

Project Final Report - Restaurant Database Management System

Title - Restaurant Database Management System

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Abstract

This project is to maintain the day-to-day activities of a restaurant. It is used by the restaurant's administrator to handle the customer's orders, maintain supplier information, chefs' details, waiters information and ingredients details. The administrator will be able to add, view, update and delete data related to any of the above mentioned entities.

Database Overview and Scope

The restaurant database helps in maintaining the chefs, waiters and customers details. It'll help the administrator to add, update or delete all the details in these tables. We can also add new orders and maintain the waiters list. All these features are in the backend. More functionality can be added by developing a web page and connecting this database with the webpage.

User Requirements

Here are some of the User requirements that can be addressed:

1. We can add or update Customer data.
2. We can add more menu items based on the chef's availability.
3. We can update chef details.
4. Ingredients can be added based on the meals.
5. More Waiters can be added if there are more customers.
6. Supplier details can be updated if there is a change in Supplier.
7. Check what are the ingredients required for a meal.
8. Check the meal details based on a customer's order.
9. Check how many customers a waiter has served.
10. Retrieve meal, and chef details for all the meals ordered by a customer.

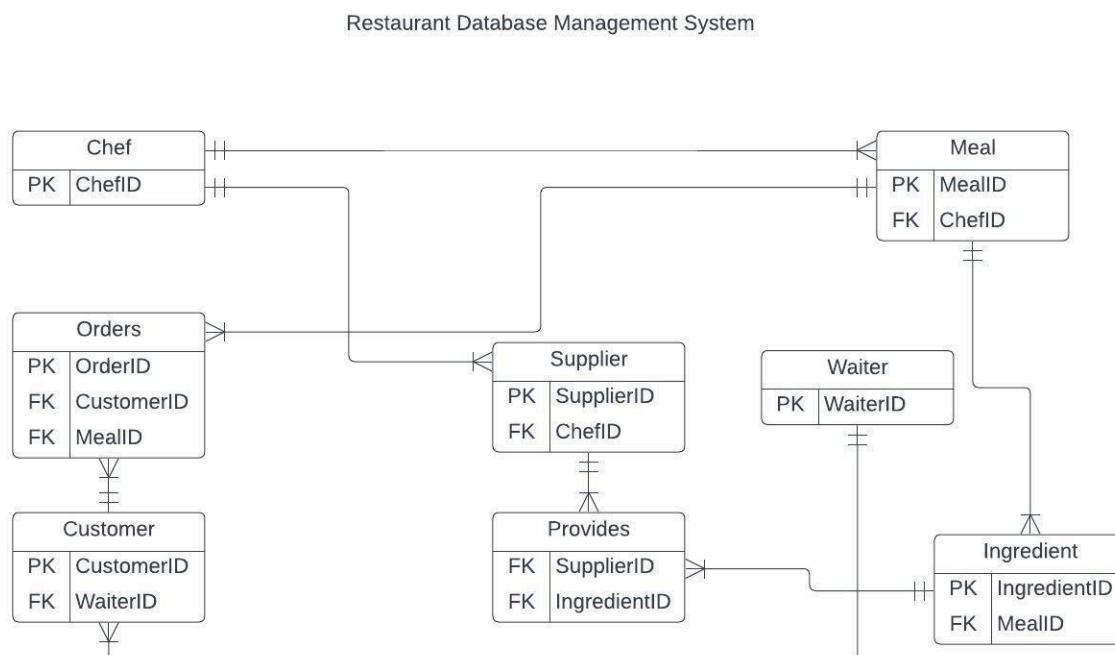
Business Rules

Here are some of the Business Rules for this project:

1. A Customer can place many orders.
2. Multiple orders can be placed by a customer.
3. A chef can prepare multiple meals.
4. Many meals can be prepared by one chef.
5. A meal can contain main ingredients.
6. Multiple ingredients can be present in a meal.

7. A chef can reach out to multiple suppliers for ingredients.
8. Many suppliers can give ingredients to a chef.
9. A meal can be present in many orders.
10. Multiple orders can have a specific meal.
11. A waiter can serve many customers.
12. Multiple customers can be served by a waiter.

Entity-Relationship(ER) Diagram



Data Dictionary

Table Name	Attribute Name	Description	Required?	PK or FK?
Chef	Chef_ID	Chef ID	Y	PK
	Name	Name of the Chef	Y	
	Salary	Chef Salary		

Meal	Meal_ID	Meal ID	Y	PK
	Name	Meal Name	Y	
	Price	Meal Price	Y	
	Chef_ID	Chef who created the meal	Y	FK
Customer	Customer_ID	Customer ID	Y	PK
	Name	Customer Name	Y	
	Phone	Customer Phone No		
	Waiter_ID	Waiter ID	Y	FK
Waiter	Waiter_ID	Waiter ID	Y	PK
	Name	Waiter Name	Y	
	Salary	Waiter Salary		
	Phone	Waiter Phone No		
Ingredients	Ingredient_ID	Ingredient ID	Y	PK
	Name	Ingredient Name	Y	
	Description	Description of the ingredient		
	Meal_ID	Meal in which this ingredient is used	Y	FK
Supplier	Supplier_ID	Supplier ID	Y	PK
	City	City where the supplier is located	Y	
	Supplier_Name	Supplier Name	Y	
	Chef_ID	Chef ID	Y	FK
Orders	OrderID	Order ID	Y	PK

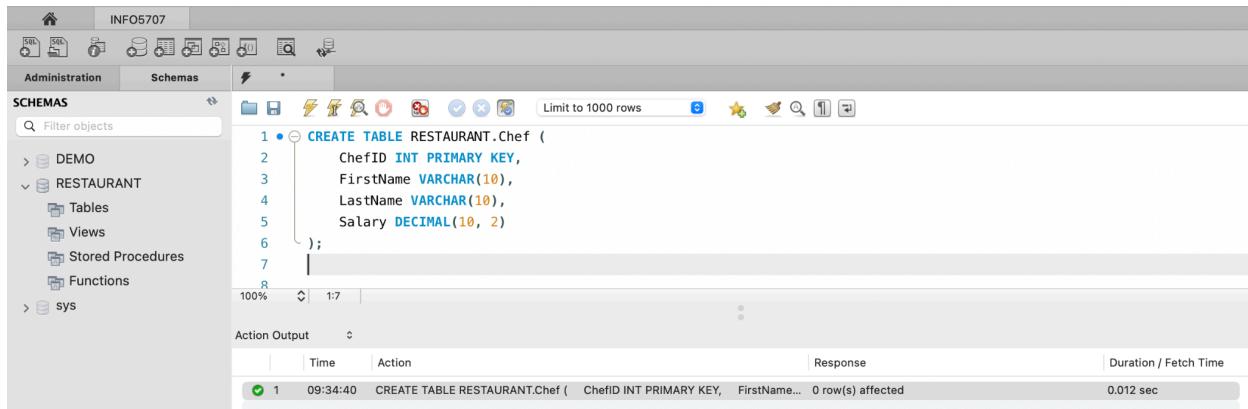
	Customer_ID	Customer ID	Y	FK
	Meal_ID	Chef ID	Y	FK
Provides	Supplier_ID	Supplier_ID	Y	FK
	Ingredient_ID	Ingredient ID	Y	FK

Entity Generation and Data Entry

1. Chef Table

This table contains all the chefs' details.

```
CREATE TABLE RESTAURANT.Chef(
    ChefID INT PRIMARY KEY,
    FirstName VARCHAR(10),
    LastName VARCHAR(10),
    Salary DECIMAL(10, 2)
);
```



The screenshot shows the MySQL Workbench interface. In the left sidebar under 'SCHEMAS', the 'RESTAURANT' schema is selected. In the main pane, the SQL editor contains the following code:

```
1 •  CREATE TABLE RESTAURANT.Chef (
2     ChefID INT PRIMARY KEY,
3     FirstName VARCHAR(10),
4     LastName VARCHAR(10),
5     Salary DECIMAL(10, 2)
6 );
7 |
```

The status bar at the bottom indicates the operation was completed successfully with a duration of 0.012 sec.

```
INSERT INTO RESTAURANT.Chef VALUES (1, 'John', 'Doe', 50000);
INSERT INTO RESTAURANT.Chef VALUES (2, 'Jane', 'Smith', 55000);
INSERT INTO RESTAURANT.Chef VALUES (3, 'Mike', 'Johnson', 60000);
INSERT INTO RESTAURANT.Chef VALUES (4, 'Sara', 'Williams', 52000);
INSERT INTO RESTAURANT.Chef VALUES (5, 'David', 'Miller', 48000);
INSERT INTO RESTAURANT.Chef VALUES (6, 'Emily', 'Jones', 53000);
INSERT INTO RESTAURANT.Chef VALUES (7, 'Chris', 'Brown', 58000);
INSERT INTO RESTAURANT.Chef VALUES (8, 'Anna', 'Davis', 51000);
INSERT INTO RESTAURANT.Chef VALUES (9, 'Brian', 'Clark', 59000);
INSERT INTO RESTAURANT.Chef VALUES (10, 'Megan', 'Wilson', 54000);
INSERT INTO RESTAURANT.Chef VALUES (11, 'Tom', 'Anderson', 56000);
INSERT INTO RESTAURANT.Chef VALUES (12, 'Rachel', 'Thomas', 62000);
INSERT INTO RESTAURANT.Chef VALUES (13, 'Kevin', 'Turner', 48000);
```

```

INSERT INTO RESTAURANT.Chef VALUES (14, 'Linda', 'Hill', 51000);
INSERT INTO RESTAURANT.Chef VALUES (15, 'Mark', 'Evans', 57000);
INSERT INTO RESTAURANT.Chef VALUES (16, 'Julia', 'Carter', 60000);
INSERT INTO RESTAURANT.Chef VALUES (17, 'Alex', 'Robinson', 52000);
INSERT INTO RESTAURANT.Chef VALUES (18, 'Patrick', 'Young', 55000);
INSERT INTO RESTAURANT.Chef VALUES (19, 'Laura', 'Moore', 53000);
INSERT INTO RESTAURANT.Chef VALUES (20, 'Daniel', 'White', 59000);
INSERT INTO RESTAURANT.Chef VALUES (21, 'Jessica', 'Lee', 51000);
INSERT INTO RESTAURANT.Chef VALUES (22, 'Andrew', 'Baker', 54000);
INSERT INTO RESTAURANT.Chef VALUES (23, 'Christine', 'Taylor', 58000);
INSERT INTO RESTAURANT.Chef VALUES (24, 'Robert', 'Harrison', 56000);
INSERT INTO RESTAURANT.Chef VALUES (25, 'Kim', 'Nguyen', 60000);

```

The screenshot shows the execution history of 25 INSERT statements into the RESTAURANT.Chef table. The statements are numbered 1 through 25 and show the insertion of various chefs with their names, last names, and salaries.

Action	Time	Action	Response	Duration / Fetch Time
18	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (16, 'Julia', 'Carter', 60000)	1 row(s) affected	0.000030 sec
19	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (17, 'Alex', 'Robinson', 52000)	1 row(s) affected	0.000030 sec
20	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (18, 'Patrick', 'Young', 55000)	1 row(s) affected	0.000030 sec
21	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (19, 'Laura', 'Moore', 53000)	1 row(s) affected	0.000026 sec
22	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (20, 'Daniel', 'White', 59000)	1 row(s) affected	0.000024 sec
23	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (21, 'Jessica', 'Lee', 51000)	1 row(s) affected	0.000025 sec
24	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (22, 'Andrew', 'Baker', 54000)	1 row(s) affected	0.000022 sec
25	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (23, 'Christine', 'Taylor', 58000)	1 row(s) affected	0.000053 sec
26	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (24, 'Robert', 'Harrison', 56000)	1 row(s) affected	0.000022 sec
27	09:49:08	INSERT INTO RESTAURANT.Chef VALUES (25, 'Kim', 'Nguyen', 60000)	1 row(s) affected	0.000047 sec

2. Waiter Table

This table contains all the Waiters' details.

```

CREATE TABLE RESTAURANT.Waiter (
    WaiterID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Salary DECIMAL(10, 2)
);

```

The screenshot shows the MySQL Workbench interface. In the left sidebar under 'SCHEMAS', the 'RESTAURANT' schema is selected. In the main pane, a SQL editor window displays the creation of a 'Waiter' table:

```

CREATE TABLE RESTAURANT.Waiter (
    WaiterID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Salary DECIMAL(10, 2)
);

```

Below the table creation, the 'Action Output' section shows the execution details:

Action	Time	Response	Duration / Fetch Time
CREATE TABLE RESTAURANT.Waiter (WaiterID INT PRIMARY KEY, FirstName..., 0 row(s) affected	09:53:04	0 row(s) affected	0.014 sec

Following the table creation, 25 'INSERT INTO RESTAURANT.Waiter' statements are listed, each adding a new row to the table with a unique WaiterID from 1 to 25 and corresponding names and salaries.

```

INSERT INTO RESTAURANT.Waiter VALUES (1, 'Michael', 'Smith', 40000.00);
INSERT INTO RESTAURANT.Waiter VALUES (2, 'Emily', 'Johnson', 42000.00);
INSERT INTO RESTAURANT.Waiter VALUES (3, 'Christopher', 'Davis', 38000.00);
INSERT INTO RESTAURANT.Waiter VALUES (4, 'Jessica', 'Brown', 45000.00);
INSERT INTO RESTAURANT.Waiter VALUES (5, 'David', 'Miller', 41000.00);
INSERT INTO RESTAURANT.Waiter VALUES (6, 'Olivia', 'Martinez', 43000.00);
INSERT INTO RESTAURANT.Waiter VALUES (7, 'Andrew', 'Taylor', 39000.00);
INSERT INTO RESTAURANT.Waiter VALUES (8, 'Sophia', 'Anderson', 42000.00);
INSERT INTO RESTAURANT.Waiter VALUES (9, 'Matthew', 'Wilson', 40000.00);
INSERT INTO RESTAURANT.Waiter VALUES (10, 'Emma', 'Jones', 44000.00);
INSERT INTO RESTAURANT.Waiter VALUES (11, 'William', 'Clark', 41000.00);
INSERT INTO RESTAURANT.Waiter VALUES (12, 'Isabella', 'Hill', 43000.00);
INSERT INTO RESTAURANT.Waiter VALUES (13, 'James', 'White', 38000.00);
INSERT INTO RESTAURANT.Waiter VALUES (14, 'Ava', 'Thompson', 40000.00);
INSERT INTO RESTAURANT.Waiter VALUES (15, 'Daniel', 'Turner', 45000.00);
INSERT INTO RESTAURANT.Waiter VALUES (16, 'Mia', 'Moore', 42000.00);
INSERT INTO RESTAURANT.Waiter VALUES (17, 'Benjamin', 'Baker', 39000.00);
INSERT INTO RESTAURANT.Waiter VALUES (18, 'Amelia', 'Robinson', 43000.00);
INSERT INTO RESTAURANT.Waiter VALUES (19, 'Joseph', 'Young', 41000.00);
INSERT INTO RESTAURANT.Waiter VALUES (20, 'Abigail', 'Carter', 44000.00);
INSERT INTO RESTAURANT.Waiter VALUES (21, 'John', 'Lee', 42000.00);
INSERT INTO RESTAURANT.Waiter VALUES (22, 'Grace', 'Harrison', 40000.00);
INSERT INTO RESTAURANT.Waiter VALUES (23, 'Nicholas', 'Nguyen', 43000.00);
INSERT INTO RESTAURANT.Waiter VALUES (24, 'Ella', 'Kim', 45000.00);
INSERT INTO RESTAURANT.Waiter VALUES (25, 'Logan', 'Ng', 41000.00);

```

```

1 • INSERT INTO RESTAURANT.Waiter VALUES (1, 'Michael', 'Smith', 40000.00);
2 • INSERT INTO RESTAURANT.Waiter VALUES (2, 'Emily', 'Johnson', 42000.00);
3 • INSERT INTO RESTAURANT.Waiter VALUES (3, 'Christopher', 'Davis', 38000.00);
4 • INSERT INTO RESTAURANT.Waiter VALUES (4, 'Jessica', 'Brown', 45000.00);
5 • INSERT INTO RESTAURANT.Waiter VALUES (5, 'David', 'Miller', 41000.00);
6 • INSERT INTO RESTAURANT.Waiter VALUES (6, 'Olivia', 'Martinez', 43000.00);
7 • INSERT INTO RESTAURANT.Waiter VALUES (7, 'Andrew', 'Taylor', 39000.00);
8 • INSERT INTO RESTAURANT.Waiter VALUES (8, 'Sophia', 'Anderson', 42000.00);
9 • INSERT INTO RESTAURANT.Waiter VALUES (9, 'Matthew', 'Wilson', 40000.00);
10 • INSERT INTO RESTAURANT.Waiter VALUES (10, 'Emma', 'Jones', 44000.00);
11 • INSERT INTO RESTAURANT.Waiter VALUES (11, 'William', 'Clark', 41000.00);
12 • INSERT INTO RESTAURANT.Waiter VALUES (12, 'Isabella', 'Hill', 43000.00);
13 • INSERT INTO RESTAURANT.Waiter VALUES (13, 'James', 'White', 38000.00);
14 • INSERT INTO RESTAURANT.Waiter VALUES (14, 'Ava', 'Thompson', 40000.00);
15 • INSERT INTO RESTAURANT.Waiter VALUES (15, 'Daniel', 'Turner', 45000.00);
16 • INSERT INTO RESTAURANT.Waiter VALUES (16, 'Mia', 'Moore', 42000.00);
17 • INSERT INTO RESTAURANT.Waiter VALUES (17, 'Benjamin', 'Baker', 39000.00);
18 • INSERT INTO RESTAURANT.Waiter VALUES (18, 'Amelia', 'Robinson', 43000.00);
19 • INSERT INTO RESTAURANT.Waiter VALUES (19, 'Joseph', 'Young', 41000.00);
20 • INSERT INTO RESTAURANT.Waiter VALUES (20, 'Abigail', 'Carter', 44000.00);
21 • INSERT INTO RESTAURANT.Waiter VALUES (21, 'John', 'Lee', 42000.00);
22 • INSERT INTO RESTAURANT.Waiter VALUES (22, 'Grace', 'Harrison', 40000.00);

```

Action Output	Time	Action	Response	Duration / Fetch Time
15	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (15, 'Daniel', 'Turner', 45000.00)	1 row(s) affected	0.00039 sec
16	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (16, 'Mia', 'Moore', 42000.00)	1 row(s) affected	0.00041 sec
17	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (17, 'Benjamin', 'Baker', 39000.00)	1 row(s) affected	0.00037 sec
18	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (18, 'Amelia', 'Robinson', 43000.00)	1 row(s) affected	0.00034 sec
19	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (19, 'Joseph', 'Young', 41000.00)	1 row(s) affected	0.00036 sec
20	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (20, 'Abigail', 'Carter', 44000.00)	1 row(s) affected	0.00028 sec
21	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (21, 'John', 'Lee', 42000.00)	1 row(s) affected	0.00046 sec
22	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (22, 'Grace', 'Harrison', 40000.00)	1 row(s) affected	0.00029 sec
23	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (23, 'Nicholas', 'Nguyen', 43000.00)	1 row(s) affected	0.00030 sec
24	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (24, 'Ella', 'Kim', 45000.00)	1 row(s) affected	0.00033 sec
25	09:59:11	INSERT INTO RESTAURANT.Waiter VALUES (25, 'Logan', 'Ng', 41000.00)	1 row(s) affected	0.00034 sec

Query Completed

3. Meal Table

This table contains all the meals' details along with which chef created the meal.

```

CREATE TABLE RESTAURANT.Meal (
    MealID INT PRIMARY KEY,
    Name VARCHAR(100),
    Price DECIMAL(10, 2),
    ChefID INT,
    FOREIGN KEY (ChefID) REFERENCES Chef(ChefID)
);

```

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

- Schemas:** The left sidebar shows the database structure with SCHEMAS, DEMO, RESTAURANT (Tables, Views, Stored Procedures, Functions), and sys.
- Query Editor:** The main area displays the SQL code for creating the RESTAURANT.Meal table and inserting 25 rows of meal data.
- Action Output:** A table at the bottom shows the execution details: 1 row(s) affected in 0.020 sec.

```

1 • CREATE TABLE RESTAURANT.Meal (
2     MealID INT PRIMARY KEY,
3     Name VARCHAR(100),
4     Price DECIMAL(10, 2),
5     ChefID INT,
6     FOREIGN KEY (ChefID) REFERENCES Chef(ChefID)
7 );
8
9
100% 3:7
Action Output
Time Action Response Duration / Fetch Time
1 10:06:20 CREATE TABLE RESTAURANT.Meal ( MealID INT PRIMARY KEY, Name VAR... 0 row(s) affected 0.020 sec

```

```

INSERT INTO RESTAURANT.Meal VALUES (1, 'Spaghetti Bolognese', 15.99, 6);
INSERT INTO RESTAURANT.Meal VALUES (2, 'Chicken Alfredo', 18.99, 2);
INSERT INTO RESTAURANT.Meal VALUES (3, 'Grilled Salmon', 22.50, 8);
INSERT INTO RESTAURANT.Meal VALUES (4, 'Margherita Pizza', 12.99, 4);
INSERT INTO RESTAURANT.Meal VALUES (5, 'Caesar Salad', 8.99, 10);
INSERT INTO RESTAURANT.Meal VALUES (6, 'Beef Stir-Fry', 16.50, 1);
INSERT INTO RESTAURANT.Meal VALUES (7, 'Vegetarian Lasagna', 14.99, 12);
INSERT INTO RESTAURANT.Meal VALUES (8, 'Shrimp Scampi', 20.50, 3);
INSERT INTO RESTAURANT.Meal VALUES (9, 'Penne Arrabiata', 13.99, 14);
INSERT INTO RESTAURANT.Meal VALUES (10, 'Caprese Sandwich', 10.50, 5);
INSERT INTO RESTAURANT.Meal VALUES (11, 'Teriyaki Chicken Bowl', 15.99, 10);
INSERT INTO RESTAURANT.Meal VALUES (12, 'Mushroom Risotto', 17.50, 15);
INSERT INTO RESTAURANT.Meal VALUES (13, 'BBQ Pulled Pork Sandwich', 14.99, 3);
INSERT INTO RESTAURANT.Meal VALUES (14, 'Greek Salad', 9.99, 20);
INSERT INTO RESTAURANT.Meal VALUES (15, 'Lemon Garlic Chicken', 19.50, 25);
INSERT INTO RESTAURANT.Meal VALUES (16, 'Vegetable Curry', 16.99, 1);
INSERT INTO RESTAURANT.Meal VALUES (17, 'Pepperoni Pizza', 13.50, 2);
INSERT INTO RESTAURANT.Meal VALUES (18, 'Cajun Shrimp Pasta', 21.99, 23);
INSERT INTO RESTAURANT.Meal VALUES (19, 'Eggplant Parmesan', 14.50, 4);
INSERT INTO RESTAURANT.Meal VALUES (20, 'Tuna Nicoise Salad', 12.99, 15);
INSERT INTO RESTAURANT.Meal VALUES (21, 'Beef Tacos', 15.50, 1);
INSERT INTO RESTAURANT.Meal VALUES (22, 'Chicken Caesar Wrap', 11.99, 22);
INSERT INTO RESTAURANT.Meal VALUES (23, 'Seafood Paella', 24.50, 3);
INSERT INTO RESTAURANT.Meal VALUES (24, 'Vegetable Pad Thai', 18.99, 4);
INSERT INTO RESTAURANT.Meal VALUES (25, 'Mango Salsa Chicken', 17.50, 5);

```

```

1 • INSERT INTO RESTAURANT.Meal VALUES (1, 'Spaghetti Bolognese', 15.99, 6);
2 • INSERT INTO RESTAURANT.Meal VALUES (2, 'Chicken Alfredo', 18.99, 2);
3 • INSERT INTO RESTAURANT.Meal VALUES (3, 'Grilled Salmon', 22.50, 8);
4 • INSERT INTO RESTAURANT.Meal VALUES (4, 'Margherita Pizza', 12.99, 4);
5 • INSERT INTO RESTAURANT.Meal VALUES (5, 'Caesar Salad', 8.99, 10);
6 • INSERT INTO RESTAURANT.Meal VALUES (6, 'Beef Stir-Fry', 16.50, 1);
7 • INSERT INTO RESTAURANT.Meal VALUES (7, 'Vegetarian Lasagna', 14.99, 12);
8 • INSERT INTO RESTAURANT.Meal VALUES (8, 'Shrimp Scampi', 20.50, 3);
9 • INSERT INTO RESTAURANT.Meal VALUES (9, 'Penne Arrabbiata', 13.99, 14);
10 • INSERT INTO RESTAURANT.Meal VALUES (10, 'Caprese Sandwich', 10.50, 5);
11 • INSERT INTO RESTAURANT.Meal VALUES (11, 'Teriyaki Chicken Bowl', 15.99, 10);
12 • INSERT INTO RESTAURANT.Meal VALUES (12, 'Mushroom Risotto', 17.50, 15);
13 • INSERT INTO RESTAURANT.Meal VALUES (13, 'BBQ Pulled Pork Sandwich', 14.99, 3);
14 • INSERT INTO RESTAURANT.Meal VALUES (14, 'Greek Salad', 9.99, 20);
15 • INSERT INTO RESTAURANT.Meal VALUES (15, 'Lemon Garlic Chicken', 19.50, 25);
16 • INSERT INTO RESTAURANT.Meal VALUES (16, 'Vegetable Curry', 16.99, 1);
17 • INSERT INTO RESTAURANT.Meal VALUES (17, 'Pepperoni Pizza', 13.50, 2);
18 • INSERT INTO RESTAURANT.Meal VALUES (18, 'Cajun Shrimp Pasta', 21.99, 23);
19 • INSERT INTO RESTAURANT.Meal VALUES (19, 'Eggplant Parmesan', 14.50, 4);

```

Action	Time	Response	Duration / Fetch Time
13	10:14:43	1 row(s) affected	0.00047 sec
14	10:14:43	1 row(s) affected	0.00040 sec
15	10:14:43	1 row(s) affected	0.00028 sec
16	10:14:43	1 row(s) affected	0.00026 sec
17	10:14:43	1 row(s) affected	0.00024 sec
18	10:14:43	1 row(s) affected	0.00030 sec
19	10:14:43	1 row(s) affected	0.00029 sec
20	10:14:43	1 row(s) affected	0.00024 sec
21	10:14:43	1 row(s) affected	0.00034 sec
22	10:14:43	1 row(s) affected	0.00029 sec
23	10:14:43	1 row(s) affected	0.00042 sec
24	10:14:43	1 row(s) affected	0.00025 sec
25	10:14:43	1 row(s) affected	0.00025 sec
26	10:14:43	1 row(s) affected	0.00028 sec

4. Customer Table

This table contains all the customers' details.

```

CREATE TABLE RESTAURANT.Customer (
    CustomerID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Phone VARCHAR(15),
    WaiterID INT,
    FOREIGN KEY (WaiterID) REFERENCES Waiter(WaiterID)
);

```

The screenshot shows a database interface with the following details:

- Schemas:** DEMO, RESTAURANT (Tables, Views, Stored Procedures, Functions), sys.
- Code Editor:** A SQL query window containing the creation of the RESTAURANT.Customer table and its insertion of 25 rows.
- Action Output:** A table showing the execution of the query at 10:18:17, resulting in 0 rows affected in 0.015 seconds.

```

CREATE TABLE RESTAURANT.Customer (
    CustomerID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Phone VARCHAR(15),
    WaiterID INT,
    FOREIGN KEY (WaiterID) REFERENCES Waiter(WaiterID)
);

```

Action	Time	Response	Duration / Fetch Time
CREATE TABLE RESTAURANT.Customer (CustomerID INT PRIMARY KEY,...	10:18:17	0 row(s) affected	0.015 sec

```

INSERT INTO RESTAURANT.Customer VALUES (1, 'Alice', 'Johnson', '555-1234', 10);
INSERT INTO RESTAURANT.Customer VALUES (2, 'Bob', 'Smith', '555-5678', 22);
INSERT INTO RESTAURANT.Customer VALUES (3, 'Charlie', 'Davis', '555-9876', 3);
INSERT INTO RESTAURANT.Customer VALUES (4, 'David', 'Anderson', '555-4321', 24);
INSERT INTO RESTAURANT.Customer VALUES (5, 'Eva', 'Miller', '555-8765', 15);
INSERT INTO RESTAURANT.Customer VALUES (6, 'Frank', 'Brown', '555-2345', 1);
INSERT INTO RESTAURANT.Customer VALUES (7, 'Grace', 'Taylor', '555-6789', 2);
INSERT INTO RESTAURANT.Customer VALUES (8, 'Harry', 'Wilson', '555-5432', 13);
INSERT INTO RESTAURANT.Customer VALUES (9, 'Ivy', 'Clark', '555-8765', 14);
INSERT INTO RESTAURANT.Customer VALUES (10, 'Jack', 'Moore', '555-9876', 18);
INSERT INTO RESTAURANT.Customer VALUES (11, 'Kelly', 'Hill', '555-1234', 10);
INSERT INTO RESTAURANT.Customer VALUES (12, 'Leo', 'White', '555-2345', 20);
INSERT INTO RESTAURANT.Customer VALUES (13, 'Mia', 'Jones', '555-8765', 24);
INSERT INTO RESTAURANT.Customer VALUES (14, 'Nick', 'Smith', '555-9876', 14);
INSERT INTO RESTAURANT.Customer VALUES (15, 'Olivia', 'Miller', '555-5432', 16);
INSERT INTO RESTAURANT.Customer VALUES (16, 'Paul', 'Brown', '555-1234', 6);
INSERT INTO RESTAURANT.Customer VALUES (17, 'Quinn', 'Taylor', '555-2345', 17);
INSERT INTO RESTAURANT.Customer VALUES (18, 'Ryan', 'Wilson', '555-5678', 7);
INSERT INTO RESTAURANT.Customer VALUES (19, 'Sara', 'Clark', '555-8765', 18);
INSERT INTO RESTAURANT.Customer VALUES (20, 'Tom', 'Moore', '555-9876', 8);
INSERT INTO RESTAURANT.Customer VALUES (21, 'Ursula', 'Hill', '555-5432', 19);
INSERT INTO RESTAURANT.Customer VALUES (22, 'Vincent', 'White', '555-1234', 9);
INSERT INTO RESTAURANT.Customer VALUES (23, 'Wendy', 'Jones', '555-2345', 9);
INSERT INTO RESTAURANT.Customer VALUES (24, 'Xander', 'Smith', '555-5678', 2);
INSERT INTO RESTAURANT.Customer VALUES (25, 'Yara', 'Miller', '555-8765', 5);

```

```

1 • INSERT INTO RESTAURANT.Customer VALUES (1, 'Alice', 'Johnson', '555-1234', 10);
2 • INSERT INTO RESTAURANT.Customer VALUES (2, 'Bob', 'Smith', '555-5678', 22);
3 • INSERT INTO RESTAURANT.Customer VALUES (3, 'Charlie', 'Davis', '555-9876', 3);
4 • INSERT INTO RESTAURANT.Customer VALUES (4, 'David', 'Anderson', '555-4321', 24);
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6 • INSERT INTO RESTAURANT.Customer VALUES (6, 'Frank', 'Brown', '555-2345', 1);
7 • INSERT INTO RESTAURANT.Customer VALUES (7, 'Grace', 'Taylor', '555-6789', 2);
8 • INSERT INTO RESTAURANT.Customer VALUES (8, 'Harry', 'Wilson', '555-5432', 13);
9 • INSERT INTO RESTAURANT.Customer VALUES (9, 'Ivy', 'Clark', '555-8765', 14);
10 • INSERT INTO RESTAURANT.Customer VALUES (10, 'Jack', 'Moore', '555-9876', 18);
11 • INSERT INTO RESTAURANT.Customer VALUES (11, 'Kelly', 'Hill', '555-1234', 10);
12 • INSERT INTO RESTAURANT.Customer VALUES (12, 'Leo', 'White', '555-2345', 20);
13 • INSERT INTO RESTAURANT.Customer VALUES (13, 'Mia', 'Jones', '555-8765', 24);
14 • INSERT INTO RESTAURANT.Customer VALUES (14, 'Nick', 'Smith', '555-9876', 14);
15 • INSERT INTO RESTAURANT.Customer VALUES (15, 'Olivia', 'Miller', '555-5432', 16);
16 • INSERT INTO RESTAURANT.Customer VALUES (16, 'Paul', 'Brown', '555-1234', 6);
17 • INSERT INTO RESTAURANT.Customer VALUES (17, 'Quinn', 'Taylor', '555-2345', 17);
18 • INSERT INTO RESTAURANT.Customer VALUES (18, 'Ryan', 'Wilson', '555-5678', 7);
19 • INSERT INTO RESTAURANT.Customer VALUES (19, 'Sara', 'Clark', '555-8765', 18);
20 • INSERT INTO RESTAURANT.Customer VALUES (20, 'Tom', 'Moore', '555-9876', 8);
21 • INSERT INTO RESTAURANT.Customer VALUES (21, 'Ursula', 'Hill', '555-5432', 19);
22 • INSERT INTO RESTAURANT.Customer VALUES (22, 'Vincent', 'White', '555-1234', 9);

```

Action Output	Time	Action	Response	Duration / Fetch Time
16	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (15, 'Olivia', 'Miller', '555-5432', ... 1 row(s) affected		0.00035 sec
17	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (16, 'Paul', 'Brown', '555-1234', ... 1 row(s) affected		0.00040 sec
18	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (17, 'Quinn', 'Taylor', '555-2345', ... 1 row(s) affected		0.00031 sec
19	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (18, 'Ryan', 'Wilson', '555-5678', ... 1 row(s) affected		0.00028 sec
20	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (19, 'Sara', 'Clark', '555-8765', ... 1 row(s) affected		0.00056 sec
21	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (20, 'Tom', 'Moore', '555-9876', ... 1 row(s) affected		0.00029 sec
22	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (21, 'Ursula', 'Hill', '555-5432', ... 1 row(s) affected		0.00029 sec
23	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (22, 'Vincent', 'White', '555-1234', ... 1 row(s) affected		0.00029 sec
24	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (23, 'Wendy', 'Jones', '555-2345', ... 1 row(s) affected		0.00032 sec
25	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (24, 'Xander', 'Smith', '555-5678', ... 1 row(s) affected		0.00035 sec
26	10:25:12	INSERT INTO RESTAURANT.Customer VALUES (25, 'Yara', 'Miller', '555-8765', 5) 1 row(s) affected		0.00044 sec

5. Ingredients Table

This table contains ingredients' details along with their descriptions.

```

CREATE TABLE RESTAURANT.Ingredients (
    IngredientID INT PRIMARY KEY,
    Name VARCHAR(50),
    Description VARCHAR(255),
    MealID INT,
    FOREIGN KEY (MealID) REFERENCES Meal(MealID)
);

```

```

1 • CREATE TABLE RESTAURANT.Ingredients (
2     IngredientID INT PRIMARY KEY,
3     Name VARCHAR(50),
4     Description VARCHAR(255),
5     MealID INT,
6     FOREIGN KEY (MealID) REFERENCES Meal(MealID)
7 );

```

Action Output	Time	Action	Response	Duration / Fetch Time
1	11:04:01	CREATE TABLE RESTAURANT.Ingredients (IngredientID INT PRIMARY KEY,... 0 row(s) affected		0.013 sec

```
INSERT INTO RESTAURANT.Ingredients VALUES (1, 'Tomato', 'Ripe red tomato', 1);
INSERT INTO RESTAURANT.Ingredients VALUES (2, 'Chicken Breast', 'Boneless, skinless chicken breast', 2);
INSERT INTO RESTAURANT.Ingredients VALUES (3, 'Salmon Fillet', 'Fresh salmon fillet', 3);
INSERT INTO RESTAURANT.Ingredients VALUES (4, 'Pizza Dough', 'Homemade pizza dough', 4);
INSERT INTO RESTAURANT.Ingredients VALUES (5, 'Romaine Lettuce', 'Crisp Romaine lettuce', 5);
INSERT INTO RESTAURANT.Ingredients VALUES (6, 'Beef Sirloin', 'Sliced beef sirloin', 6);
INSERT INTO RESTAURANT.Ingredients VALUES (7, 'Lasagna Noodles', 'Boiled lasagna noodles', 7);
INSERT INTO RESTAURANT.Ingredients VALUES (8, 'Shrimp', 'Fresh shrimp, peeled and deveined', 8);
INSERT INTO RESTAURANT.Ingredients VALUES (9, 'Penne Pasta', 'Cooked penne pasta', 9);
INSERT INTO RESTAURANT.Ingredients VALUES (10, 'Ciabatta Bread', 'Fresh ciabatta bread', 10);
INSERT INTO RESTAURANT.Ingredients VALUES (11, 'Teriyaki Sauce', 'Homemade teriyaki sauce', 11);
INSERT INTO RESTAURANT.Ingredients VALUES (12, 'Arborio Rice', 'Arborio rice for risotto', 12);
INSERT INTO RESTAURANT.Ingredients VALUES (13, 'Pulled Pork', 'Slow-cooked pulled pork', 13);
INSERT INTO RESTAURANT.Ingredients VALUES (14, 'Feta Cheese', 'Crumbled feta cheese', 14);
INSERT INTO RESTAURANT.Ingredients VALUES (15, 'Lemon', 'Freshly squeezed lemon juice', 15);
INSERT INTO RESTAURANT.Ingredients VALUES (16, 'Mixed Vegetables', 'Assorted mixed vegetables', 16);
INSERT INTO RESTAURANT.Ingredients VALUES (17, 'Pepperoni', 'Sliced pepperoni', 17);
INSERT INTO RESTAURANT.Ingredients VALUES (18, 'Cajun Seasoning', 'Spicy Cajun seasoning', 18);
INSERT INTO RESTAURANT.Ingredients VALUES (19, 'Eggplant', 'Fresh eggplant slices', 19);
INSERT INTO RESTAURANT.Ingredients VALUES (20, 'Tuna', 'Canned tuna in water', 20);
INSERT INTO RESTAURANT.Ingredients VALUES (21, 'Ground Beef', 'Lean ground beef for tacos', 21);
INSERT INTO RESTAURANT.Ingredients VALUES (22, 'Chicken Strips', 'Grilled chicken strips', 22);
INSERT INTO RESTAURANT.Ingredients VALUES (23, 'Assorted Seafood', 'Mix of fresh seafood', 23);
INSERT INTO RESTAURANT.Ingredients VALUES (24, 'Rice Noodles', 'Thin rice noodles for Pad Thai', 24);
INSERT INTO RESTAURANT.Ingredients VALUES (25, 'Chicken Breast', 'Boneless, skinless chicken breast', 25);
```

```

1 • INSERT INTO RESTAURANT.Ingredients VALUES (1, 'Tomato', 'Ripe red tomato', 1);
2 • INSERT INTO RESTAURANT.Ingredients VALUES (2, 'Chicken Breast', 'Boneless, skinless chicken breast', 2);
3 • INSERT INTO RESTAURANT.Ingredients VALUES (3, 'Salmon Fillet', 'Fresh salmon fillet', 3);
4 • INSERT INTO RESTAURANT.Ingredients VALUES (4, 'Pizza Dough', 'Homemade pizza dough', 4);
5 • INSERT INTO RESTAURANT.Ingredients VALUES (5, 'Romaine Lettuce', 'Crisp Romaine lettuce', 5);
6 • INSERT INTO RESTAURANT.Ingredients VALUES (6, 'Beef Sirloin', 'Sliced beef sirloin', 6);
7 • INSERT INTO RESTAURANT.Ingredients VALUES (7, 'Lasagna Noodles', 'Boiled lasagna noodles', 7);
8 • INSERT INTO RESTAURANT.Ingredients VALUES (8, 'Shrimp', 'Fresh shrimp, peeled and deveined', 8);
9 • INSERT INTO RESTAURANT.Ingredients VALUES (9, 'Penne Pasta', 'Cooked penne pasta', 9);
10 • INSERT INTO RESTAURANT.Ingredients VALUES (10, 'Ciabatta Bread', 'Fresh ciabatta bread', 10);
11 • INSERT INTO RESTAURANT.Ingredients VALUES (11, 'Teriyaki Sauce', 'Homemade teriyaki sauce', 11);
12 • INSERT INTO RESTAURANT.Ingredients VALUES (12, 'Arborio Rice', 'Arborio rice for risotto', 12);
13 • INSERT INTO RESTAURANT.Ingredients VALUES (13, 'Pulled Pork', 'Slow-cooked pulled pork', 13);
14 • INSERT INTO RESTAURANT.Ingredients VALUES (14, 'Feta Cheese', 'Crumbled feta cheese', 14);
15 • INSERT INTO RESTAURANT.Ingredients VALUES (15, 'Lemon', 'Freshly squeezed lemon juice', 15);
16 • INSERT INTO RESTAURANT.Ingredients VALUES (16, 'Mixed Vegetables', 'Assorted mixed vegetables', 16);
17 • INSERT INTO RESTAURANT.Ingredients VALUES (17, 'Pepperoni', 'Sliced pepperoni', 17);
18 • INSERT INTO RESTAURANT.Ingredients VALUES (18, 'Cajun Seasoning', 'Spicy Cajun seasoning', 18);
19 • INSERT INTO RESTAURANT.Ingredients VALUES (19, 'Eggplant', 'Fresh eggpla...', 19);
20 • INSERT INTO RESTAURANT.Ingredients VALUES (20, 'Tuna', 'Canned tuna in water', 20);
21 • INSERT INTO RESTAURANT.Ingredients VALUES (21, 'Ground Beef', 'Lean ground beef for tacos', 21);
22 • INSERT INTO RESTAURANT.Ingredients VALUES (22, 'Chicken Strips', 'Grilled chicken strips', 22);
23 • INSERT INTO RESTAURANT.Ingredients VALUES (23, 'Assorted Seafood', 'Mix of fresh seafood', 23);
24 • INSERT INTO RESTAURANT.Ingredients VALUES (24, 'Rice Noodles', 'Thin rice... for Pad Thai', 24);

```

Action Output	Time	Action	Response	Duration / Fetch Time
17	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (17, 'Pepperoni', 'Sliced pepperoni', 1 row(s) affected)		0.00026 sec
18	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (18, 'Cajun Seasoning', 'Spicy Cajun seasoning', 1 row(s) affected)		0.00028 sec
19	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (19, 'Eggplant', 'Fresh eggplant', 1 row(s) affected)		0.00026 sec
20	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (20, 'Tuna', 'Canned tuna in water', 1 row(s) affected)		0.00029 sec
21	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (21, 'Ground Beef', 'Lean ground beef for tacos', 1 row(s) affected)		0.00025 sec
22	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (22, 'Chicken Strips', 'Grilled chicken strips', 1 row(s) affected)		0.00024 sec
23	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (23, 'Assorted Seafood', 'Mix of fresh seafood', 1 row(s) affected)		0.00029 sec
24	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (24, 'Rice Noodles', 'Thin rice... for Pad Thai', 1 row(s) affected)		0.00043 sec
25	11:14:43	INSERT INTO RESTAURANT.Ingredients VALUES (25, 'Chicken Breast', 'Boneless, skinless chicken breast', 1 row(s) affected)		0.00030 sec

6. Supplier Table

This table contains supplier details.

```

CREATE TABLE RESTAURANT.Supplier (
    SupplierID INT PRIMARY KEY,
    SupplierName VARCHAR(100),
    City VARCHAR(50),
    ChefID INT,
    FOREIGN KEY (ChefID) REFERENCES Chef(ChefID)
);

```

The screenshot shows a database interface with the following details:

- Schemas:** DEMO, RESTAURANT (Tables, Views, Stored Procedures, Functions), sys.
- Code Editor:** A SQL query window containing the creation of the 'Supplier' table and its data insertion.
- Action Output:** A table showing the execution of the query.

```

CREATE TABLE RESTAURANT.Supplier (
    SupplierID INT PRIMARY KEY,
    SupplierName VARCHAR(100),
    City VARCHAR(50),
    ChefID INT,
    FOREIGN KEY (ChefID) REFERENCES Chef(ChefID)
);

```

Action	Time	Response	Duration / Fetch Time
CREATE TABLE RESTAURANT.Supplier (SupplierID INT PRIMARY KEY, Su...)	11:18:12	0 row(s) affected	0.012 sec

```

INSERT INTO RESTAURANT.Supplier VALUES (1, 'Fresh Produce Co.', 'New York', 1);
INSERT INTO RESTAURANT.Supplier VALUES (2, 'Meat Masters', 'Chicago', 2);
INSERT INTO RESTAURANT.Supplier VALUES (3, 'Seafood Delights', 'Los Angeles', 3);
INSERT INTO RESTAURANT.Supplier VALUES (4, 'Dough Dynasty', 'San Francisco', 4);
INSERT INTO RESTAURANT.Supplier VALUES (5, 'Leafy Greens Inc.', 'Miami', 5);
INSERT INTO RESTAURANT.Supplier VALUES (6, 'Grains Galore', 'Houston', 1);
INSERT INTO RESTAURANT.Supplier VALUES (7, 'Cheese Haven', 'Dallas', 2);
INSERT INTO RESTAURANT.Supplier VALUES (8, 'Shellfish Paradise', 'Seattle', 3);
INSERT INTO RESTAURANT.Supplier VALUES (9, 'Pasta Emporium', 'Boston', 4);
INSERT INTO RESTAURANT.Supplier VALUES (10, 'Bakery Bliss', 'Denver', 5);
INSERT INTO RESTAURANT.Supplier VALUES (11, 'Soy Sauce Central', 'New York', 1);
INSERT INTO RESTAURANT.Supplier VALUES (12, 'Rice World', 'Chicago', 2);
INSERT INTO RESTAURANT.Supplier VALUES (13, 'Pork Producers', 'Los Angeles', 3);
INSERT INTO RESTAURANT.Supplier VALUES (14, 'Dairy Delights', 'San Francisco', 4);
INSERT INTO RESTAURANT.Supplier VALUES (15, 'Citrus Sensations', 'Miami', 5);
INSERT INTO RESTAURANT.Supplier VALUES (16, 'Vegetable Valley', 'Houston', 1);
INSERT INTO RESTAURANT.Supplier VALUES (17, 'Pepperoni Palace', 'Dallas', 2);
INSERT INTO RESTAURANT.Supplier VALUES (18, 'Spice City', 'Seattle', 3);
INSERT INTO RESTAURANT.Supplier VALUES (19, 'Eggplant Emporium', 'Boston', 4);
INSERT INTO RESTAURANT.Supplier VALUES (20, 'Tuna Treasures', 'Denver', 5);
INSERT INTO RESTAURANT.Supplier VALUES (21, 'Beef Bonanza', 'New York', 1);
INSERT INTO RESTAURANT.Supplier VALUES (22, 'Chicken Coop', 'Chicago', 2);
INSERT INTO RESTAURANT.Supplier VALUES (23, 'Seafood Sensation', 'Los Angeles', 3);
INSERT INTO RESTAURANT.Supplier VALUES (24, 'Asian Aromas', 'San Francisco', 4);
INSERT INTO RESTAURANT.Supplier VALUES (25, 'Mango Madness', 'Miami', 5);

```

```

1 • INSERT INTO RESTAURANT.Supplier VALUES (1, 'Fresh Produce Co.', 'New York', 1);
2 • INSERT INTO RESTAURANT.Supplier VALUES (2, 'Meat Masters', 'Chicago', 2);
3 • INSERT INTO RESTAURANT.Supplier VALUES (3, 'Seafood Delights', 'Los Angeles', 3);
4 • INSERT INTO RESTAURANT.Supplier VALUES (4, 'Dough Dynasty', 'San Francisco', 4);
5 • INSERT INTO RESTAURANT.Supplier VALUES (5, 'Leafy Greens Inc.', 'Miami', 5);
6 • INSERT INTO RESTAURANT.Supplier VALUES (6, 'Grains Galore', 'Houston', 1);
7 • INSERT INTO RESTAURANT.Supplier VALUES (7, 'Cheese Haven', 'Dallas', 2);
8 • INSERT INTO RESTAURANT.Supplier VALUES (8, 'Shellfish Paradise', 'Seattle', 3);
9 • INSERT INTO RESTAURANT.Supplier VALUES (9, 'Pasta Emporium', 'Boston', 4);
10 • INSERT INTO RESTAURANT.Supplier VALUES (10, 'Bakery Bliss', 'Denver', 5);
11 • INSERT INTO RESTAURANT.Supplier VALUES (11, 'Soy Sauce Central', 'New York', 1);
12 • INSERT INTO RESTAURANT.Supplier VALUES (12, 'Rice World', 'Chicago', 2);
13 • INSERT INTO RESTAURANT.Supplier VALUES (13, 'Pork Producers', 'Los Angeles', 3);
14 • INSERT INTO RESTAURANT.Supplier VALUES (14, 'Dairy Delights', 'San Francisco', 4);
15 • INSERT INTO RESTAURANT.Supplier VALUES (15, 'Citrus Sensations', 'Miami', 5);
16 • INSERT INTO RESTAURANT.Supplier VALUES (16, 'Vegetable Valley', 'Houston', 1);
17 • INSERT INTO RESTAURANT.Supplier VALUES (17, 'Pepperoni Palace', 'Dallas', 2);
18 • INSERT INTO RESTAURANT.Supplier VALUES (18, 'Spice City', 'Seattle', 3);
19 • INSERT INTO RESTAURANT.Supplier VALUES (19, 'Eggplant Emporium', 'Boston', 4);
20 • INSERT INTO RESTAURANT.Supplier VALUES (20, 'Tuna Treasures', 'Denver', 5);
21 • INSERT INTO RESTAURANT.Supplier VALUES (21, 'Beef Bonanza', 'New York', 1);
22 • INSERT INTO RESTAURANT.Supplier VALUES (22, 'Chicken Coop', 'Chicago', 2);
23 • INSERT INTO RESTAURANT.Supplier VALUES (23, 'Seafood Sensation', 'Los Angeles', 3);

```

Action Output

	Time	Action	Response	Duration / Fetch Time
17	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (17, 'Pepperoni Palace', 'Dallas', 2)	1 row(s) affected	0.00032 sec
18	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (18, 'Spice City', 'Seattle', 3)	1 row(s) affected	0.00028 sec
19	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (19, 'Eggplant Emporium', 'Boston...', 4)	1 row(s) affected	0.00029 sec
20	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (20, 'Tuna Treasures', 'Denver', 5)	1 row(s) affected	0.00027 sec
21	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (21, 'Beef Bonanza', 'New York', 1)	1 row(s) affected	0.00026 sec
22	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (22, 'Chicken Coop', 'Chicago', 2)	1 row(s) affected	0.00034 sec
23	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (23, 'Seafood Sensation', 'Los An...', 3)	1 row(s) affected	0.00027 sec
24	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (24, 'Asian Aromas', 'San Franci...', 5)	1 row(s) affected	0.00028 sec
25	11:35:08	INSERT INTO RESTAURANT.Supplier VALUES (25, 'Mango Madness', 'Miami', 5)	1 row(s) affected	0.00025 sec

Query Completed

7. Orders Table

This table contains order details with customer id and meal id that the customer ordered.

```

CREATE TABLE RESTAURANT.Orders (
    OrderID INT PRIMARY KEY AUTO_INCREMENT,
    CustomerID INT,
    MealID INT,
    FOREIGN KEY (CustomerID) REFERENCES Customer(CustomerID),
    FOREIGN KEY (MealID) REFERENCES Meal(MealID)
);

```

The screenshot shows a database management interface with the following details:

- Schemas:** DEMO, RESTAURANT (Tables, Views, Stored Procedures, Functions), sys.
- Code Editor:** A SQL script for creating a table named RESTAURANT.Orders. The code includes primary key constraints and foreign key references to Customer and Meal tables.
- Action Output:** A log of the execution of the CREATE TABLE command. It shows the time (11:41:31), action (CREATE TABLE RESTAURANT.Orders), response (0 row(s) affected), and duration (0.016 sec).

```
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (1, 10);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (2, 21);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (3, 3);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (4, 14);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (5, 15);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (6, 16);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (7, 7);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (8, 8);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (9, 9);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (10, 1);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (11, 11);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (12, 22);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (13, 23);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (14, 24);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (15, 5);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (16, 6);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (17, 17);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (18, 18);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (19, 19);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (20, 20);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (21, 21);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (22, 2);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (23, 13);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (24, 14);
INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (25, 25);
```

The screenshot shows a database management interface with the following details:

- Toolbar:** Includes icons for file operations, search, and navigation.
- Header:** Shows the connection name "INFO5707".
- Schemas:** A tree view of schemas: DEMO, RESTAURANT (Tables, Views, Stored Procedures, Functions), and sys.
- Query Log:** A list of 24 INSERT statements into the RESTAURANT.Orders table, each with a timestamp and row count affected.
- Action Output:** A table showing the execution details for each insert statement.

	Time	Action	Response	Duration / Fetch Time
18	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (17, 17);	1 row(s) affected	0.00027 sec
19	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (18, 18);	1 row(s) affected	0.00035 sec
20	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (19, 19);	1 row(s) affected	0.00027 sec
21	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (20, 20);	1 row(s) affected	0.00026 sec
22	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (21, 21);	1 row(s) affected	0.00029 sec
23	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (22, 2);	1 row(s) affected	0.00026 sec
24	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (23, 13);	1 row(s) affected	0.00027 sec
25	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (24, 14);	1 row(s) affected	0.00024 sec
26	11:50:13	INSERT INTO RESTAURANT.Orders (CustomerID, MealID) VALUES (25, 25);	1 row(s) affected	0.00029 sec

- Status Bar:** Shows "Query Completed".

8. Provides Table

This table contains details of which supplier provides which ingredients.

```
CREATE TABLE RESTAURANT.Provides (
    ProviderID INT,
    IngredientID INT,
    SupplierID INT,
    FOREIGN KEY (SupplierID) REFERENCES Supplier(SupplierID),
    FOREIGN KEY (IngredientID) REFERENCES Ingredients(IngredientID)
);
```

```

CREATE TABLE RESTAURANT.Provides (
    ProviderID INT,
    IngredientID INT,
    SupplierID INT,
    PRIMARY KEY (SupplierID) REFERENCES Supplier(SupplierID),
    FOREIGN KEY (IngredientID) REFERENCES Ingredients(IngredientID)
);

```

Action Output

	Time	Action	Response	Duration / Fetch Time
1	11:53:40	CREATE TABLE RESTAURANT.Provides (ProviderID INT, IngredientID INT,...)	0 row(s) affected	0.014 sec

```

INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (1, 6);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (2, 2);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (3, 3);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (4, 14);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (5, 5);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (6, 16);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (7, 7);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (8, 18);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (9, 9);
INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (10, 11);

```

```

1 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (1, 6);
2 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (2, 2);
3 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (3, 3);
4 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (4, 14);
5 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (5, 5);
6 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (6, 16);
7 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (7, 7);
8 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (8, 18);
9 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (9, 9);
10 • INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (10, 11);
11

```

Action Output

	Time	Action	Response	Duration / Fetch Time
1	11:53:40	CREATE TABLE RESTAURANT.Provides (ProviderID INT, IngredientID INT,...)	0 row(s) affected	0.014 sec
2	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (1, 6)	1 row(s) affected	0.0080 sec
3	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (2, 2)	1 row(s) affected	0.0011 sec
4	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (3, 3)	1 row(s) affected	0.00051 sec
5	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (4, 14)	1 row(s) affected	0.00040 sec
6	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (5, 5)	1 row(s) affected	0.00043 sec
7	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (6, 16)	1 row(s) affected	0.00038 sec
8	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (7, 7)	1 row(s) affected	0.00052 sec
9	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (8, 18)	1 row(s) affected	0.00037 sec
10	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (9, 9)	1 row(s) affected	0.00039 sec
11	11:59:12	INSERT INTO RESTAURANT.Provides (SupplierID, IngredientID) VALUES (10, 11)	1 row(s) affected	0.00031 sec

Data Retrieval and Reports

1. Query to find the ingredients present in the meal ‘Pepperoni Pizza’.

```

SELECT I.Name, I.Description FROM RESTAURANT.Ingredients I JOIN RESTAURANT.Meal M ON
I.MealID = M.MealID
WHERE I.MealID IN (SELECT MealID FROM RESTAURANT.Meal WHERE M.Name = 'Pepperoni
Pizza')

```

The screenshot shows the MySQL Workbench interface with a query editor window titled 'INFO5707'. The query is:

```

1 •  SELECT I.Name, I.Description FROM RESTAURANT.Ingredients I JOIN RESTAURANT.Meal M ON I.MealID = M.MealID
2 WHERE I.MealID IN (SELECT MealID FROM RESTAURANT.Meal WHERE M.Name = 'Pepperoni Pizza')
3
4

```

The results grid shows one row:

Name	Description
Pepperoni	Sliced pepperoni

2. Query to check how many customers waiter ‘Olivia Martinez’ has served.

```

SELECT C.CustomerID, C.FirstName, C.LastName, C.Phone, W.WaiterID, W.FirstName, W.LastName
FROM
RESTAURANT.Customer C
JOIN RESTAURANT.Waiter W ON C.WaiterID = W.WaiterID
WHERE W.FirstName = 'Olivia' AND W.LastName = 'Martinez'

```

The screenshot shows the MySQL Workbench interface with a query editor window titled 'INFO5707'. The query is:

```

1 •  SELECT C.CustomerID, C.FirstName, C.LastName, C.Phone, W.WaiterID, W.FirstName, W.LastName FROM
2          RESTAURANT.Customer C JOIN RESTAURANT.Waiter W ON C.WaiterID = W.WaiterID
3          WHERE W.FirstName = 'Olivia' AND W.LastName = 'Martinez'
4
5

```

The results grid shows one row:

CustomerID	FirstName	LastName	Phone	WaiterID	FirstName	LastName
16	Paul	Brown	555-1234	6	Olivia	Martinez

3. Query to check which meals Customer ‘Frank Brown’ has ordered.

```

SELECT C.FirstName, C.LastName, O.OrderID, M.MealID, M.Name
FROM RESTAURANT.Meal M
JOIN RESTAURANT.Orders O ON O.MealID = M.MealID
JOIN RESTAURANT.Customer C ON C.CustomerID = O.CustomerID
WHERE C.FirstName = 'Frank' AND C.LastName = 'Brown'

```

The screenshot shows a SQL editor window titled 'INFO5707'. The left sidebar lists 'SCHEMAS' with 'RESTAURANT' expanded, showing tables: Chef, Customer, Ingredients, Meal, Orders, Supplier, and Waiter. The main area contains a query:

```

1 •  SELECT C.FirstName, C.LastName, O.OrderID, M.MealID, M.Name FROM RESTAURANT.Meal M
2      JOIN RESTAURANT.Orders O ON O.MealID = M.MealID
3      JOIN RESTAURANT.Customer C ON C.CustomerID = O.CustomerID
4 WHERE C.FirstName = 'Frank' AND C.LastName = 'Brown'

```

The result grid shows one row:

FirstName	LastName	OrderID	MealID	Name
Frank	Brown	6	16	Vegetable Curry

4. Query to retrieve meal and chef details for all the meals ordered by 'Frank Brown'

```

SELECT C.FirstName, C.LastName, O.OrderID, M.MealID, M.Name, Ch.ChefID, Ch.FirstName,
Ch.LastName
FROM RESTAURANT.Meal M JOIN RESTAURANT.Orders O ON O.MealID = M.MealID
JOIN RESTAURANT.Customer C ON C.CustomerID = O.CustomerID
JOIN Restaurant.Chef Ch ON Ch.ChefID = M.ChefID
WHERE C.FirstName = 'Frank' AND C.LastName = 'Brown'

```

The screenshot shows a SQL editor window titled 'INFO5707'. The left sidebar lists 'SCHEMAS' with 'RESTAURANT' expanded, showing tables: Chef, Customer, Ingredients, Meal, Orders, Supplier, and Waiter. The main area contains a query:

```

1 •  SELECT C.FirstName, C.LastName, O.OrderID, M.MealID, M.Name, Ch.ChefID, Ch.FirstName, Ch.LastName
      FROM RESTAURANT.Meal M
      JOIN RESTAURANT.Orders O ON O.MealID = M.MealID
      JOIN RESTAURANT.Customer C ON C.CustomerID = O.CustomerID
      JOIN Restaurant.Chef Ch ON Ch.ChefID = M.ChefID
      WHERE C.FirstName = 'Frank' AND C.LastName = 'Brown'

```

The result grid shows one row:

FirstName	LastName	OrderID	MealID	Name	ChefID	FirstName	LastName
Frank	Brown	6	16	Vegetable Curry	1	John	Doe

5. Query to display all the ingredients that supplier 'Leafy Greens Inc.' provides.

```

SELECT I.IngredientID, I.Name, I.Description, S.SupplierName FROM RESTAURANT.Ingredients I
JOIN RESTAURANT.Provides P ON I.IngredientID = P.IngredientID
JOIN RESTAURANT.Supplier S ON S.SupplierID = P.SupplierID
WHERE S.SupplierName = 'Leafy Greens Inc.'

```

The screenshot shows the MySQL Workbench interface. The top navigation bar includes tabs for Administration, Schemas, and a query editor tab. The left sidebar displays the database schema with nodes for DEMO, RESTAURANT, and various tables like Chef, Customer, Ingredients, Meal, Orders, Supplier, Waiter, Views, and Stored Procedures. The main area shows a query editor with the following SQL code:

```
1 •  SELECT I.IngredientID, I.Name, I.Description, S.SupplierName FROM RESTAURANT.Ingredients I
2          JOIN RESTAURANT.Provides P ON I.IngredientID = P.IngredientID
3          JOIN RESTAURANT.Supplier S ON S.SupplierID = P.SupplierID
4 WHERE S.SupplierName = 'Leafy Greens Inc.'
5
```

Below the query editor is a result grid with the following data:

	IngredientID	Name	Description	SupplierName
5	Romaine Lettuce	Crisp Romaine lettuce	Leafy Greens Inc.	