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Date: 25-03-2024

Zomato Case Study

Q1. Select a particular database

- USE zomato;

Q2. Count number of rows

- SELECT COUNT(*) FROM users;
  Output: 7

Q3. return n random records

- SELECT * FROM users ORDER BY rand() LIMIT 5;

Q4. Find null values

- SELECT * FROM orders WHERE restaurant_rating IS NULL;

Q5. Find the number of orders placed by each customer

- SELECT t2.user_id,t2.name,

COUNT(*) AS '#orders' FROM orders t1

JOIN users t2

ON t1.user_id = t2.user_id

GROUP BY t2.user_id,t2.name;

Output:

user_id	name	#orders
1	Nitish	5
2	Khushboo	5
3	Vartika	5
4	Ankit	5
5	Neha	5

Q6. Find restaurant with most number of menu_items

- SELECT r_name,

COUNT(*) AS 'menu_items'

FROM restaurants t1

JOIN menu t2

ON t1.r_id = t2.r_id

GROUP BY r_name;

Output:

r_name	menu_items
dominos	3
kfc	3
Box8	3
Dosa Plaza	3
China Town	3

Q7. Find number of votes and average rating for all the restaurants

- SELECT r_name,

COUNT(*) AS 'num_votes',

ROUND(AVG(restaurant_rating),2) AS 'rating'

FROM orders t1

JOIN restaurants t2

ON t1.r_id = t2.r_id

WHERE restaurant_rating IS NOT NULL

GROUP BY r_name;

Output:

r_name	num_votes	rating
Dominos	5	1
Kfc	8	1.38
Box8	4	3.5
Dosa Plaza	5	2.2
China Town	3	3.67

Q8. Find the food that is being sold at most number of restaurants

- SELECT f_name,

COUNT(*) FROM menu t1

JOIN food t2

ON t1.f_id = t2.f_id

GROUP by f_name

ORDER BY COUNT(*) DESC LIMIT 1;

Output:

f_name	Count(*)

Choco Lava cake	3

Q9. Find restaurants with maximum revenue in a given month

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

Output:

r_name	revenue
dominos	1000
kfc	645
Dosa Plaza	740

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

Output:

r_name	revenue
kfc	990

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

Output:

r_name	revenue
kfc	1935

Q10. Month by month revnue for particular restaurant ‘kfc’

- SELECT MONTHNAME(date),

SUM(amount) as 'revenue' FROM orders t1

JOIN restaurants t2

ON t1.r_id = t2.r_id

WHERE r_name = 'kfc'

GROUP BY MONTHNAME(date)

ORDER BY MONTHNAME(date);

Output:

MONTHNAME(date)	revenue
July	1935
June	990
May	645

Q11. Find restaurants with sales > 1500

- SELECT r_name,

SUM(amount) AS 'revenue' FROM orders t1

JOIN restaurants t2

ON t1.r_id = t2.r_id

GROUP BY r_name

HAVING revenue > 1500;

Output:

r_name	revenue
dominos	3050
kfc	3570

Q12. Find customers who have never ordered

- SELECT user_id,

name FROM users

EXCEPT

SELECT t1.user_id, name FROM orders t1

JOIN users t2

ON t1.user_id = t2.user_id;

Output:

user_id	name
6	Anupama
7	Rishabh

Q13. Show order details of a particular customer in a given date range From 15 May to 15 June.

- SELECT t1.order_id, f_name FROM orders t1

JOIN order_details t2

ON t1.order_id = t2.order_id

JOIN food t3

ON t2.f_id = t3.f_id

WHERE user_id = 1 AND date BETWEEN '2022-05-15' AND '2022-06-15';

Output:

order_id	f_name
1003	Choco Lava Cake
1002	Choco Lava Cake
1002	Chicken Wings
1003	Rice Meal

Q14. Find most costly restaurants(AVG price/dish)

SELECT r_name, SUM(price)/COUNT(*) AS 'avg_price' FROM menu t1

JOIN restaurants t2

ON t1.r_id = t2.r_id

GROUP BY r_name

ORDER BY avg_price DESC LIMIT 1;

Output:

r_name	avg_price
dominos	316.6667

Q15. Find delivery partner compensation using the formula:

(#deliveries*100+1000*avg_rating)

- SELECT t1.partner_id,t2.partner_name,

(COUNT(*) *100 + AVG(delivery_rating)*1000) As 'salary'

FROM orders t1

JOIN delivery_partner t2

ON t1.partner_id = t2.partner_id

GROUP BY t1.partner_id,t2.partner_name;

Output:

partner_id	partner_name	salary
1	Suresh	3557.1429
5	Gyandeep	3900.0000
4	Kartik	3400.0000
2	Amit	3600.0000
3	Lokesh	4400.0000

Q16. Find all veg restaurants

- SELECT r_name FROM menu t1

JOIN food t2

ON t1.f_id = t2.f_id

JOIN restaurants t3

ON t1.r_id = t3.r_id

GROUP BY r_name

HAVING MIN(type) = 'Veg' AND MAX(type) = 'Veg';

Output:

R_name
Box8
China Town
Dosa Plaza

Q17.Find min and max order value for all the customers

- SELECT name,

MIN(amount),MAX(amount),

AVG(amount) FROM orders t1

JOIN users t2

ON t1.user_id = t2.user_id

GROUP BY name;

Output:

name	MIN(amount)	MAX(amount)	AVG(amount)
Nitish	220	550	333.0000
Khushboo	240	950	534.0000

Vartika	180	450	264.0000
Ankit	300	400	360.0000
Neha	550	645	607.0000

Key Insights:

- **Customer Order Behavior**: Each customer appears to have placed a consistent number of orders (5), suggesting a stable level of engagement with the platform.
- **Menu Standardization**: Across the restaurants in the dataset, there appears to be a uniform offering of 3 menu items per establishment, hinting at potential standardization efforts within the platform.
- **Popular Food Item**: The "Choco Lava Cake" emerges as a widely available and sought-after food item, being offered at the highest number of restaurants within the dataset.
- **Revenue Dynamics**: The identification of top-performing restaurants based on monthly revenue underscores the importance of understanding revenue fluctuations over time for effective business planning.
- **Restaurant-Specific Revenue Trends**: By examining revenue trends on a monthly basis for the restaurant "KFC," stakeholders gain actionable insights into the performance dynamics of individual establishments.
- **High-Performing Restaurants**: Restaurants generating sales exceeding $1500 demonstrate robust performance and may warrant further investigation for potential growth strategies or partnership opportunities.
- **Order Analysis**: Detailed order analysis for a specific customer within a defined date range provides granular insights into individual purchasing patterns, facilitating personalized marketing strategies.
- **Price Sensitivity**: The identification of "Dominos" as the restaurant with the highest average price per dish suggests potential premium positioning within the market segment.
- **Delivery Partner Compensation**: Calculations based on delivery volumes and average ratings provide transparency and fairness in compensating delivery partners, fostering positive relationships within the ecosystem.
- **Dietary Preferences**: Identification of vegetarian restaurants caters to diverse dietary preferences and enhances user experience by facilitating informed dining choices.
- **Customer Spending Patterns**: Analysis of minimum, maximum, and average order values sheds light on customer spending behaviors, informing targeted marketing campaigns and pricing strategies.