SQL Case Study on Zomato Dataset

- 1. Select a particular Database

```
SELECT * FROM zomato.orders;

-- or

-- USE Zomato
```

- 2. Count number of rows from any tables

```
SELECT COUNT(*) FROM zomato.orders;
```

- Return n random 5 rows

```
SELECT * FROM zomato.users ORDER BY rand() LIMIT 5;
```

- Find rows of Null values

```
SELECT * FROM zomato.orders
WHERE restaurant_rating IS NULL;
```

- To replace Null values with zero

```
UPDATE zomato.orders SET restaurant_rating = 0
WHERE restaurant_rating IS NULL
```

- Find the number of orders place by each customer

```
SELECT t2.name, COUNT(*) FROM zomato.orders t1
JOIN zomato.users t2
ON t1.user_id = t2.user_id
GROUP BY t2.name
```

- Find the number of orders place by each customer

```
SELECT t1.name, COUNT(*) FROM zomato.users t1
JOIN zomato.orders t2
ON t1.user_id = t2.user_id
GROUP BY t1.name
```

- Find restaurant with most number of menu items.alter

```
SELECT t1.r_name, COUNT(*) AS 'menu_items' FROM zomato.restaurants t1
JOIN zomato.menu t2
ON t1.r_id = t2.r_id
GROUP BY t1.r_name
```

- Find number of votes and avg rating for all the restaurant

```
SELECT t1.r_name,COUNT(*) AS 'votes', ROUND(AVG(t2.restaurant_rating), 2) AS
'avg_rating'
FROM zomato.restaurants t1
JOIN zomato.orders t2
ON t1.r_id = t2.r_id
WHERE t2.restaurant_rating IS NOT NULL
GROUP BY t1.r_name
-- HAVING avg_rating > 3  : Can filter after groupby
```

- Find the food that is being sold at most number of restaurants

```
SELECT  t3.f_name, COUNT(*) AS 'no_of_orders' FROM zomato.orders t1
JOIN zomato.order_details t2
ON t1.order_id = t2.order_id
JOIN zomato.food t3
ON t2.f_id = t3.f_id
GROUP BY t3.f_name
ORDER BY no_of_orders DESC
```

- Find restaurant with max revenue in a given month

```
SELECT t2.r_name, SUM(t1.amount) AS 'revenue' FROM zomato.orders t1
JOIN zomato.restaurants t2
ON t1.r_id = t2.r_id
WHERE  MONTHNAME(DATE(t1.date)) = 'june'
GROUP BY t2.r_name
ORDER BY revenue DESC LIMIT 1
```

- Find restaurant with sales > x

```
SELECT t2.r_name, SUM(t1.amount) AS 'revenue' FROM zomato.orders t1
JOIN zomato.restaurants t2
ON t1.r_id = t2.r_id
GROUP BY t2.r_name
HAVING revenue > 3000
```

- Find Customer who have never ordered

```
SELECT user_id, name FROM zomato.users

EXCEPT

SELECT t1.user_id, name FROM zomato.orders t1

JOIN zomato.users t2

ON t1.user_id = t2.user_id
```

- Find order details of a particular customer in a given date range

```
SELECT t1.name, t2.order_id, t4.f_name, t4.type, t2.amount FROM zomato.users t1

JOIN zomato.orders t2

ON t1.user_id = t2.user_id

JOIN zomato.order_details t3

ON t2.order_id = t3.order_id

JOIN zomato.food t4

ON t3.f_id = t4.f_id

WHERE t1.name = 'Ankit' AND DATE(t2.date) BETWEEN '2022-05-15' AND '2022-06-15'
```

- Customer favorite food

```
SELECT t1.name, t4.f_name,COUNT(*) AS 'most_purchase' FROM zomato.users t1
JOIN zomato.orders t2
ON t1.user_id = t2.user_id
JOIN zomato.order_details t3
ON t2.order_id = t3.order_id
JOIN zomato.food t4
ON t3.f_id = t4.f_id
WHERE t1.name = 'Ankit'
GROUP BY t4.f_name
ORDER BY most_purchase DESC LIMIT 1
```

- Find most costly restaurants (Avg price/ Dish)

```
SELECT r_name, (SUM(price) / COUNT(*)) AS 'avg_price' FROM zomato.menu t1
JOIN zomato.restaurants t2
ON t1.r_id = t2.r_id
GROUP BY r_name
ORDER BY avg_price DESC LIMIT 1
```

- Find delivery partner Compensation using the formula (# deliveries * 100 + 1000*avg_rating)

```
SELECT t2.partner_name, (COUNT(*)*100 +  AVG(t1.delivery_rating)*1000) AS 'salary' FROM zomato.orders t1

JOIN zomato.delivery_partner t2

ON t1.partner_id = t2.partner_id

GROUP BY t2.partner_name

ORDER BY salary DESC
```

- Find revenue per month for a restaurant :
- Find correlation between delivery_time and total rating

```
SELECT CORR(delivery_time, delivery_rating) FROM zomato.orders
```

- Find all the veg restaurants

```
SELECT t3.r_name FROM zomato.menu t1

JOIN zomato.food t2

ON t1.f_id = t2.f_id

JOIN zomato.restaurants t3

ON t1.r_id = t3.r_id

GROUP BY t3.r_name

HAVING MIN(type) = 'veg' AND MAX(type) = 'veg'
```

- Find Min and Max order for all the customers

```
SELECT t3.name, MIN(t1.amount) AS 'min_order', MAX(t1.amount) 'max_order'
FROM zomato.orders t1

JOIN zomato.order_details t2

ON t1.order_id = t2.order_id

JOIN zomato.users t3

ON t1.user_id = t3.user_id

GROUP BY t3.name
```