SQL PROJECT- Zomato Database Management System

Database Creation

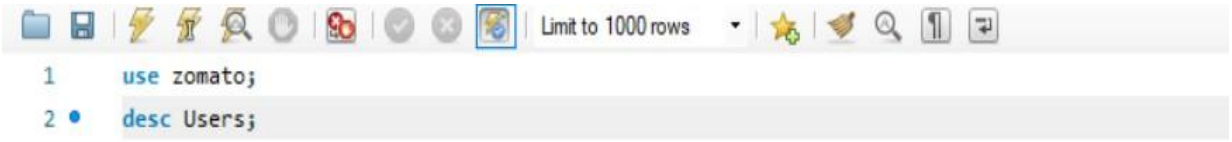
CREATE DATABASE zomato;
USE zomato;

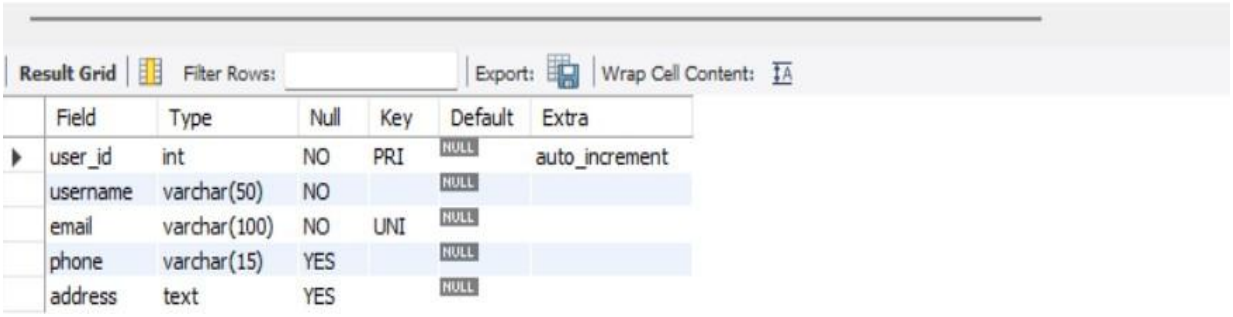
Creating Tables

1. Users Table

CREATE TABLE Users (user_id int PRIMARY KEY AUTO_INCREMENT, username varchar(50) NOT NULL, email varchar (100) NOT NULL UNIQUE, phone varchar (15), address TEXT);

- DESC Users;



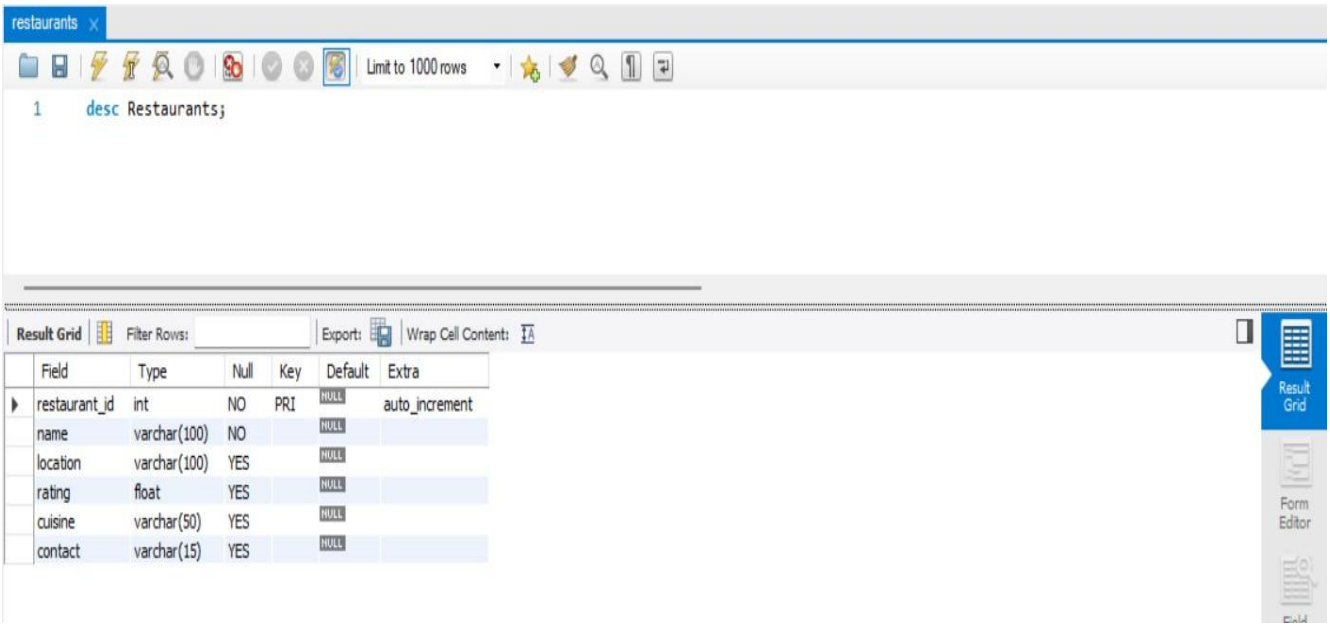


Field	Type	Null	Key	Default	Extra
user_id	int	NO	PRI	NULL	auto_increment
username	varchar(50)	NO		NULL	
email	varchar(100)	NO	UNI	NULL	
phone	varchar(15)	YES		NULL	
address	text	YES		NULL	

2. Restaurants Table

CREATE TABLE Restaurants (restaurant_id int PRIMARY KEY AUTO_INCREMENT, name varchar(100) NOT NULL, varchar (100), rating FLOAT CHECK (rating >= 0 AND rating <= 5), cuisine varchar(50), contact varchar(15));

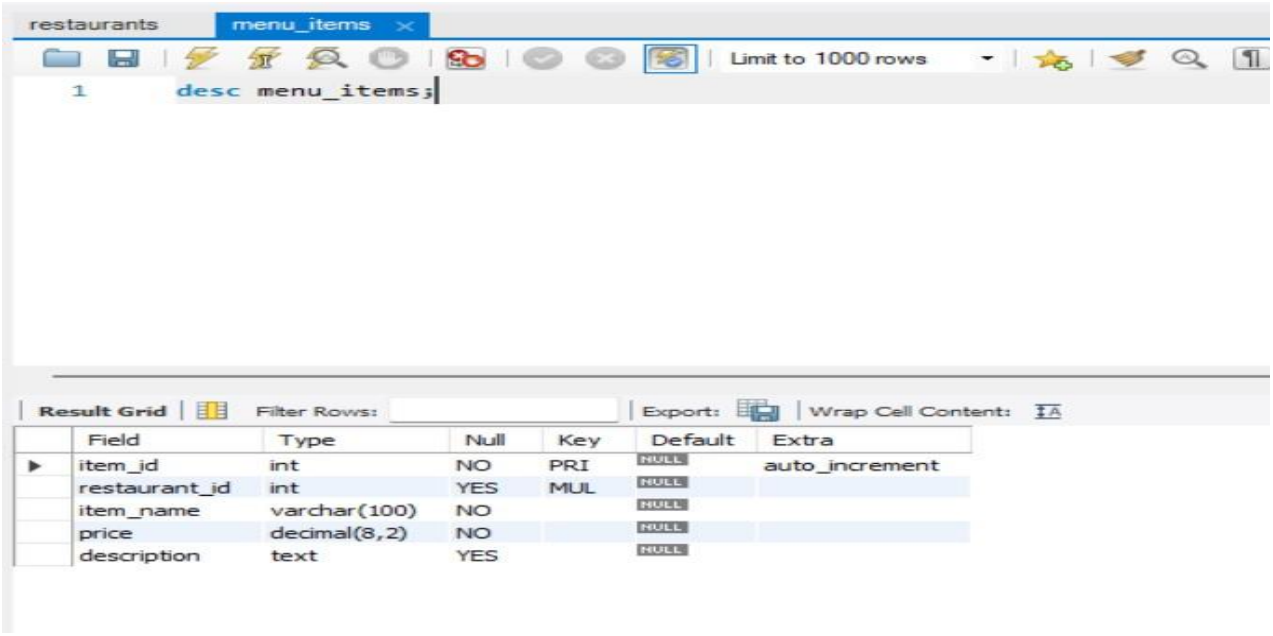
- DESC Restaurants;



3. Menu_Items Table

CREATE TABLE Menu_Items (item_id int PRIMARY KEY AUTO_INCREMENT, restaurant_id INT, item_name varchar(100) NOT NULL, price DECIMAL(8, 2) NOT NULL, description TEXT, FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE);

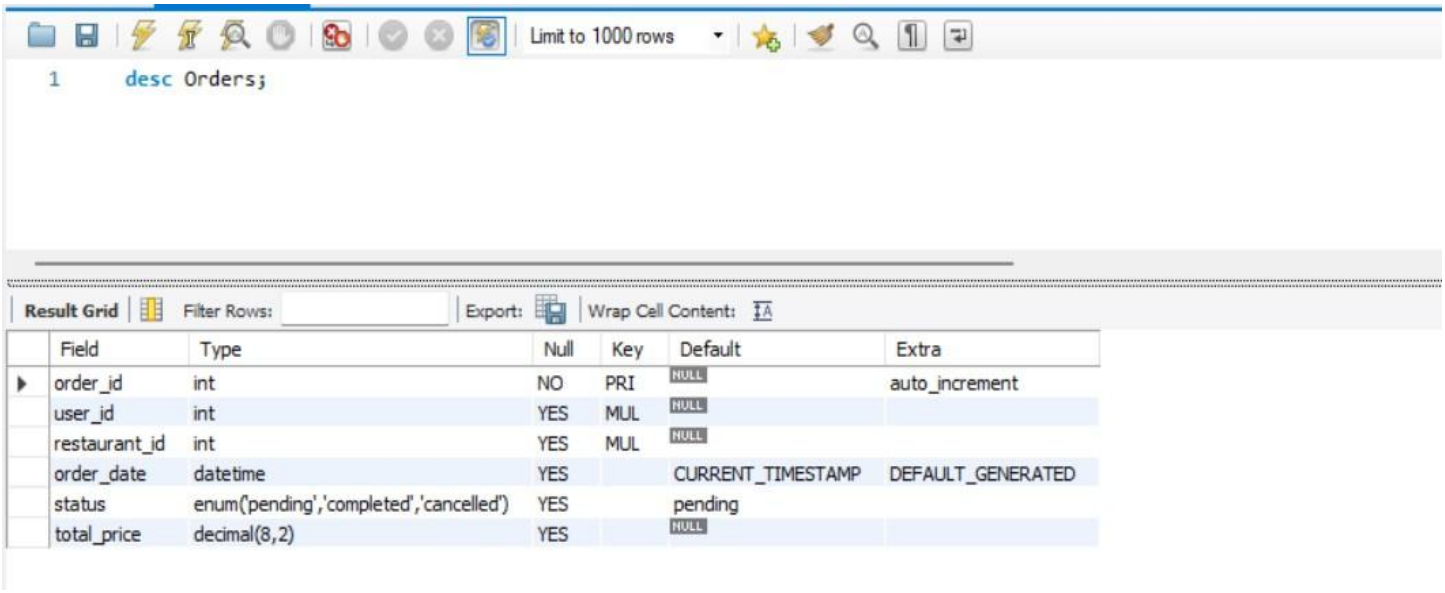
- DESC Menu_Items;



4. Orders Table

CREATE TABLE Orders (order_id int PRIMARY KEY AUTO_INCREMENT, user_id int, restaurant_id int, order_date DATETIME DEFAULT CURRENT_TIMESTAMP, status ENUM('Pending', 'Completed', 'Cancelled') DEFAULT 'Pending', total_price DECIMAL(8, 2), FOREIGN KEY (user_id) REFERENCES Users(user_id) ON DELETE CASCADE, FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE);

- DESC Orders;

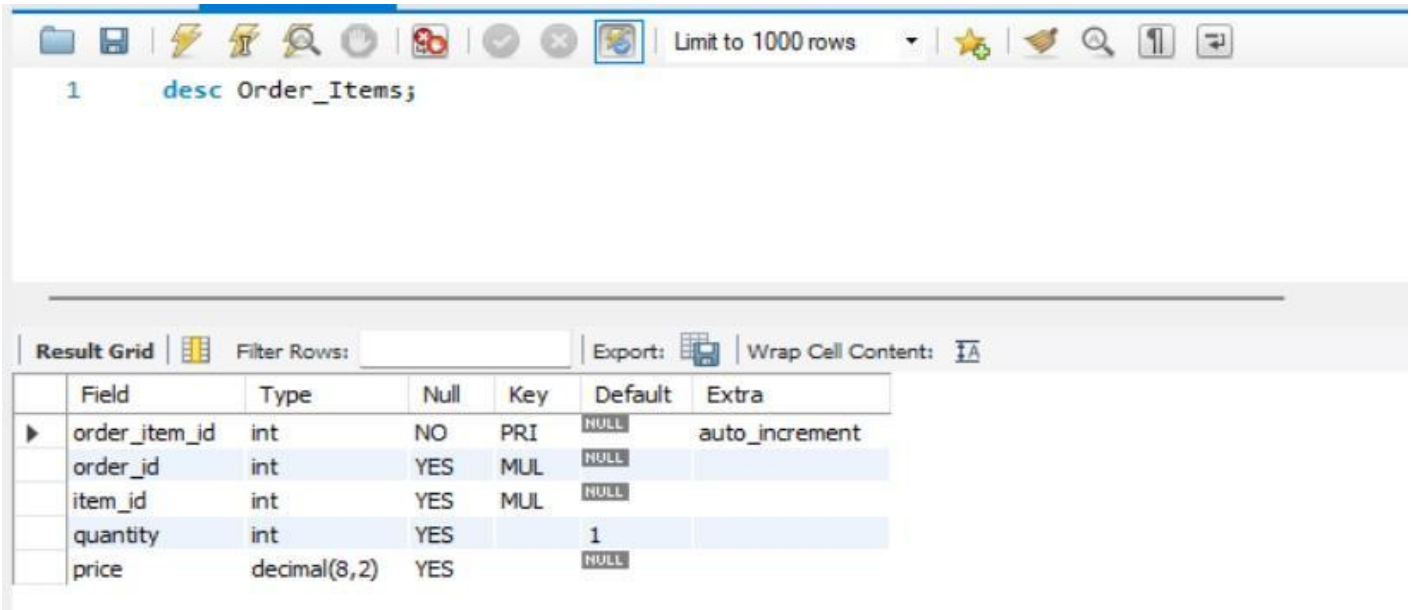


Field	Type	Null	Key	Default	Extra
order_id	int	NO	PRI	NULL	auto_increment
user_id	int	YES	MUL	NULL	
restaurant_id	int	YES	MUL	NULL	
order_date	datetime	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED
status	enum('pending','completed','cancelled')	YES		pending	
total_price	decimal(8,2)	YES		NULL	

5. Order_Items Table

CREATE TABLE Order_Items (order_item_id int PRIMARY KEY AUTO_INCREMENT, order_id int, item_id int, quantity int DEFAULT 1, price DECIMAL(8, 2), FOREIGN KEY (order_id) REFERENCES Orders(order_id) ON DELETE CASCADE, FOREIGN KEY (item_id) REFERENCES Menu_Items(item_id) ON DELETE CASCADE);

- DESC Order_Items;

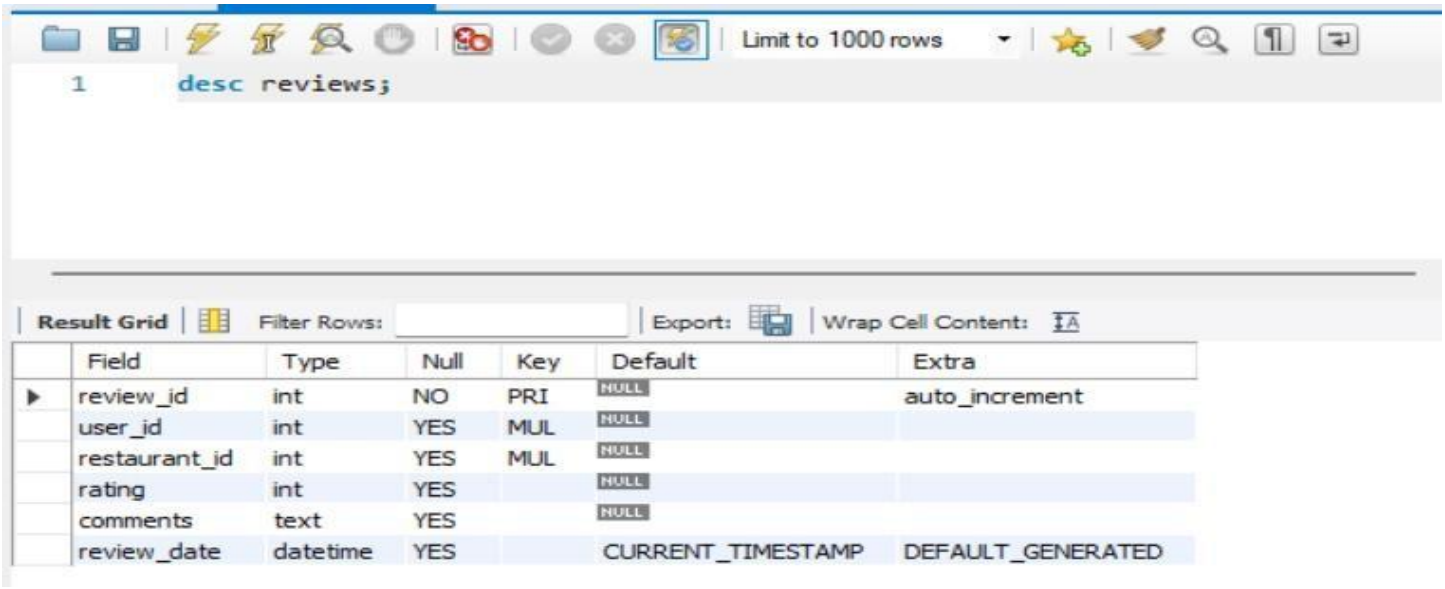


Field	Type	Null	Key	Default	Extra
order_item_id	int	NO	PRI	NULL	auto_increment
order_id	int	YES	MUL	NULL	
item_id	int	YES	MUL	NULL	
quantity	int	YES		1	
price	decimal(8,2)	YES		NULL	

6. Reviews Table

CREATE TABLE Reviews (review_id INT PRIMARY KEY AUTO_INCREMENT, user_id int, restaurant_id int, rating INT CHECK (rating >= 0 AND rating <= 5), comments TEXT, review_date DATETIME DEFAULT CURRENT_TIMESTAMP, FOREIGN KEY (user_id) REFERENCES Users(user_id) ON DELETE CASCADE, FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE);

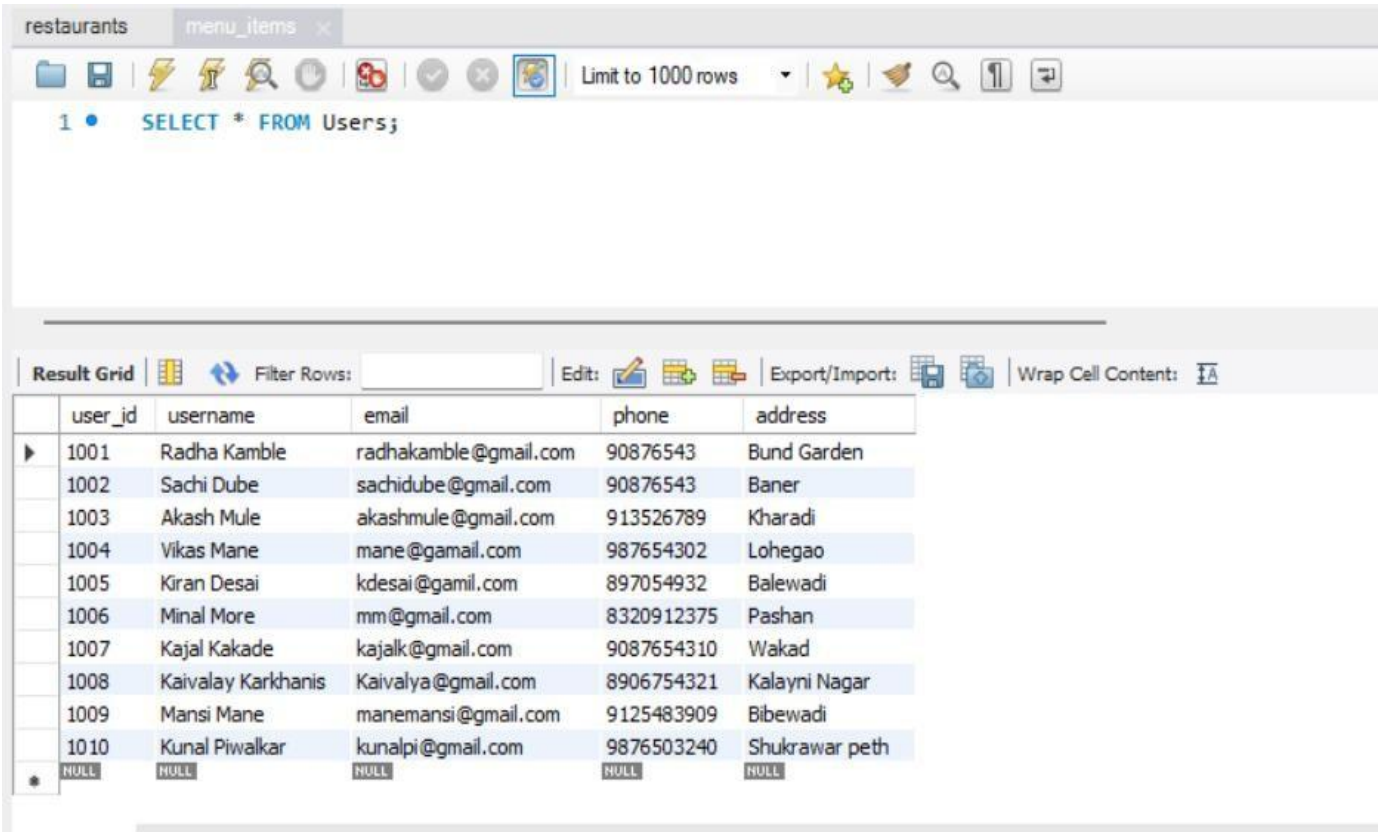
- DESC Reviews;



Field	Type	Null	Key	Default	Extra
review_id	int	NO	PRI	NULL	auto_increment
user_id	int	YES	MUL	NULL	
restaurant_id	int	YES	MUL	NULL	
rating	int	YES		NULL	
comments	text	YES		NULL	
review_date	datetime	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED

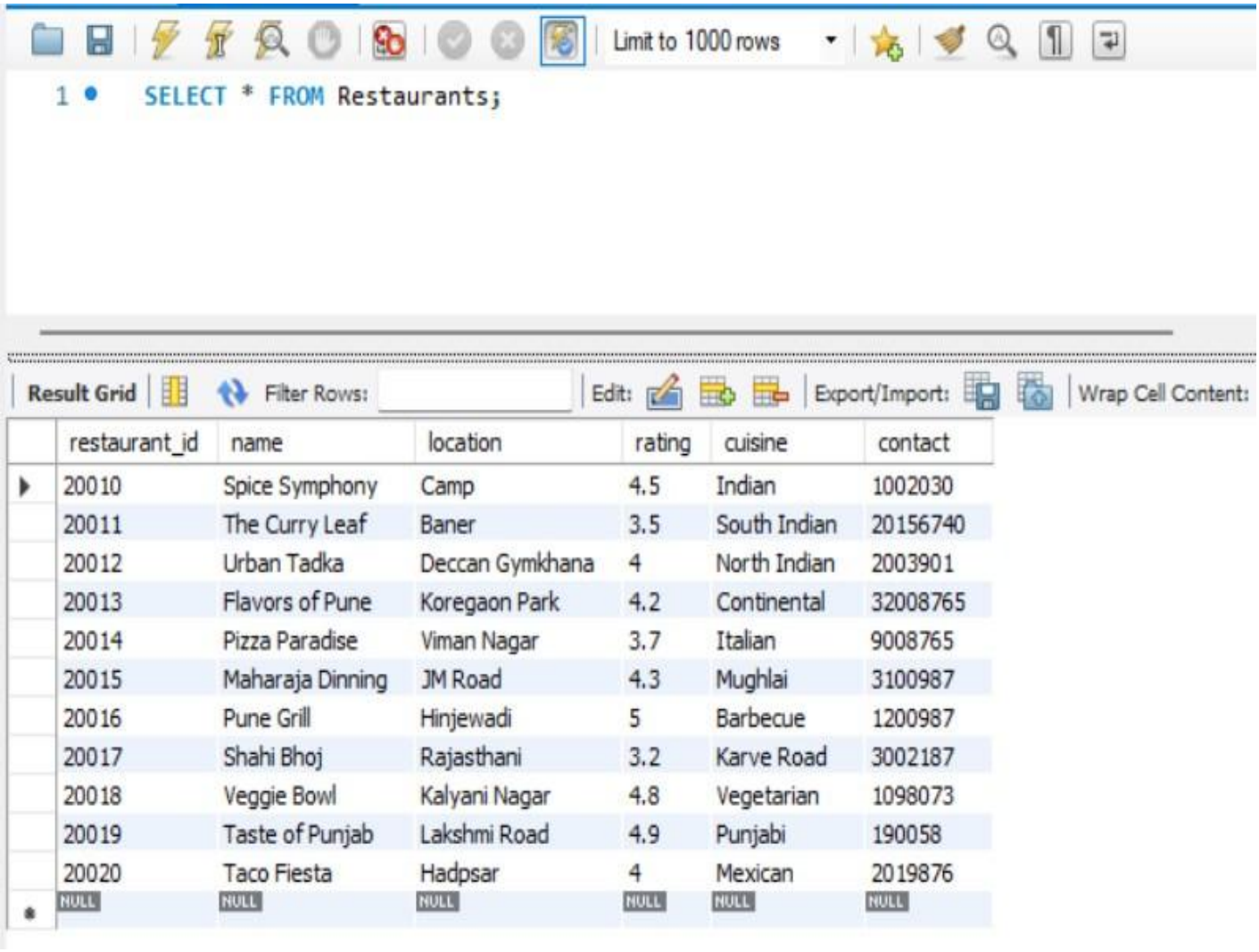
AFTER INSERTING ALL VALUES FOR ALL TABLES RECORDS ARE AS FOLLOWS :-

Table for User :-



user_id	username	email	phone	address
1001	Radha Kamble	radhakamble@gmail.com	90876543	Bund Garden
1002	Sachi Dube	sachidube@gmail.com	90876543	Baner
1003	Akash Mule	akashmule@gmail.com	913526789	Kharadi
1004	Vikas Mane	mane@gamail.com	987654302	Lohegao
1005	Kiran Desai	kdesai@gamil.com	897054932	Balewadi
1006	Minal More	mm@gmail.com	8320912375	Pashan
1007	Kajal Kakade	kajalk@gmail.com	9087654310	Wakad
1008	Kaivalay Karkhanis	Kaivalya@gmail.com	8906754321	Kalayni Nagar
1009	Mansi Mane	manemansi@gmail.com	9125483909	Bibewadi
1010	Kunal Piwalkar	kunalpi@gmail.com	9876503240	Shukrawar peth
NULL	NULL	NULL	NULL	NULL

Table for Restaurants :-



```
SELECT * FROM Restaurants;
```

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

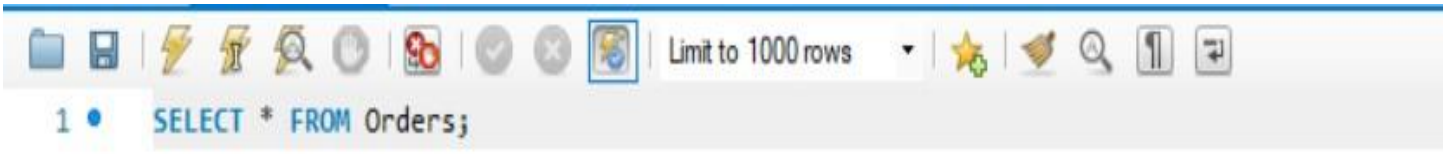
restaurant_id	name	location	rating	cuisine	contact
20010	Spice Symphony	Camp	4.5	Indian	1002030
20011	The Curry Leaf	Baner	3.5	South Indian	20156740
20012	Urban Tadka	Deccan Gymkhana	4	North Indian	2003901
20013	Flavors of Pune	Koregaon Park	4.2	Continental	32008765
20014	Pizza Paradise	Viman Nagar	3.7	Italian	9008765
20015	Maharaja Dinning	JM Road	4.3	Mughlai	3100987
20016	Pune Grill	Hinjewadi	5	Barbecue	1200987
20017	Shahi Bhoj	Rajasthani	3.2	Karve Road	3002187
20018	Veggie Bowl	Kalyani Nagar	4.8	Vegetarian	1098073
20019	Taste of Punjab	Lakshmi Road	4.9	Punjabi	190058
20020	Taco Fiesta	Hadpsar	4	Mexican	2019876
NULL	NULL	NULL	NULL	NULL	NULL

Table for Menu_Items :-

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

item_id	restaurant_id	item_name	price	description
101	20010	Dal Makhani	249.00	Slow-cooked black lentils with cream and butter
102	20010	Paneer Tikka	299.00	Grilled cottage cheese marinated in Indian spices
103	20010	Garlic Naan	99.00	Soft Indian bread with garlic topping
201	20011	Masala Dosa	150.00	Crispy dosa stuffed with spiced potato filling
202	20011	Sambar Vada	120.00	Fried lentil doughnuts served with sambar and c...
301	20012	Tandoori Chicken	399.00	Chicken marinated in yogurt and spices, cooked...
302	20012	Chole Bhature	199.00	Spiced chickpeas served with deep-fried bread
401	20013	Grilled Chicken Steak	499.00	Chicken breast served with mashed potatoes a...
501	20014	Margherita Pizza	299.00	Classic pizza with mozzarella and tomato sauce
502	20014	Pepperoni Pizza	399.00	Pizza topped with pepperoni and cheese
601	20015	Hyderabadi Biryani	349.00	Fragrant basmati rice cooked with spices and ch...
602	20015	Shahi Tukda	150.00	Rich bread pudding topped with nuts and saffron
603	20015	Roomali Roti	50.00	Thin, soft flatbread served with curries
701	20016	BBQ Chicken Wings	299.00	Chicken wings grilled with smoky barbecue sauce
702	20016	Chocolate Lava Cake	199.00	Warm cake with gooey chocolate center
801	20017	Dal Baati Churma	299.00	Traditional Rajasthani dish with lentils and whea...
802	20017	Jalebi with Rabri	150.00	Crispy fried sweets soaked in syrup and served ...
901	20018	Grilled Paneer Wrap	249.00	Whole wheat wrap stuffed with grilled paneer a...
902	20018	Veggie Pasta Prima...	349.00	Pasta tossed with fresh seasonal vegetables in ...
1010	20019	Butter Paneer Masala	349.00	Creamy paneer curry with rich Punjabi spices
1011	20019	Lassi	100.00	Thick and creamy Punjabi yogurt drink
1101	20020	Classic Beef Tacos	299.00	Soft tacos filled with seasoned beef, lettuce, an...
NULL	NULL	NULL	NULL	NULL

Table for Orders :-



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

order_id	user_id	restaurant_id	order_date	status	total_price
1	1001	20011	2022-03-27 00:00:00	pending	150.00
2	1003	20014	2022-03-28 00:00:00	completed	299.00
3	1010	20019	2022-09-10 00:00:00	completed	100.00
4	1007	20018	2023-01-08 00:00:00	cancelled	300.00
5	1005	20017	2023-03-23 00:00:00	completed	500.00
6	1006	20015	2023-03-23 00:00:00	pending	550.00
7	1009	20016	2023-05-20 00:00:00	completed	1500.00
8	1001	20020	2024-06-20 00:00:00	pending	255.00
9	1007	20016	2024-07-04 00:00:00	completed	2500.00
10	1004	20012	2024-09-10 00:00:00	cancelled	5000.00
NULL	NULL	NULL	NULL	NULL	NULL

Table for Order_Items :-

```
SELECT * FROM Order_Items;
```

order_item_id	order_id	item_id	quantity	price
1101	1	101	1	150.00
1102	2	501	1	299.00
1103	3	1011	1	100.00
1104	4	902	1	300.00
1105	5	801	2	500.00
1106	6	602	1	150.00
1107	7	603	7	250.00
1108	8	1101	1	255.00
1109	9	702	3	2500.00
1110	10	301	4	5000.00
NULL	NULL	NULL	NULL	NULL

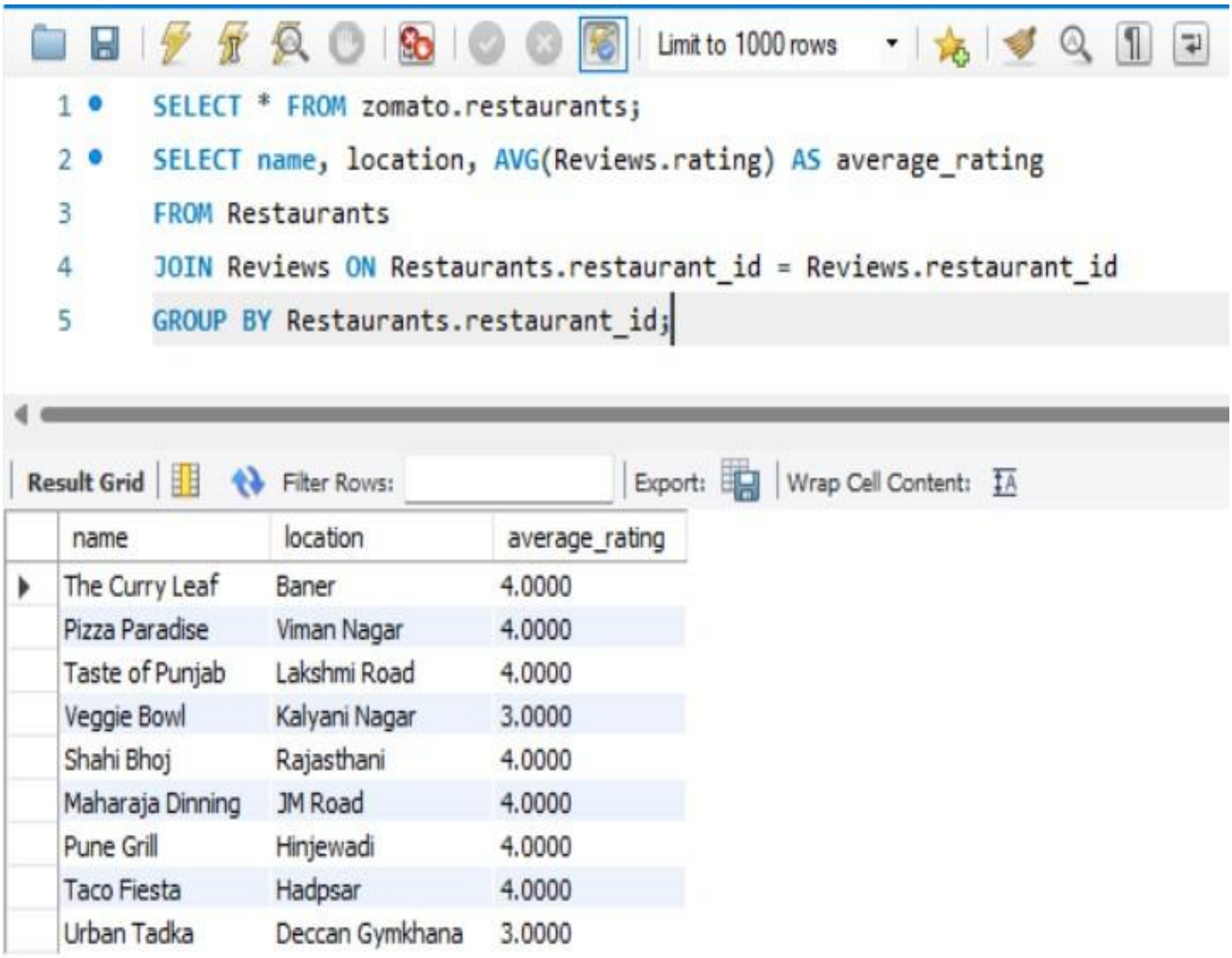
Table for Reviews :-

```
SELECT * FROM Reviews;
```

review_id	user_id	restaurant_id	rating	comments	review_date
1	1001	20011	4	Great variety of South Indian dishes	2022-03-27 00:00:00
2	1003	20014	4	Perfect for pizza lovers!	2022-03-28 00:00:00
3	1010	20019	4	Authentic Punjabi flavors!	2022-09-10 00:00:00
4	1007	20018	3	The food arrived cold because of the late delive...	2023-01-08 00:00:00
5	1005	20017	4	The Dal Baati Churma was absolutely delicious	2023-03-23 00:00:00
6	1006	20015	4	Royal vibes with a luxurious dining experience.	2023-03-23 00:00:00
7	1009	20016	4	Highly recommend the Mixed Grill Platter	2023-05-20 00:00:00
8	1001	20020	4	The tacos were delicious and perfectly spiced	2024-06-20 00:00:00
9	1007	20016	4	Great ambiance with live grilling.	2024-07-04 00:00:00
10	1004	20012	3	The order was canceled because it took too lon...	2024-09-10 00:00:00
NULL	NULL	NULL	NULL	NULL	NULL

Queries :

1. **Get all restaurants and their average rating:**



```
1 •  SELECT * FROM zomato.restaurants;
2 •  SELECT name, location, AVG(Reviews.rating) AS average_rating
3    FROM Restaurants
4    JOIN Reviews ON Restaurants.restaurant_id = Reviews.restaurant_id
5    GROUP BY Restaurants.restaurant_id;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	location	average_rating
The Curry Leaf	Baner	4.0000
Pizza Paradise	Viman Nagar	4.0000
Taste of Punjab	Lakshmi Road	4.0000
Veggie Bowl	Kalyani Nagar	3.0000
Shahi Bhoj	Rajasthani	4.0000
Maharaja Dinning	JM Road	4.0000
Pune Grill	Hinjewadi	4.0000
Taco Fiesta	Hadpsar	4.0000
Urban Tadka	Deccan Gymkhana	3.0000

2. **Find all menu items of a restaurant:**

menu_items restaurants menu_items

Limit to 1000 rows

```
1  SELECT item_name, price, description
2  FROM Menu_Items
3  WHERE restaurant_id = 20010;
4
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

item_name	price	description
Dal Makhani	249.00	Slow-cooked black lentils with cream and butter
Paneer Tikka	299.00	Grilled cottage cheese marinated in Indian spices
Garlic Naan	99.00	Soft Indian bread with garlic topping

3. **Retrieve all orders by a user:**

Limit to 1000 rows

```
1  SELECT Orders.order_id, Restaurants.name AS restaurant_name, Orders.total_price, Orders.status
2  FROM Orders
3  JOIN Restaurants ON Orders.restaurant_id = Restaurants.restaurant_id
4  WHERE Orders.user_id = 1001;
5
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_id	restaurant_name	total_price	status
1	The Curry Leaf	150.00	pending
8	Taco Fiesta	255.00	pending

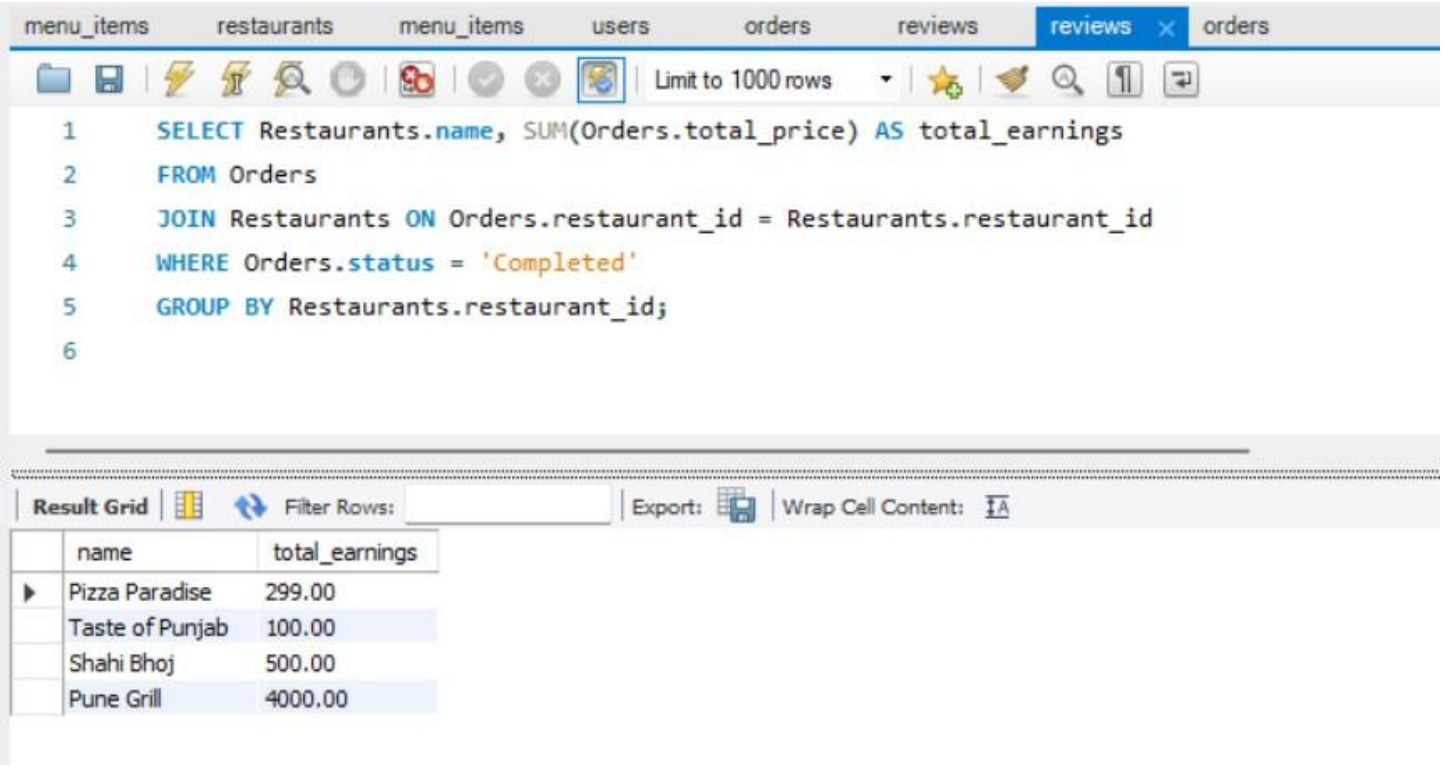
4. **Display all reviews for a restaurant:**

```
SELECT Users.username, Reviews.rating, Reviews.comments
FROM Reviews
JOIN Users ON Reviews.user_id = Users.user_id
WHERE restaurant_id = 20011;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

username	rating	comments
Radha Kamble	4	Great variety of South Indian dishes

5. **Calculate total earnings for each restaurant:**

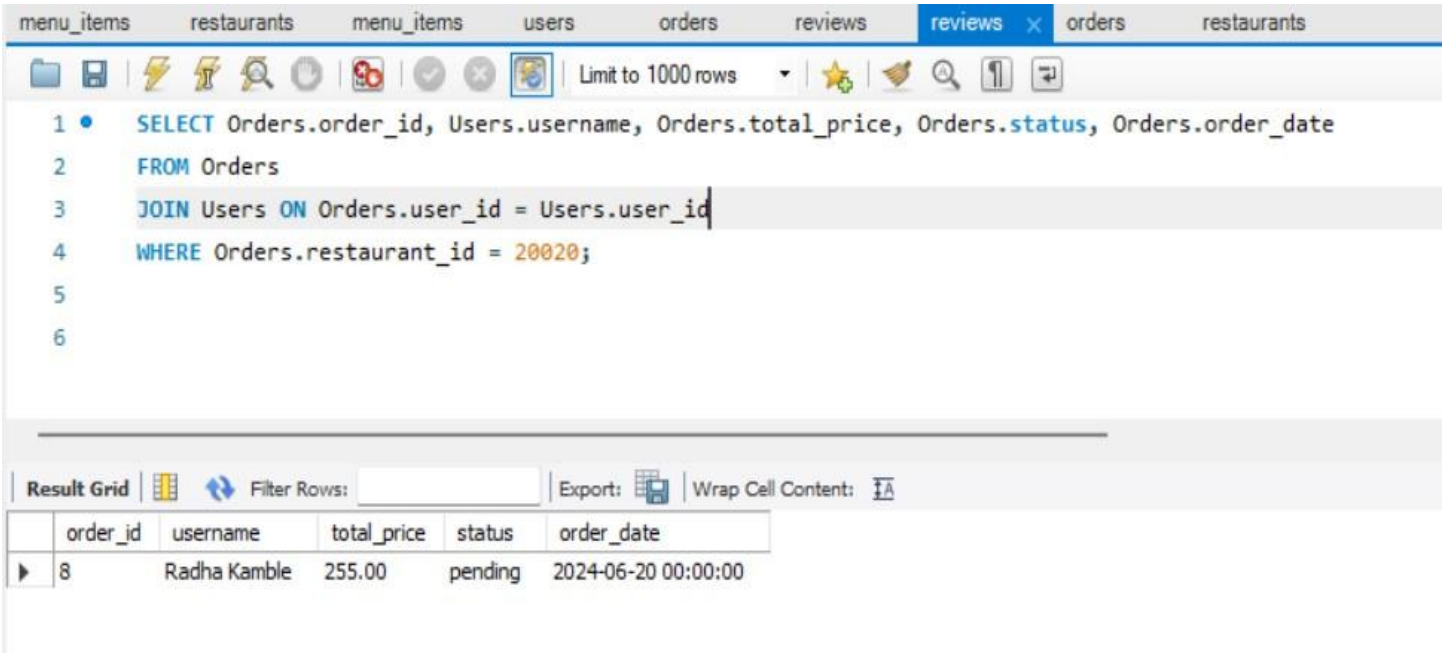


```
SELECT Restaurants.name, SUM(Orders.total_price) AS total_earnings
FROM Orders
JOIN Restaurants ON Orders.restaurant_id = Restaurants.restaurant_id
WHERE Orders.status = 'Completed'
GROUP BY Restaurants.restaurant_id;
```

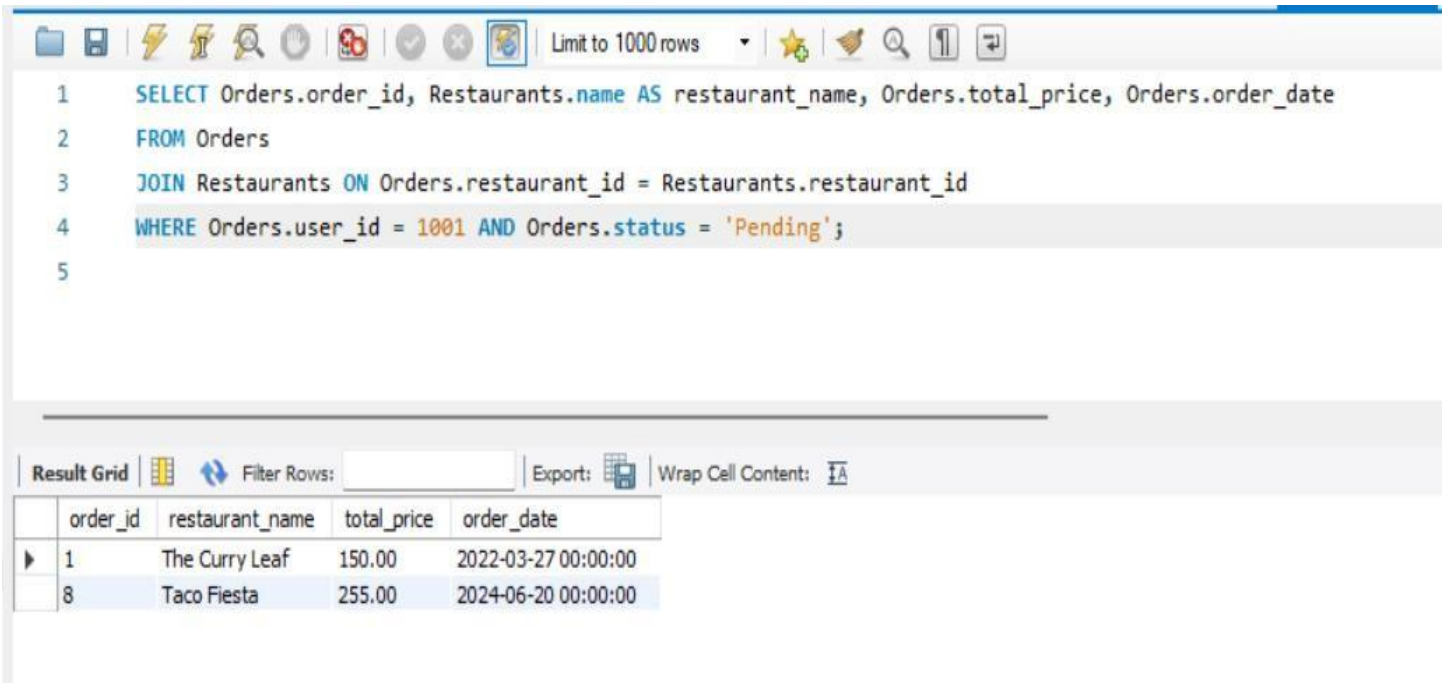
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	total_earnings
Pizza Paradise	299.00
Taste of Punjab	100.00
Shahi Bhoj	500.00
Pune Grill	4000.00

6. **List all orders for a specific restaurant:**



7. **Retrieve all pending orders for a specific user:**



8. **Find all canceled orders and the reason for cancellation:**

```
SELECT Orders.order_id, Users.username, Restaurants.name AS restaurant_name, Orders.order_date,  Orders.status, Reviews.comments AS Reason
FROM Orders
JOIN Users ON Orders.user_id = Users.user_id
JOIN Restaurants ON Orders.restaurant_id = Restaurants.restaurant_id
JOIN Reviews ON Orders.user_id = Reviews.user_id
AND Orders.restaurant_id = Reviews.restaurant_id
WHERE Orders.status = 'Cancelled';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_id	username	restaurant_name	order_date	status	Reason
4	Kajal Kakade	Veggie Bowl	2023-01-08 00:00:00	cancelled	The food arrived cold because of the late delivery.
10	Vikas Mane	Urban Tadka	2024-09-10 00:00:00	cancelled	The order was canceled because it took too long to confirm

9. **Find all restaurants offering a specific cuisine:**

```
SELECT name AS Restaurant_Name, location
FROM Restaurants
WHERE cuisine = 'Mexican';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Restaurant_Name	location
Taco Fiesta	Hadpsar