**📘 Day 59 – SQL Challenge (Mock Interview Case Study)**

**Dataset Theme:** Online Food Delivery Platform (like Swiggy/Zomato/UberEats)

**Tables & Sample Data**

**Customers**

|  |  |  |  |
| --- | --- | --- | --- |
| CustomerID | Name | City | JoinDate |
| 1 | Alice | New York | 2021-01-15 |
| 2 | Bob | London | 2020-06-10 |
| 3 | Charlie | Delhi | 2019-03-25 |
| 4 | David | Toronto | 2022-07-18 |
| 5 | Eva | Berlin | 2020-12-01 |

**Restaurants**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RestaurantID | Name | City | Cuisine | Rating |
| 101 | Pizza Palace | New York | Italian | 4.5 |
| 102 | Curry House | London | Indian | 4.2 |
| 103 | Noodle Bar | Delhi | Chinese | 4 |
| 104 | Burger Hub | Toronto | American | 3.8 |
| 105 | Sushi Spot | Berlin | Japanese | 4.7 |

**Orders**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| OrderID | CustomerID | RestaurantID | OrderDate | Amount | Status |
| 201 | 1 | 101 | 2022-01-10 | 50 | Completed |
| 202 | 2 | 102 | 2022-01-15 | 30 | Completed |
| 203 | 3 | 103 | 2022-02-05 | 25 | Cancelled |
| 204 | 4 | 104 | 2022-02-10 | 45 | Completed |
| 205 | 5 | 105 | 2022-03-12 | 60 | Completed |
| 206 | 1 | 101 | 2022-04-01 | 70 | Completed |
| 207 | 3 | 103 | 2022-04-15 | 35 | Completed |
| 208 | 2 | 102 | 2022-05-01 | 40 | Completed |
| 209 | 4 | 104 | 2022-05-10 | 55 | Completed |
| 210 | 5 | 105 | 2022-06-01 | 65 | Completed |

**Delivery**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DeliveryID | OrderID | DeliveryDate | DeliveryTimeMins | DeliveryStatus |
| 301 | 201 | 2022-01-10 | 35 | Delivered |
| 302 | 202 | 2022-01-15 | 40 | Delivered |
| 303 | 203 | 2022-02-05 | NULL | Not Delivered |
| 304 | 204 | 2022-02-10 | 50 | Delivered |
| 305 | 205 | 2022-03-12 | 30 | Delivered |
| 306 | 206 | 2022-04-01 | 60 | Delivered |
| 307 | 207 | 2022-04-15 | 55 | Delivered |
| 308 | 208 | 2022-05-01 | 45 | Delivered |
| 309 | 209 | 2022-05-10 | 50 | Delivered |
| 310 | 210 | 2022-06-01 | 40 | Delivered |

**Ratings**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RatingID | OrderID | CustomerID | RestaurantID | Rating |
| 401 | 201 | 1 | 101 | 5 |
| 402 | 202 | 2 | 102 | 4 |
| 403 | 204 | 4 | 104 | 3 |
| 404 | 205 | 5 | 105 | 5 |
| 405 | 206 | 1 | 101 | 4 |
| 406 | 207 | 3 | 103 | 4 |
| 407 | 208 | 2 | 102 | 5 |
| 408 | 209 | 4 | 104 | 3 |
| 409 | 210 | 5 | 105 | 5 |

**Questions (Mock Interview Style)**

1. Find the **top 3 restaurants by revenue**.
2. Identify customers who have ordered from **more than 1 cuisine type**.
3. Calculate the **average delivery time by city** and rank them.
4. Find the **most loyal customers** (highest number of completed orders per restaurant).
5. Show restaurants with **average customer rating ≥ 4.5** and **more than 2 reviews**.
6. Calculate **month-over-month revenue growth** for the platform.
7. Find **late deliveries**: where DeliveryTimeMins > 45.
8. Identify customers who have spent **above average** in their city.
9. Using a **window function**, calculate the **running total of spend per customer**.
10. Find orders where **the rating is below the restaurant’s average rating** (customer dissatisfaction).

**Bonus (Advanced Case Study):**  
11. Detect **at-risk restaurants**:

* Average rating < 4, AND
* More than 20% of deliveries late.