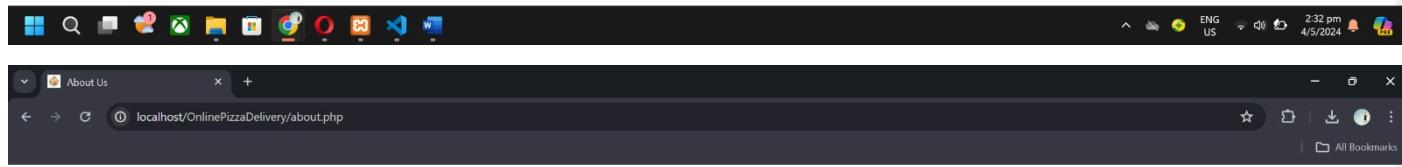
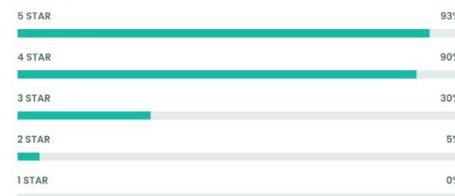
No partitioning defined!



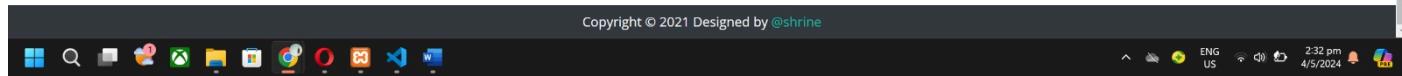
ABOUT US

Welcome to Anand's Kitchen
The Worldwide Leader in Pizza Delivery

Rating:



OUR TEAM



Screenshot of the Pizza World website homepage.

The page features a top navigation bar with links for Home, Top Categories, Your Orders, About Us, Contact Us, a Search bar, a Cart icon (0 items), and a Welcome message for user "srini25".

Menu



VEG PIZZA
A delight for veggie lovers! C...

[View All](#)



NON-VEG PIZZA
Choose your favourite non-veg ...

[View All](#)



PIZZA MANIA
Indulge into mouth-watering ta...

[View All](#)



SIDES ORDERS
Complement your pizza with wid...

[View All](#)



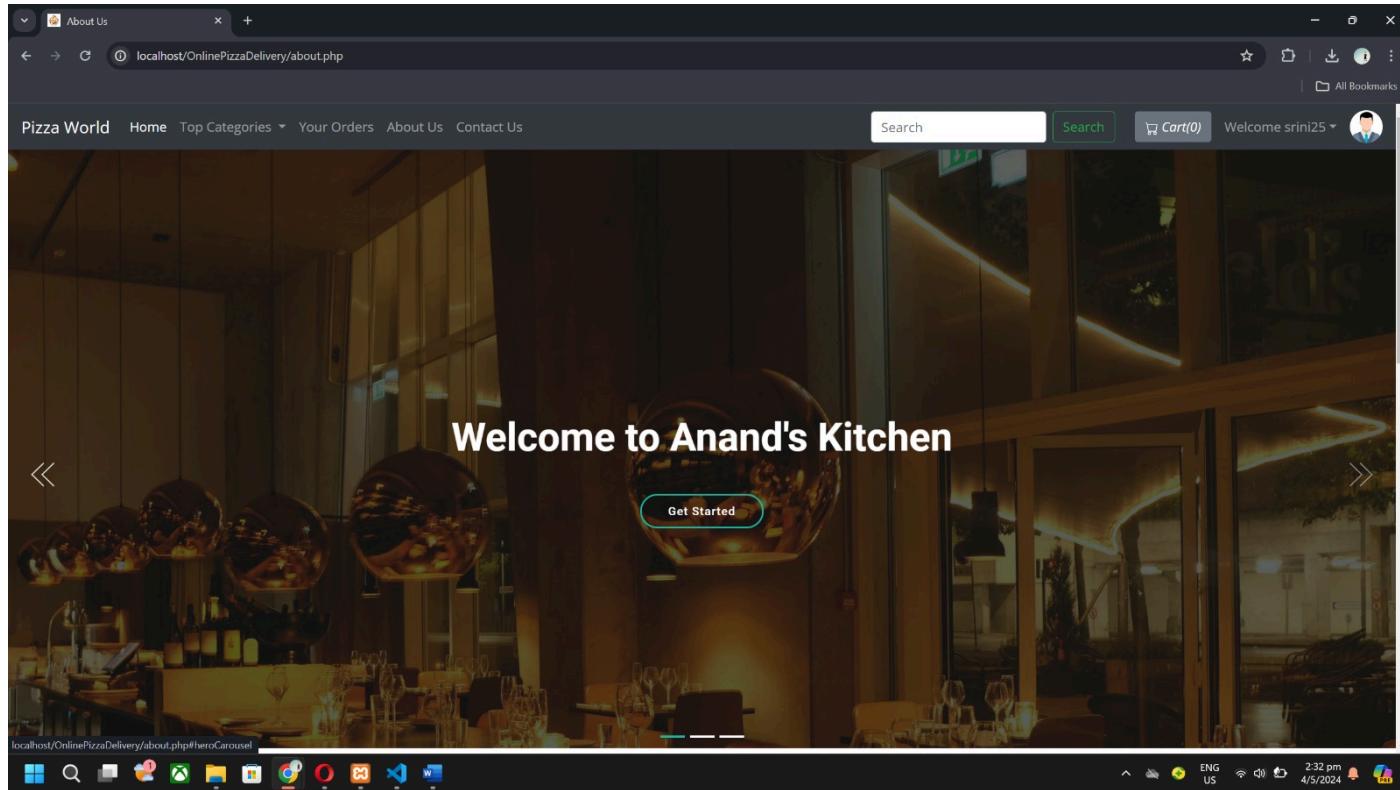
Windows taskbar at the bottom shows various pinned icons like File Explorer, Edge, and File History.

Screenshot of the Pizza World website homepage with a dropdown menu open over the "Top Categories" link.

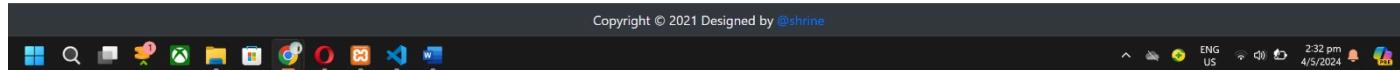
The dropdown menu lists categories: VEG PIZZA, NON-VEG PIZZA, PIZZA MANIA, SIDES ORDERS, BEVERAGES, CHOICE OF CRUSTS, BURGER PIZZA, and CHOICE OF TOPPINGS.

The rest of the page structure is identical to the first screenshot, including the top navigation bar, search bar, cart, welcome message, and menu grid.

Windows taskbar at the bottom shows various pinned icons like File Explorer, Edge, and File History.



This screenshot shows the 'Contact Us' page of the Pizza World website. The header is identical to the previous page, featuring the same navigation and user information. The main content is a contact form titled 'Contact Us' with fields for Email (srinivassg16@gmail.com), Phone No. (+91 9952825638), Order Id (0), Password (Enter Password), and a note about order ID 0. Below the form is a text area for 'How May We Help You?'. At the bottom are 'SUBMIT NOW' and 'HISTORY' buttons. To the right of the form is a green sidebar with the heading 'ADDRESS' (601 Sherwood Ave, San Bernardino) and 'CALL US' (2515469442, 6304468851). The background of the page features a map of a coastal town with streets like Merrick Rd, Seaford, and various avenues labeled.



Pizza World Home Top Categories Your Orders About Us Contact Us Search Cart(0) Welcome sriini25

Profile (User)

Username: sriini25

First Name: srini Last Name: vas

Email: srinivassg16@gmail.com

Phone No: +91 9952825638 Password: Enter Password

Remove Image: [remove](#) Change Image: [choose](#) [Update](#)

@sriini25
srini vas (User)
srinivassg16@gmail.com

Logout

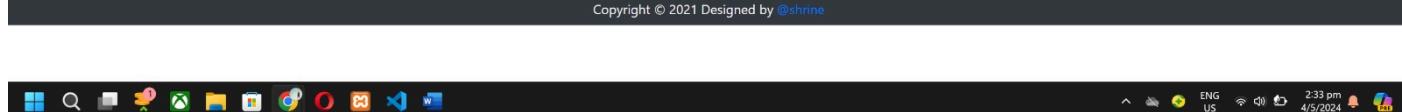
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Pizza World Home Top Categories Your Orders About Us Contact Us Search Cart(0) Welcome sriini25

CHOICE OF TOPPINGS

| | | |
|--|---|--|
|  |  |  |
| Extra Cheese... Rs. 35/- Extra Cheese... Add to Cart Quick View | veg toppings... Rs. 55/- Black Olives, Crisp Capsicum,... Add to Cart Quick View | Non Veg Toppings... Rs. 55/- Barbeque Chicken, Hot 'n' Spicy,... Add to Cart Quick View |

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Pizza World Home Top Categories Your Orders About Us Contact Us

Search Search Cart(0) Welcome sriini25

All Category

CHOICE OF CRUSTS

| | | | |
|--|---|--|--|
| Cheese Burst... Rs. 249/- Crust with oodles of yummy li... | Classic Hand Tossed... Rs. 249/- Dominos traditional hand stre... | Wheat Thin Crust... Rs. 299/- Presenting the light healthie... | Fresh Pan Pizza... Rs. 299/- Tastiest Pan Pizza.Ever. Dom... |
| Add to Cart | Quick View | Add to Cart | Quick View |
| View Details | | | |

WhatsApp YouTube Online Courses - Learn Anything localhost / 127.0.0.1 / opd / use

phpMyAdmin Server: 127.0.0.1 Database: opd Table: users

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0003 seconds.)

SELECT * FROM `users`

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

| | | username | firstName | lastName | email | phone | userType | password | joinDate |
|--------------------------|---|----------|-----------|----------|------------------------|------------|----------|--|---------------------|
| <input type="checkbox"/> | 1 | admin | admin | admin | admin@gmail.com | 1111111111 | 1 | \$2y\$10\$AAfxRFOYb7FdN17N3geiPu/xQx6MnvRGzqjVHIG... | 2021-04-11 11:40:58 |
| <input type="checkbox"/> | 2 | sriini25 | srini | vas | srinivassg16@gmail.com | 9952825638 | 0 | \$2y\$10\$OeNOneGUJrFCaALbd63EhurkV0vdXM8uJa/GaCHNKC7... | 2024-05-03 11:19:06 |

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query Label: Let every user access this bookmark

Bookmark this SQL query

Console

Your Order

localhost/OnlinePizzaDelivery/viewOrder.php

Pizza World Home Top Categories Your Orders About Us Contact Us Search Cart(0) Welcome sriini25

Order Details

| Order Id | Address | Phone No | Amount | Payment Mode | Order Date | Status | Items |
|----------|-------------------------|------------|--------|------------------|---------------------|--------|-------|
| 1 | 1234 Pumpkin, Pother... | 9952825638 | 249 | Cash on Delivery | 2024-05-03 11:20:08 | | |
| 2 | 1234 bel lab, srmiss... | 9952825638 | 199 | Cash on Delivery | 2024-05-04 13:56:10 | | |

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File Edit Selection View Go Run Terminal Help OnlinePizzaDelivery-main

EXPLORER

- ONLINEPIZZADELIVERY...
- OnlinePizzaDelivery
 - admin
 - siteManage.php
 - userManage.php
 - > assets
 - img
 - > partials
 - _checkoutModal.php
 - _dbconnect.php
 - footer.php
 - _handleLogin.php
 - _handleSignup.php
 - _loginModal.php
 - _logout.php
 - _manageCart.php
 - _manageContactUs.php
 - _manageProfile.php
 - _nav.php
 - _orderItemModal.php
 - _orderStatusModal.php
 - signupModal.php
 - about.php
 - contact.php
 - index.php
 - opd.sql
 - search.php
 - viewCart.php
 - viewOrder.php
 - viewPizza.php
 - viewPizzalist.php
 - viewProfile.php
- project_video_link.txt
- README.md

about.php

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css" integrity="sha384-9aItzRpC12Uk9g9baD141NQApFmC26EWaPPXaPx51NLvOwIgCcQcHc8kWuY5g==">
    <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.8.2/css/all.css" integrity="sha384-oS3VJWv+8UjzBfQzYUhtDYW+pj2yciDxpsK1OYPAYjqT0BSqQ1c&lt;/link>
    <title>About Us</title>
    <link rel="icon" href="img/logo.jpg" type="image/x-icon">
    <!-- Google Fonts -->
    <link href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Roboto:300,300i,400,400i,500,500i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
    <!-- Vendor CSS Files -->
    <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
    <link href="assets/vendor/icofont/icofont.min.css" rel="stylesheet">
    <link href="assets/vendor/animate.css/animate.min.css" rel="stylesheet">
    <!-- Template Main CSS File -->
    <link href="assets/css/style.css" rel="stylesheet">
  </head>
  <body>
    <p><?php include 'partials/_dbconnect.php';?><?php include 'partials/_nav.php';?></p>
    <!-- ===== Hero Section ===== -->
    <section id="hero">
      <div class="hero-container">
        <div id="heroCarousel" class="carousel slide carousel-fade" data-ride="carousel">
          <ol class="carousel-indicators" id="hero-carousel-indicators"><li></li><li></li><li></li><li></li><li></li></ol>
          <div class="carousel-inner" role="listbox">
            <!-- Slide 1 -->
            <div class="carousel-item active">
              <div class="carousel-background"></div>
              <div class="carousel-container">
                <div class="carousel-content">
                  <h2 class="animate__animated animate__fadeInDown">Welcome to <span>Pizza World</span></h2>
                  <a href="index.php" class="btn-get-started animate__animated animate__fadeInUp scrollto">Get Started</a>
                </div>
              </div>
            </div>
          </div>
        </div>
      </div>
    </section>
  </body>

```

2 selections (7 characters selected) Spaces 2 UTF-8 LF PHP Go Live Prettier

File Edit Selection View Go Run Terminal Help

OnlinePizzaDelivery-main

EXPLORER

- ONLINEPIZZADELIVERY... OnlinePizzaDelivery admin
- siteManage.php
- userManage.php
- assets
- img
- partials
- _checkoutModal.php
- _dbconnect.php
- _footer.php
- _handleLogin.php
- _handleSignup.php
- _loginModal.php
- _logout.php
- _manageCart.php
- _manageContactUs.php
- _manageProfile.php
- _nav.php
- _orderItemModal.php
- _orderStatusModal.php
- _signupModal.php
- about.php
- contact.php
- index.php**
- opd.sql
- search.php
- viewCart.php
- viewOrder.php
- viewPizza.php
- viewPizzalist.php
- viewProfile.php
- project_video_link.txt
- README.md

OUTLINE

TIMELINE

```

<?php
    $sql = "SELECT * FROM `categories`";
    $result = mysqli_query($conn, $sql);
    while($row = mysqli_fetch_assoc($result)){
        $id = $row['categoryid'];
        $cat = $row['categoryName'];
        $desc = $row['categoryDesc'];
        echo '

<div class="card" style="width: 18rem;">
                
                <div class="card-body">
                    <h5 class="card-title"><a href="viewPizzalist.php?catid=' . $id . '">' . $cat . '</a></h5>
                    <p class="card-text">' . substr($desc, 0, 30) . ' ... </p>
                    <a href="viewPizzalist.php?catid=' . $id . '" class="btn btn-primary">View All</a>
                </div>
            </div>
        </div>';
    }
}


```

Ln 1, Col 1 Spaces:2 UTF-8 LF PHP Go Live Prettier

File Edit Selection View Go Run Terminal Help

OnlinePizzaDelivery-main

EXPLORER

- ONLINEPIZZADELIVERY... OnlinePizzaDelivery admin
- siteManage.php**
- userManage.php
- assets
- img
- partials
- _checkoutModal.php
- _dbconnect.php
- _footer.php
- _handleSignup.php
- _loginModal.php
- _logout.php
- _manageCart.php
- _manageContactUs.php
- _manageProfile.php
- _nav.php
- _orderItemModal.php
- _orderStatusModal.php
- _signupModal.php
- about.php
- contact.php
- index.php
- opd.sql
- search.php
- viewCart.php
- viewOrder.php
- viewPizza.php
- viewPizzalist.php
- viewProfile.php
- project_video_link.txt
- README.md

OUTLINE

TIMELINE

```

<?php
    $sql = "SELECT * FROM `sitedetail`";
    $result = mysqli_query($conn, $sql);
    $row = mysqli_fetch_assoc($result);

    $systemName = $row['systemName'];
    $address = $row['address'];
    $email = $row['email'];
    $contact1 = $row['contact1'];
    $contact2 = $row['contact2'];

    echo '<div class="container-fluid" style="padding-left: 470px; margin-top: 98px">
        <div class="card col-lg-6 p-0">
            <div class="title" style="background-color: #f0f0f0; border-bottom: 1px solid #ccc; padding: 5px; margin-bottom: 10px">
                <h2 class="text-center" style="margin-top: 10px;">' . $systemName . '</h2></em>
            </div>
            <div class="card-body">
                <form action="partials/_siteManage.php" method="post">
                    <div class="form-group">
                        <label for="name" class="control-label">System Name</label>
                        <input type="text" class="form-control" id="name" name="name" value="" required>
                    </div>
                    <div class="form-group">
                        <label for="email" class="control-label">Email</label>
                        <input type="email" class="form-control" id="email" name="email" value="" . $email . "" required>
                    </div>
                    <div class="form-group">
                        <label for="contact" class="control-label">Contact-1</label>
                        <input type="tel" class="form-control" id="contact1" name="contact1" value="" . $contact1 . "" required>
                    </div>
                    <div class="form-group">
                        <label for="contact" class="control-label">Contact-2(optional)</label>
                        <input type="tel" class="form-control" id="contact2" name="contact2" value="" . $contact2 . "" required>
                    </div>
                    <div class="form-group">
                        <label for="address" class="control-label">Address</label>
                        <input type="text" class="form-control" id="address" name="address" value="" . $address . "" required>
                    </div>
                    <center>
                        <button name="updateDetail" class="btn btn-info btn-primary btn-block col-md-2">Save</button>
                    </center>
                </form>
            </div>
        </div>
    </div>';
}

```

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8) Online Course Certification



Siddharth Gaur

In recognition of the completion of the tutorial: **DBMS Course - Master the Fundamentals and Advanced Concepts**

Following are the learning items, which are covered in this tutorial

▶ 74 Video Tutorials 🎓 16 Modules 💡 16 Challenges

19 April 2024

A handwritten signature in black ink, appearing to read "Anshuman Singh".

Anshuman Singh

Co-founder **SCALER**



CERTIFICATE OF EXCELLENCE

THIS CERTIFICATE IS AWARDED TO

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Topics

ANISH PRANAV (RA2211003011624)

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Anshuman Singh

Co-founder **SCALER** 



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SRINIVAS G (RA2211003011687)

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19 April 2024



Anshuman Singh

Co-founder SCALER



9) Conclusion

In conclusion, the development of the online food ordering system database management system (DBMS) project has demonstrated its efficacy in streamlining the food ordering process, enhancing user experience, and optimizing restaurant operations. Through the implementation of a well-structured database schema and efficient query handling, the system successfully facilitates seamless interactions between customers and restaurants, ensuring timely order processing and delivery. Additionally, the incorporation of features such as user authentication, order tracking, and feedback mechanisms contributes to customer satisfaction and loyalty. Overall, the project underscores the significance of robust DBMS solutions in modernizing and improving the efficiency of food service industries.