"SWIGGY DATA ANALYSIS AND INSIGHTS USING SQL"

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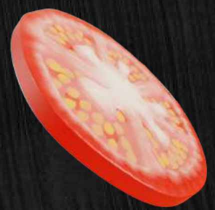
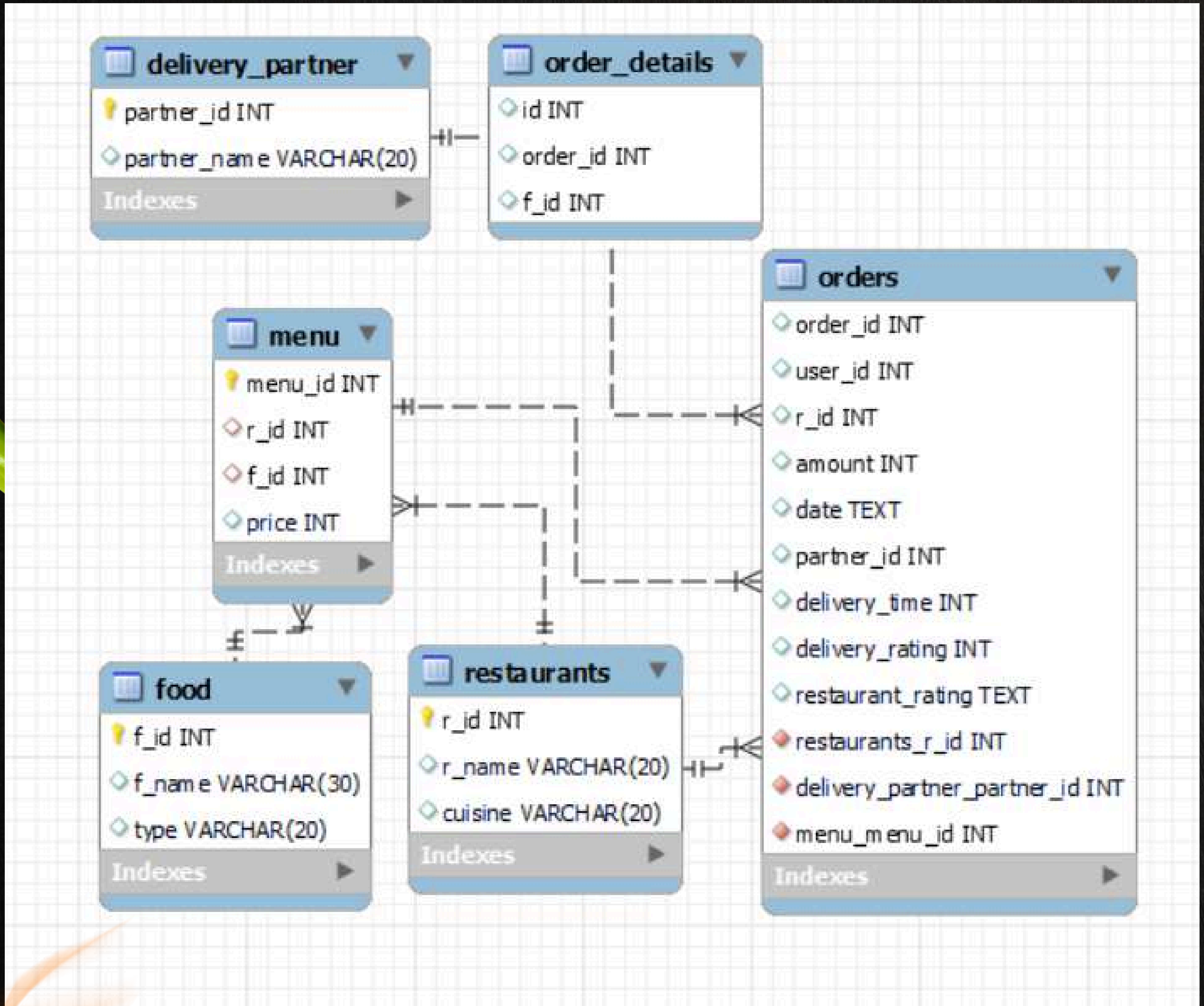
OBJECTIVES

- **Customer Behavior Analysis:** Identify and segment customers based on their ordering habits, including identifying inactive customers.
- **Pricing Insights:** Analyze dish pricing trends to provide insights for optimizing menu pricing.
- **Performance Metrics:** Evaluate restaurant performance by analyzing order counts and customer retention rates.
- **Revenue Analysis:** Track Swiggy's revenue growth trends and identify key drivers.
- **Sales Optimization:** Identify high-performing restaurants with significant sales and repeated customers.
- **Customer Preferences:** Understand customer preferences to tailor offerings, focusing on their favorite dishes.



DATABASE SCHEMA



delivery_partner
- partner_id INT
- partner_name VARCHAR(20)
- Indexes

order_details
- id INT
- order_id INT
- f_id INT

orders
- order_id INT
- user_id INT
- r_id INT
- amount INT
- date TEXT
- partner_id INT
- delivery_time INT
- delivery_rating INT
- restaurant_rating TEXT
- restaurants_r_id INT
- delivery_partner_partner_id INT
- menu_menu_id INT
- Indexes

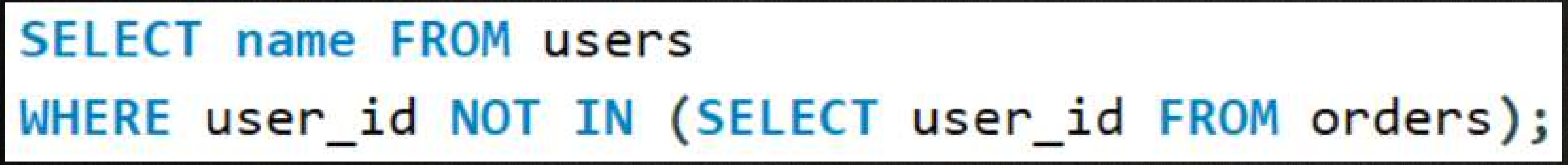
menu
- menu_id INT
- r_id INT
- f_id INT
- price INT
- Indexes

food
- f_id INT
- f_name VARCHAR(30)
- type VARCHAR(20)
- Indexes

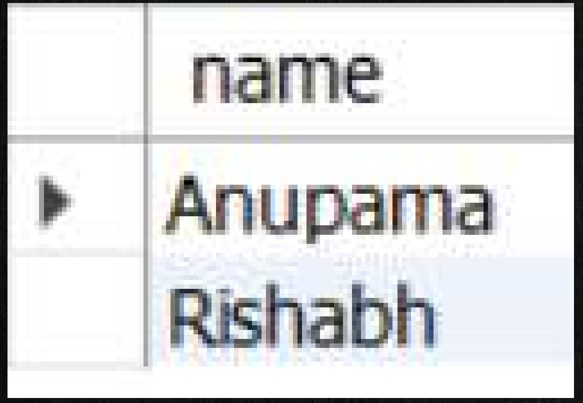
restaurants
- r_id INT
- r_name VARCHAR(20)
- cuisine VARCHAR(20)
- Indexes

QUESTION 1

Find customers who have never ordered.



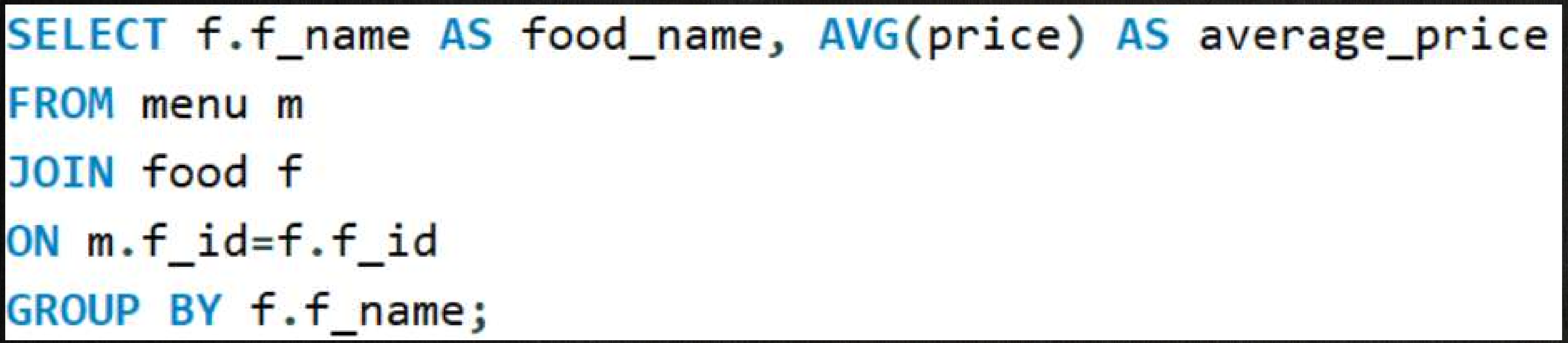
```
SELECT name FROM users
WHERE user_id NOT IN (SELECT user_id FROM orders);
```



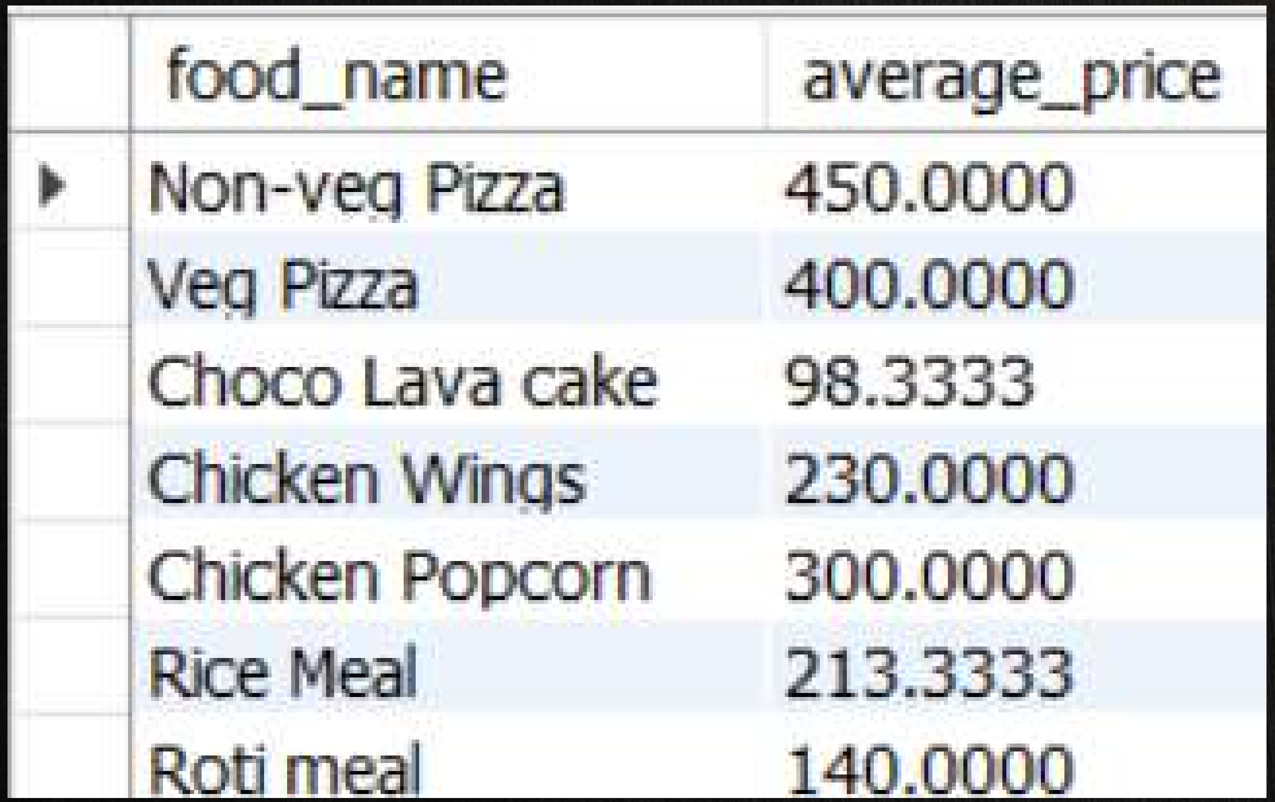
	name
▶	Anupama
	Rishabh

QUESTION 2

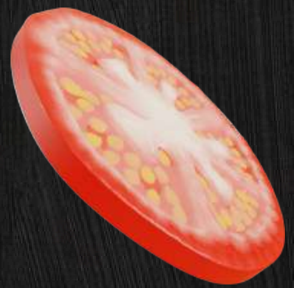
Average Price/dish



```
SELECT f.f_name AS food_name, AVG(price) AS average_price
FROM menu m
JOIN food f
ON m.f_id=f.f_id
GROUP BY f.f_name;
```

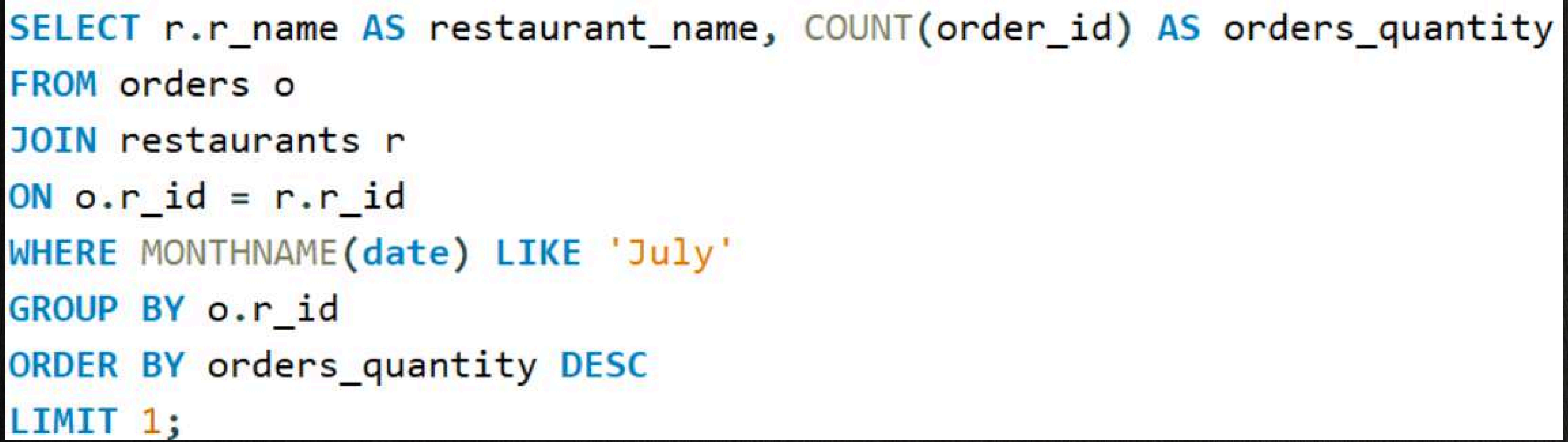


food_name	average_price
Non-veg Pizza	450.0000
Veg Pizza	400.0000
Choco Lava cake	98.3333
Chicken Wings	230.0000
Chicken Popcorn	300.0000
Rice Meal	213.3333
Roti meal	140.0000

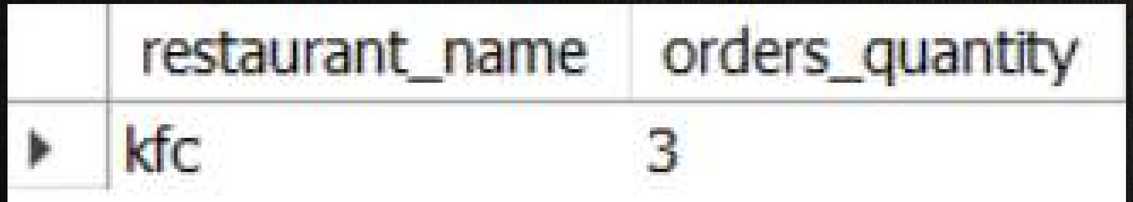


QUESTION 3

Find top restaurant in terms of number of orders for a given month.



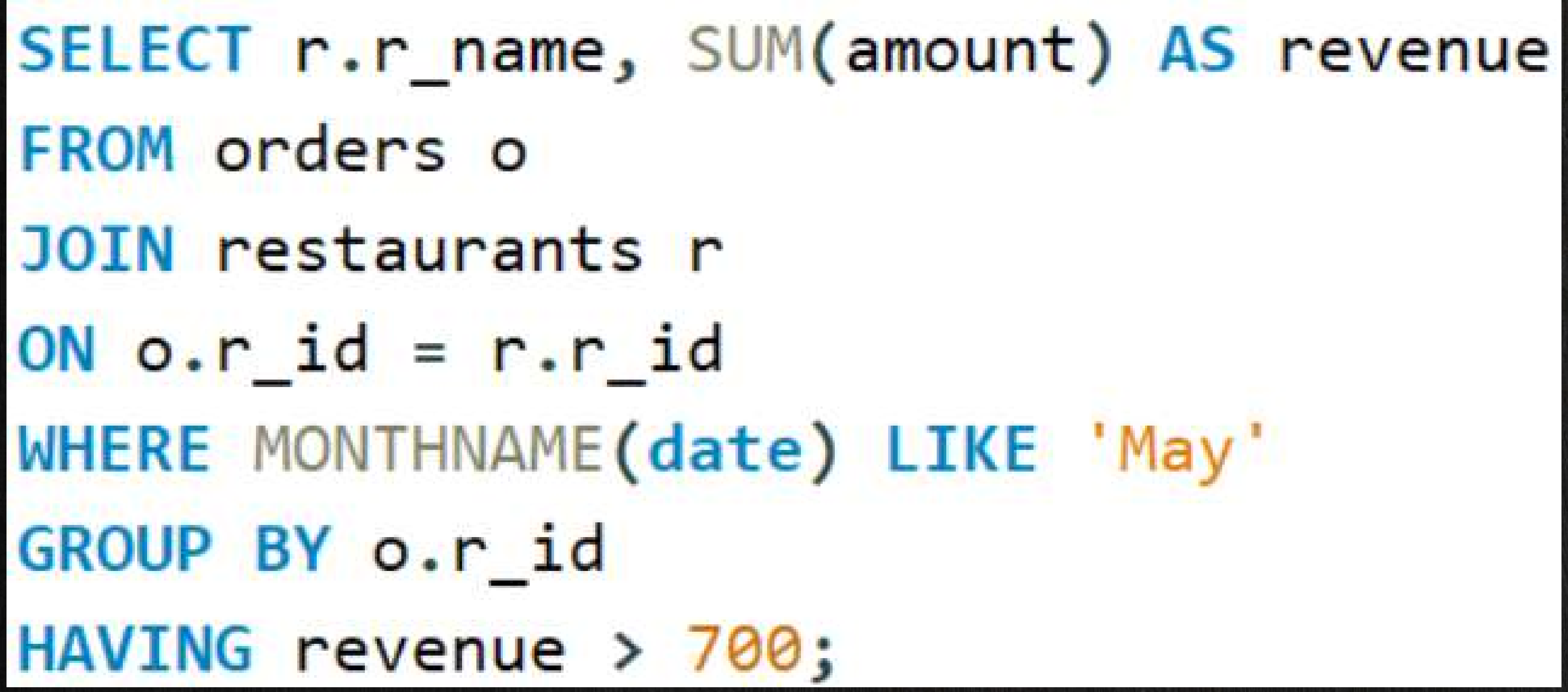
```
SELECT r.r_name AS restaurant_name, COUNT(order_id) AS orders_quantity
FROM orders o
JOIN restaurants r
ON o.r_id = r.r_id
WHERE MONTHNAME(date) LIKE 'July'
GROUP BY o.r_id
ORDER BY orders_quantity DESC
LIMIT 1;
```



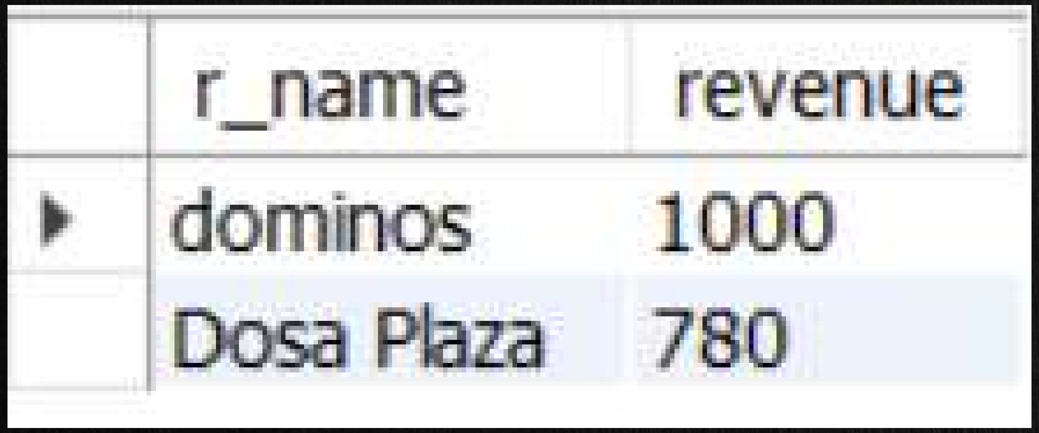
	restaurant_name	orders_quantity
▶	kfc	3

QUESTION 4

Restaurants with monthly sales greater than x.



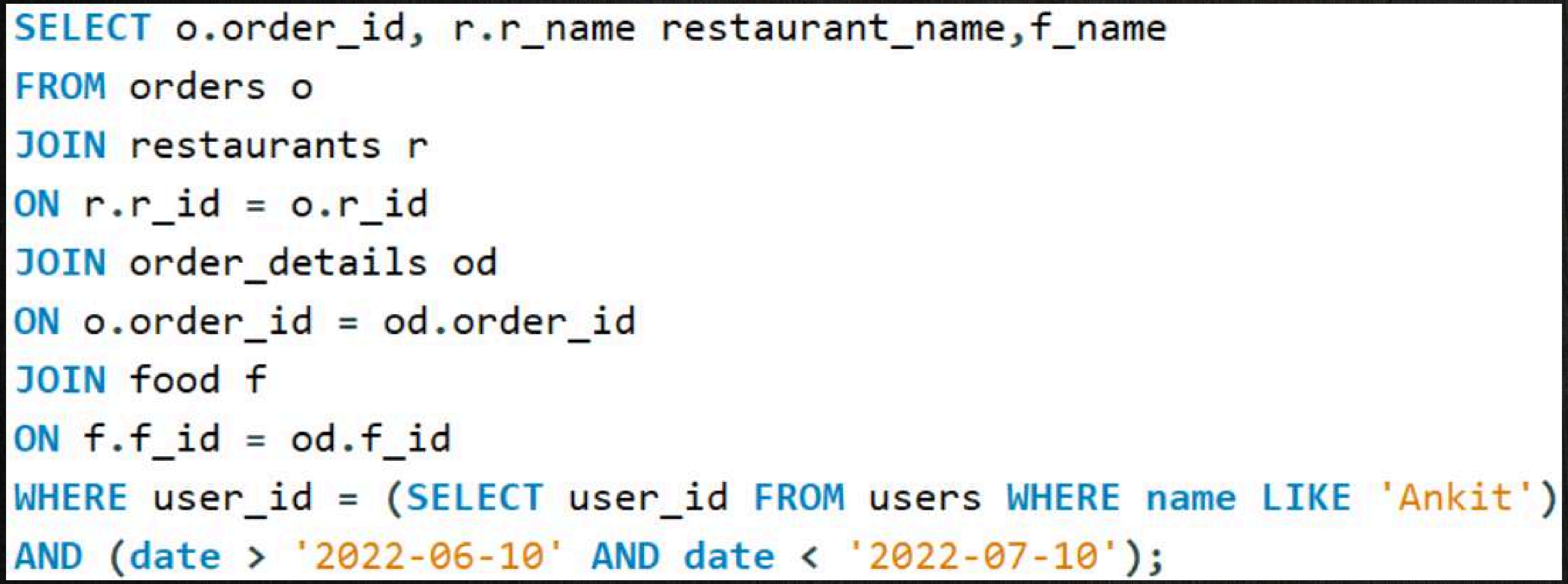
```sql
SELECT r.r_name, SUM(amount) AS revenue
FROM orders o
JOIN restaurants r
ON o.r_id = r.r_id
WHERE MONTHNAME(date) LIKE 'May'
GROUP BY o.r_id
HAVING revenue > 700;
```



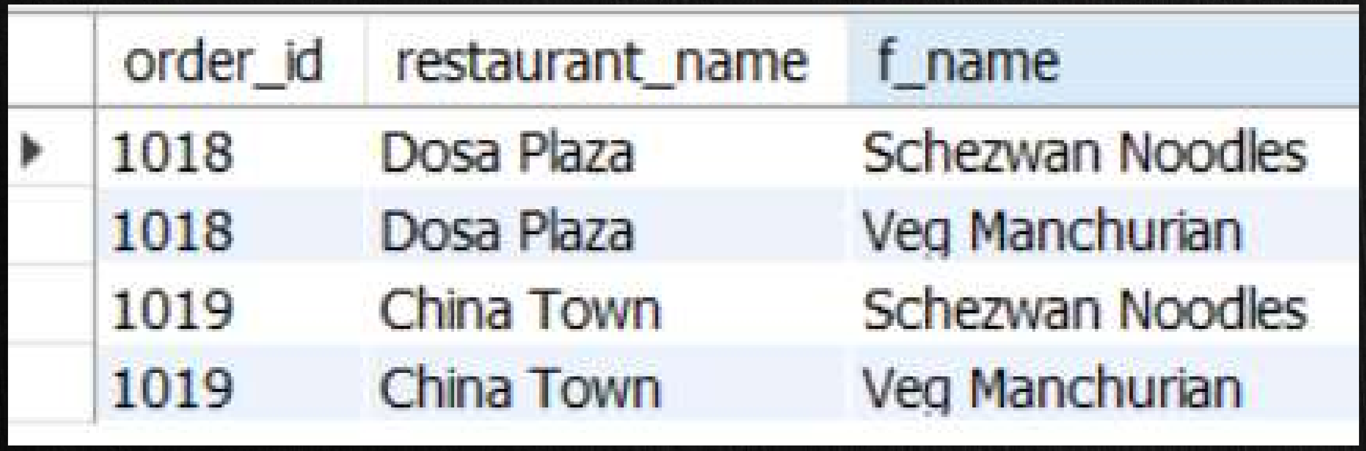
r_name	revenue
dominos	1000
Dosa Plaza	780

QUESTION 5

Show all orders with order details for a particular customer in a particular data range.



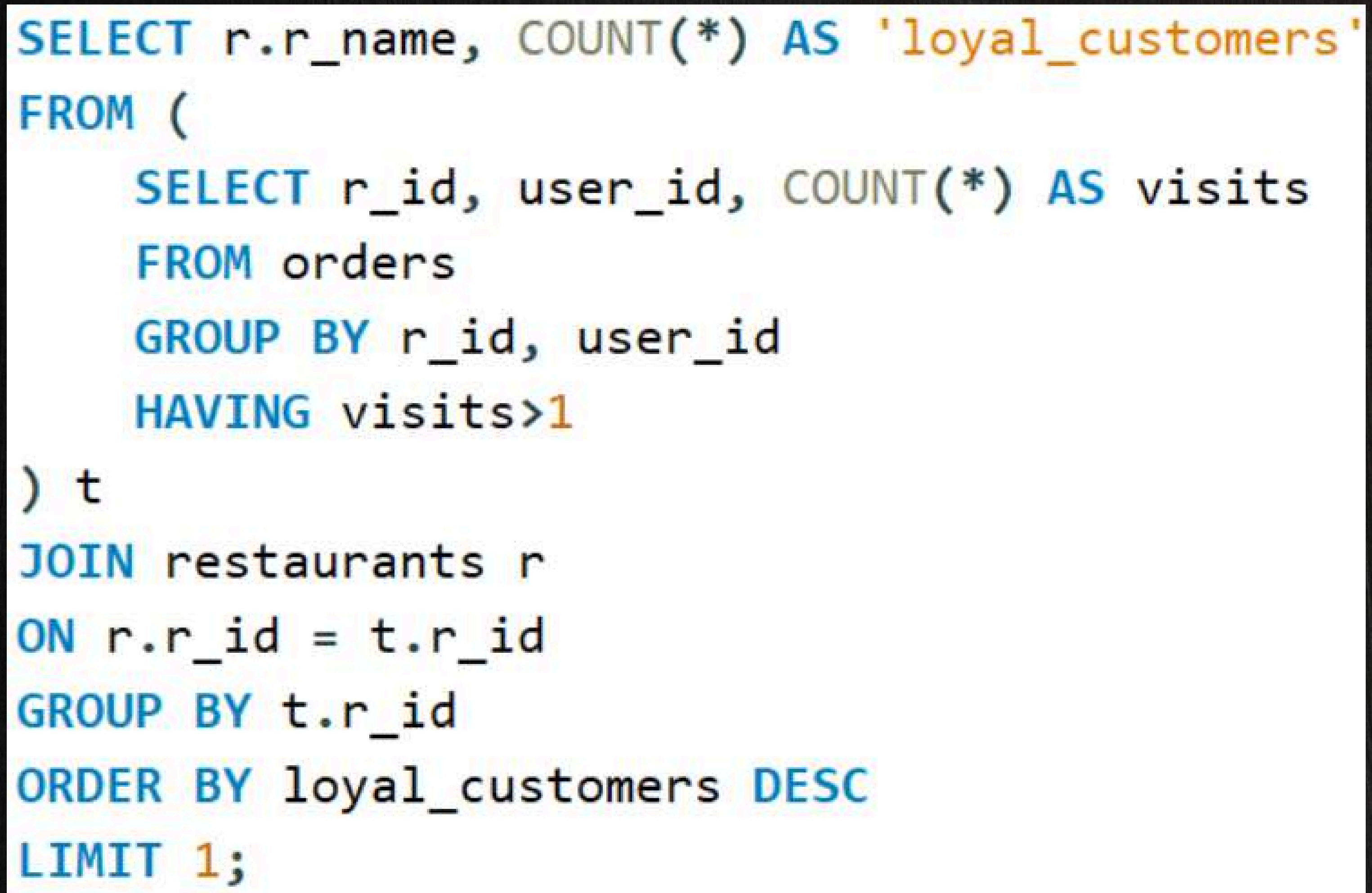
```
SELECT o.order_id, r.r_name restaurant_name,f_name
FROM orders o
JOIN restaurants r
ON r.r_id = o.r_id
JOIN order_details od
ON o.order_id = od.order_id
JOIN food f
ON f.f_id = od.f_id
WHERE user_id = (SELECT user_id FROM users WHERE name LIKE 'Ankit')
AND (date > '2022-06-10' AND date < '2022-07-10');
```



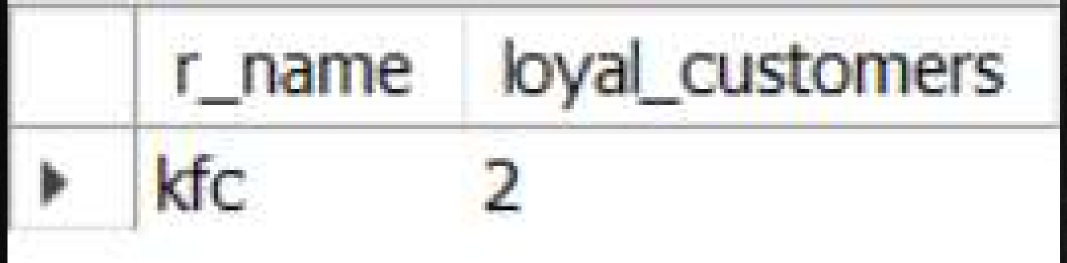
	order_id	restaurant_name	f_name
▶	1018	Dosa Plaza	Schezwan Noodles
	1018	Dosa Plaza	Veg Manchurian
	1019	China Town	Schezwan Noodles
	1019	China Town	Veg Manchurian

QUESTION 6

Find restaurants with max repeated customers.



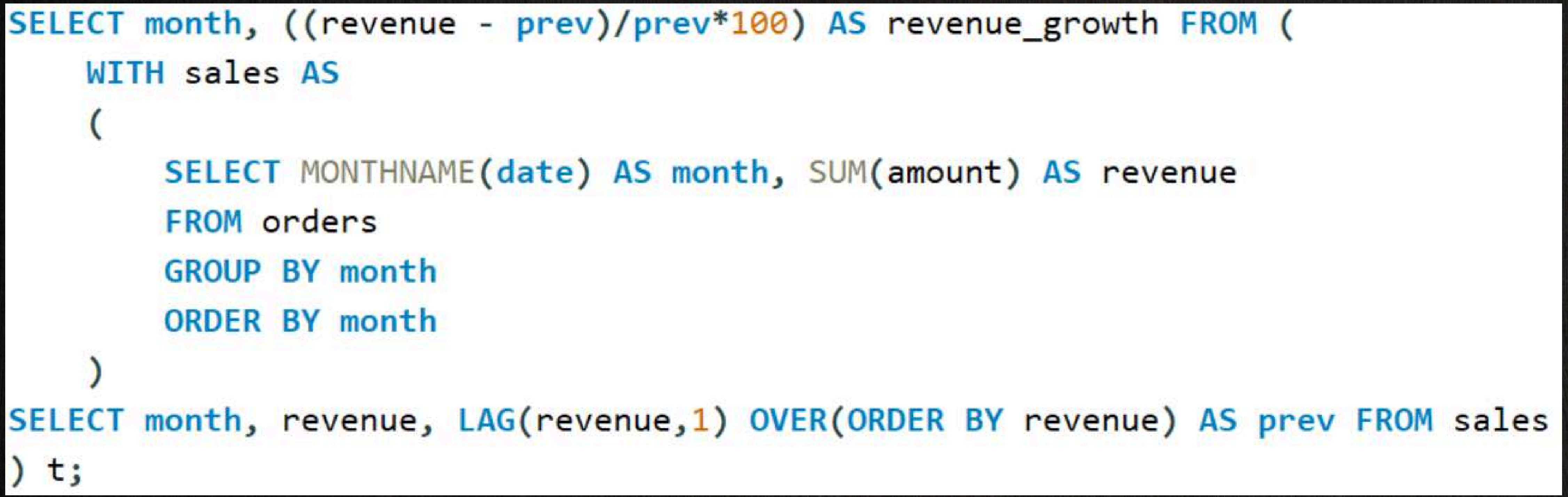
```sql
SELECT r.r_name, COUNT(*) AS 'loyal_customers'
FROM (
    SELECT r_id, user_id, COUNT(*) AS visits
    FROM orders
    GROUP BY r_id, user_id
    HAVING visits>1
) t
JOIN restaurants r
ON r.r_id = t.r_id
GROUP BY t.r_id
ORDER BY loyal_customers DESC
LIMIT 1;
```



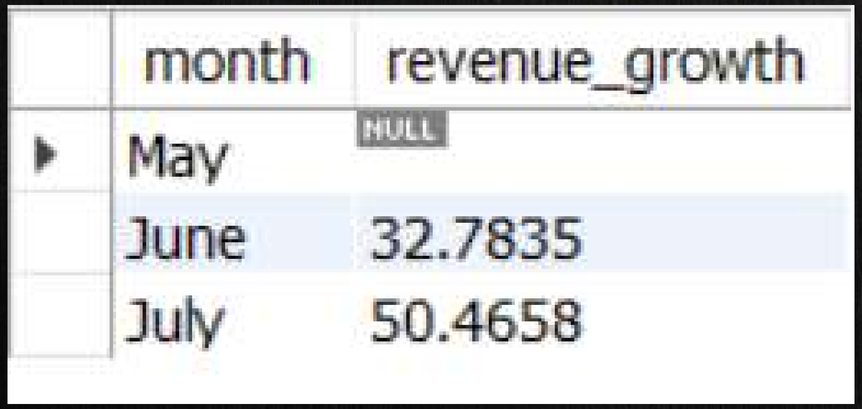
	r_name	loyal_customers
▸	kfc	2

QUESTION 7

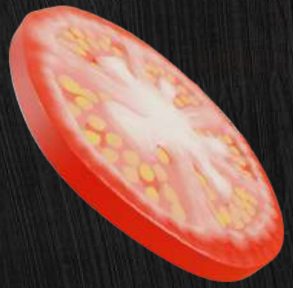
Month over month revenue growth of swiggy.



```sql
SELECT month, ((revenue - prev)/prev*100) AS revenue_growth FROM (
    WITH sales AS
    (
        SELECT MONTHNAME(date) AS month, SUM(amount) AS revenue
        FROM orders
        GROUP BY month
        ORDER BY month
    )
SELECT month, revenue, LAG(revenue,1) OVER(ORDER BY revenue) AS prev FROM sales
) t;
```

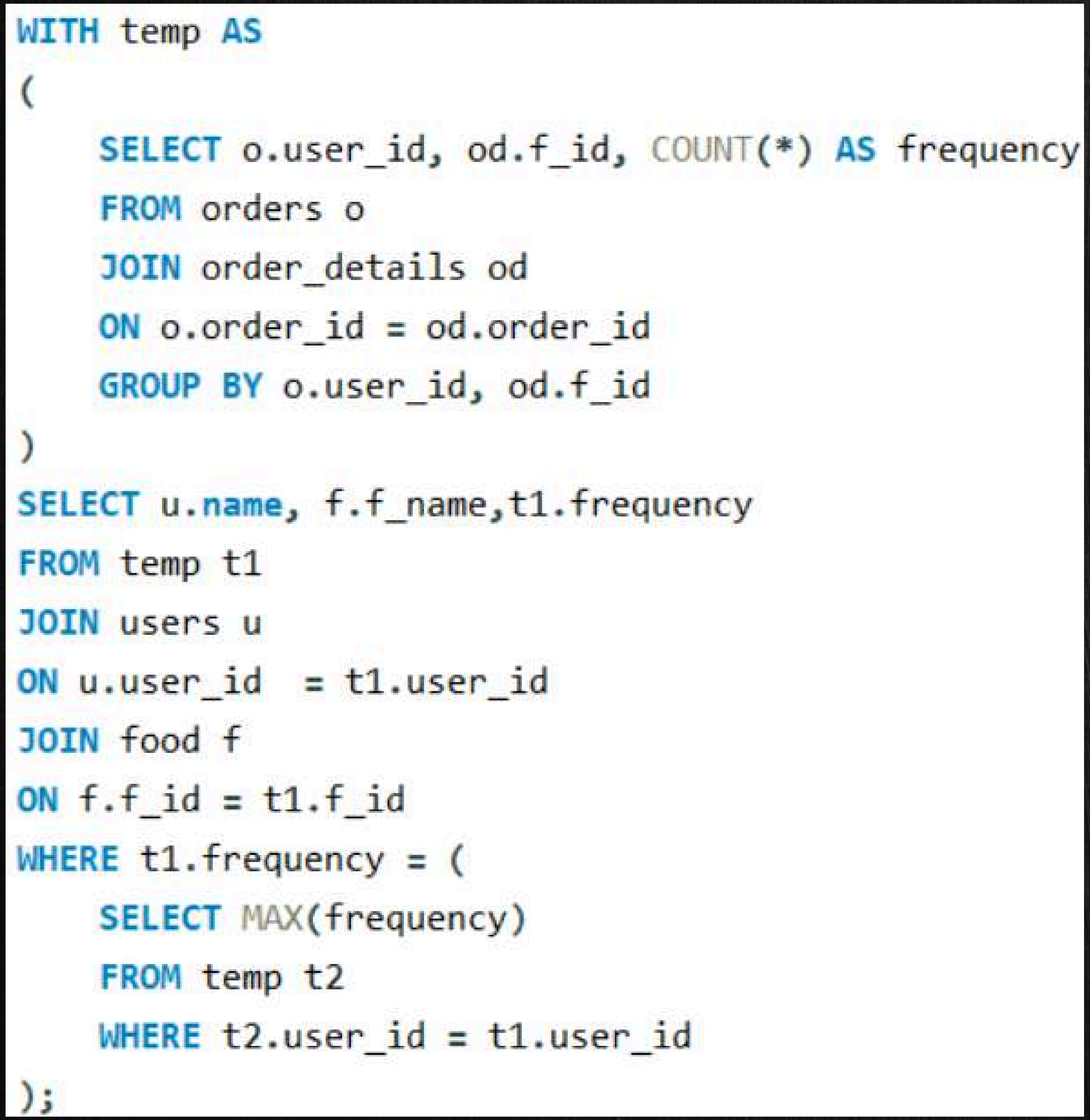


	month	revenue_growth
▸	May	NULL
	June	32.7835
	July	50.4658

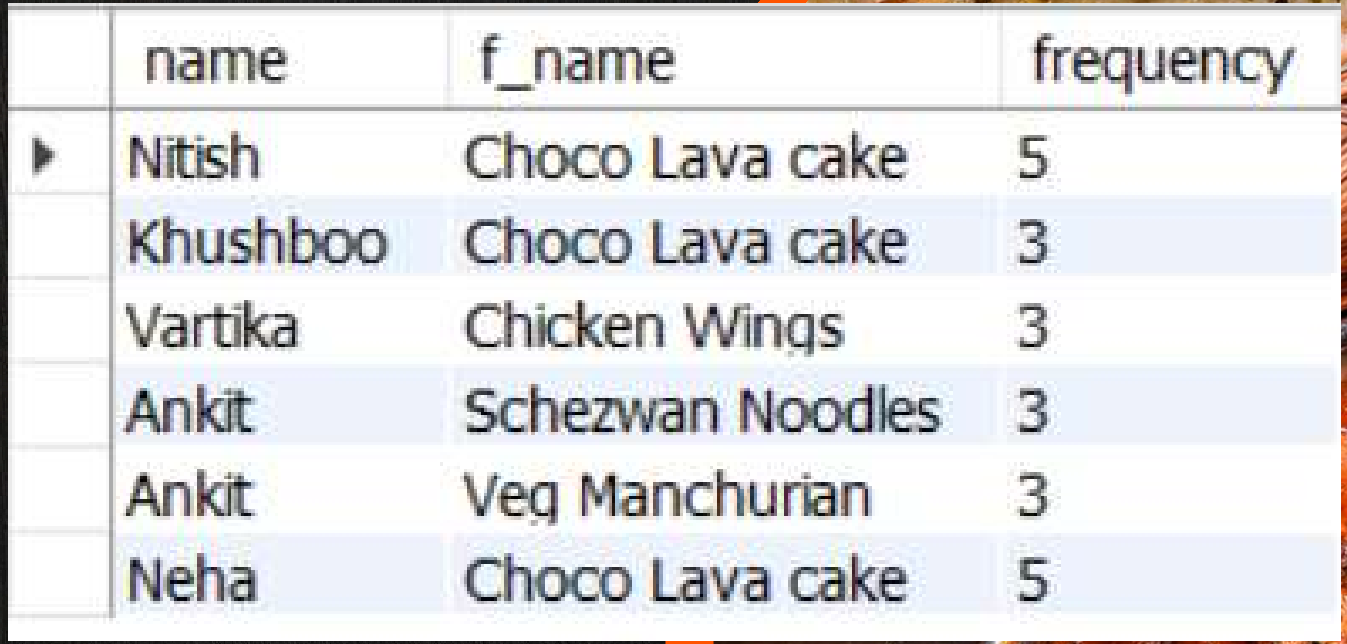


QUESTION 8

Customers favorite food.



```sql
WITH temp AS
(
    SELECT o.user_id, od.f_id, COUNT(*) AS frequency
    FROM orders o
    JOIN order_details od
    ON o.order_id = od.order_id
    GROUP BY o.user_id, od.f_id
)
SELECT u.name, f.f_name,t1.frequency
FROM temp t1
JOIN users u
ON u.user_id  = t1.user_id
JOIN food f
ON f.f_id = t1.f_id
WHERE t1.frequency = (
    SELECT MAX(frequency)
    FROM temp t2
    WHERE t2.user_id = t1.user_id
);
```



name	f_name	frequency
Nitish	Choco Lava cake	5
Khushboo	Choco Lava cake	3
Vartika	Chicken Wings	3
Ankit	Schezwan Noodles	3
Ankit	Veg Manchurian	3
Neha	Choco Lava cake	5