select \* from Customer;

select \* from Restaurant;

select \* from Item;

select \* from Agents;

select \* from Agents\_Areas;

select \* from Caters;

select \* from Prefers;

select \* from foodorder;

select \* from Customer\_Address;

select \* from Ordered\_Items;

select \* from Delivery;

select \* from Payment;

QUESTIONS

1. List all the items delivered by 'Surya'
2. Find the number of items delivered by each agent
3. Find the number of items bought by each customer
4. The total amount the customer has paid
5. Who are the customers that have purchased all the items purchased by ‘Asha’
6. Name the agent who has had most number of delivery orders… is it the same as the agent who delivered items of the highest cost(total)... is it the same as the agent who had the highest number of items to be delivered
7. Which is the most popular dish among the customers
8. // Retrieve the dish most frequently bought by each customer
9. Which restaurant is the most popular according to number of purchases…. What is its rating
10. Which area has the popular restaurants
11. Which area is the source of most number of customers
12. Draw a mapping between the number of restaurants, customers and agents locality-wise

Ans :

1 : List all the items delivered by 'Surya'

SELECT Item\_Name FROM Item WHERE Item\_Id in

(

SELECT Item\_Id FROM Ordered\_Items WHERE Order\_No in

(

SELECT Order\_No FROM Delivery WHERE Agent\_Vehicle\_No =

(

SELECT Agent\_Vehicle\_No FROM Agents WHERE Agent\_First\_Name= 'Surya'

)

)

);

2 : Find the number of items delivered by each agent

SELECT Agent\_First\_Name, COUNT(Item\_Id)

FROM Agents, Delivery, Ordered\_Items

WHERE Delivery.Agent\_Vehicle\_No = Agents.Agent\_Vehicle\_No and Delivery.Order\_No = Ordered\_Items.Order\_No

GROUP BY Agent\_First\_Name;

3 : Find the number of items bought by each customer

SELECT Customer\_First\_Name, COUNT(Item\_Id)

FROM Customer, foodorder, Ordered\_Items

WHERE foodorder.Customer\_Email\_Id = Customer.Customer\_Email\_Id and foodorder.Order\_No = Ordered\_Items.Order\_No

GROUP BY Customer\_First\_Name;

4 : The total amount the customer has paid

SELECT Customer\_First\_Name, SUM(Item\_Price)

FROM Item, Customer, foodorder, Ordered\_Items

WHERE foodorder.Customer\_Email\_Id = Customer.Customer\_Email\_Id and foodorder.Order\_No = Ordered\_Items.Order\_No and Item.Item\_Id=Ordered\_Items.Item\_Id GROUP BY Customer\_First\_Name;

5 : Who are the customers that have purchased all the items purchased by ‘Asha’

SELECT Customer\_First\_Name FROM customer WHERE Customer\_Email\_Id IN

(

SELECT Customer\_Email\_Id FROM foodorder WHERE order\_no in

(

SELECT order\_no FROM Ordered\_Items Ord\_Itm WHERE NOT EXISTS

(

(SELECT Item\_Id FROM Customer, foodorder, Ordered\_Items WHERE foodorder.Customer\_Email\_Id = Customer.Customer\_Email\_Id and foodorder.Order\_No = Ord\_Itm.Order\_No and customer. Customer\_First\_Name = 'Asha')

EXCEPT

(SELECT Item\_Id FROM Customer, foodorder WHERE foodorder.Customer\_Email\_Id = Customer.Customer\_Email\_Id and foodorder.Order\_No = Ord\_Itm.Order\_No)

)

)

);

6 : Name the agent who has had most number of delivery orders… is it the same as the agent who delivered items of the highest cost(total)... is it the same as the agent who had the highest number of items to be delivered

SELECT Agent\_First\_Name, no\_del no\_of\_deliveries, tot\_cost total\_cost\_of\_delivery, no\_items number\_of\_items\_delivered

FROM Agents,

(

SELECT AD, no\_del, tot\_cost, no\_items

FROM

(SELECT Agent\_vehicle\_no AD, COUNT(order\_no) no\_del

FROM delivery

GROUP BY Agent\_vehicle\_no) AS D,

(SELECT Agent\_vehicle\_no AC, SUM(item\_price) tot\_cost

FROM ordered\_items,delivery,item

WHERE ordered\_items.order\_no=delivery.order\_no and item.item\_id=ordered\_items.item\_id

GROUP BY Agent\_vehicle\_no) AS C,

(SELECT Agent\_vehicle\_no AI, COUNT(item\_id) no\_items

FROM ordered\_items,delivery

WHERE ordered\_items.order\_no=delivery.order\_no GROUP by Agent\_vehicle\_no) AS I

WHERE

D.AD=I.AI and D.AD=C.AC and I.AI=C.AC

)

AS req\_info

WHERE Agents.Agent\_vehicle\_no = req\_info.AD;

7 : Which is the most popular dish among the customers

SELECT Item\_Name Most\_Popular\_Items

FROM Item

WHERE item\_id IN

(

SELECT Item\_id

FROM

(

SELECT Item\_id, COUNT(\*) cnt

FROM ordered\_items

GROUP BY item\_id

)

AS itm\_cnt

WHERE cnt IN

(

SELECT MAX(cnt)

FROM

(

SELECT Item\_id, COUNT(\*) cnt

FROM ordered\_items

GROUP BY item\_id

)

AS itm\_cnt

)

);

8 : Retrieve the dish most frequently bought by each customer

No trend observed….

SELECT Customer\_Email\_Id, Item\_id, COUNT(Item\_id)

FROM foodorder,Ordered\_Items

WHERE Ordered\_Items.order\_no=foodorder.order\_no

GROUP BY Customer\_Email\_Id, Item\_id;

9 : Which restaurant is the most popular according to number of purchases…. What is its rating

SELECT Restaurant\_Name, Restaurant\_Rating

FROM Restaurant

WHERE Restaurant\_FSSAI\_No IN

(

SELECT Restaurant\_FSSAI\_No

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS r\_cnt

WHERE r\_cnt.cnt IN

(

SELECT MAX(cnt)

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS rc

)

);

10 : Which area has the popular restaurants

SELECT Restaurant\_Location Areas\_most\_pop\_rest

FROM

(

SELECT Restaurant\_Location, COUNT(Restaurant\_Location) cnt

FROM Restaurant

WHERE Restaurant\_FSSAI\_No IN

(

SELECT Restaurant\_FSSAI\_No

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS r\_cnt

WHERE r\_cnt.cnt IN

(

SELECT MAX(cnt)

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS rc

)

)

GROUP BY Restaurant\_Location

) AS r\_loc

WHERE r\_loc.cnt IN

(

SELECT MAX(cnt)

FROM

(

SELECT Restaurant\_Location, COUNT(Restaurant\_Location) cnt

FROM Restaurant

WHERE Restaurant\_FSSAI\_No IN

(

SELECT Restaurant\_FSSAI\_No

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS r\_cnt

WHERE r\_cnt.cnt IN

(

SELECT MAX(cnt)

FROM

(

SELECT Restaurant\_FSSAI\_No, COUNT(\*) cnt

FROM foodorder

GROUP BY Restaurant\_FSSAI\_No

)

AS rc

)

)

GROUP BY Restaurant\_Location

)

AS r\_loc

);

11 : Which area is the source of most number of customers

SELECT Area\_name Areas\_most\_cust

FROM

(

SELECT Area\_name, COUNT(Area\_name) cnt

FROM

Customer\_Address

RIGHT JOIN

(Select Customer\_Email\_Id, count(Customer\_Email\_Id) from foodorder group by Customer\_Email\_Id) AS cust\_cnt

ON Customer\_Address.Customer\_Email\_Id = cust\_cnt.Customer\_Email\_Id

group by area\_name) as c\_loc

Where c\_loc.cnt in

(Select max(cnt) from (Select Area\_name, count(Area\_name) cnt from Customer\_Address RIGHT JOIN (Select Customer\_Email\_Id, count(Customer\_Email\_Id) from foodorder group by Customer\_Email\_Id) AS cust\_cnt ON Customer\_Address.Customer\_Email\_Id = cust\_cnt.Customer\_Email\_Id group by area\_name) as c\_loc);

14 : Draw a mapping between the number of restaurants, customers and agents locality-wise

Select area, cnt\_r no\_restaurants, cnt\_c no\_customers, cnt\_a no\_agents from (Select agent\_area area, cnt\_a, cnt\_r from (select agent\_area, count(agent\_area) cnt\_a from Agents\_areas group by agent\_area) AS ag LEFT JOIN (select Restaurant\_Location, count(Restaurant\_Location) cnt\_r from Restaurant group by Restaurant\_Location) AS rs ON ag.agent\_area=rs.Restaurant\_Location) AS ar LEFT JOIN (select Area\_Name, count(Area\_Name) cnt\_c from Customer\_Address group by Area\_Name) AS cs ON ar.area=cs.Area\_Name;