Assignment-3

(MA.A.Harinesh)

1. Top 3 customers based on the amount spent.

Ans: select c\_id,Fname,Lname,c\_city,tot\_amt,rnk

from (

select c.customer\_id as c\_id,

c.cust\_first\_name as Fname,

c.cust\_last\_name as Lname,

c.cust\_city as c\_city,

sum(o.order\_total) as tot\_amt,

rank() over (order by sum(o.order\_total) desc) as rnk

from demo\_customers c

inner join demo\_orders o on c.customer\_id =o.customer\_id

group by c.customer\_id, c.cust\_first\_name, c.cust\_last\_name,c.cust\_city

) where rnk <= 3;

2. Top 3 customers based on the number of orders.

Ans: select \*

from (

select c.customer\_id as C\_id,

c.cust\_first\_name as Fname,

c.cust\_last\_name as Lname,

c.cust\_city as c\_city,

COUNT(o.order\_id) as Tot\_order,

row\_number() OVER (order by COUNT(o.order\_id) desc) as rnk

from demo\_customers c

inner join demo\_orders o on c.customer\_id=o.customer\_id

group by c.cust\_first\_name,c.cust\_last\_name,c.cust\_city,c.customer\_id

)where rnk<=3

order by Tot\_order desc;

3. Top 3 products based on quantity sold.

Ans: select \*

from (

select p.product\_id as p\_id,

p.product\_name as p\_name,

p.product\_description as p\_descr,

p.category as p\_cat,

sum(oi.unit\_price) as price,

sum(oi.quantity) as q\_sold,

rank() over (order by sum(oi.quantity) desc) as rnk

from demo\_products p

inner join demo\_order\_items oi on p.product\_id = oi.product\_id

group by p.product\_id,p.product\_name,p.product\_description,p.category

)where rnk <= 3

order by q\_sold desc;

4. Write a query to capture the customer's last name, product names (he bought) and total quantity of each of them.

Ans: select c.cust\_last\_name as Lname,

p.product\_name as pname,

sum(oi.quantity) as tot\_quantity

from demo\_customers c

inner join demo\_orders o on c.customer\_id=o.customer\_id

inner join demo\_order\_items oi on o.order\_id=oi.order\_id

inner join demo\_products p on oi.product\_id=p.product\_id

group by c.cust\_last\_name, p.product\_name;

5. Transform the rows to columns for the result you get from Query #4 above.

Ans: select \*

from (

select c.cust\_last\_name as lname,

p.product\_name as pname,

sum(oi.quantity) as tot\_quantity

from demo\_customers c

inner join demo\_orders o on c.customer\_id=o.customer\_id

inner join demo\_order\_items oi on o.order\_id=oi.order\_id

inner join demo\_products p on oi.product\_id=p.product\_id

group by c.cust\_last\_name, p.product\_name

)

PIVOT (sum(tot\_quantity)

for pname in ('Business Shirt','Trousers','Jacket','Skirt','Ladies Shoes',

'Bag','Mens Shoes','Wallet','Belt','Blouse')

);

6. Which year had most orders?

Ans: select \*

from(

select to\_char(o.order\_timestamp,'yyyy') as o\_yr,

count(\*) as tot\_orders,

rank() over(order by count(\*) desc) as rnk

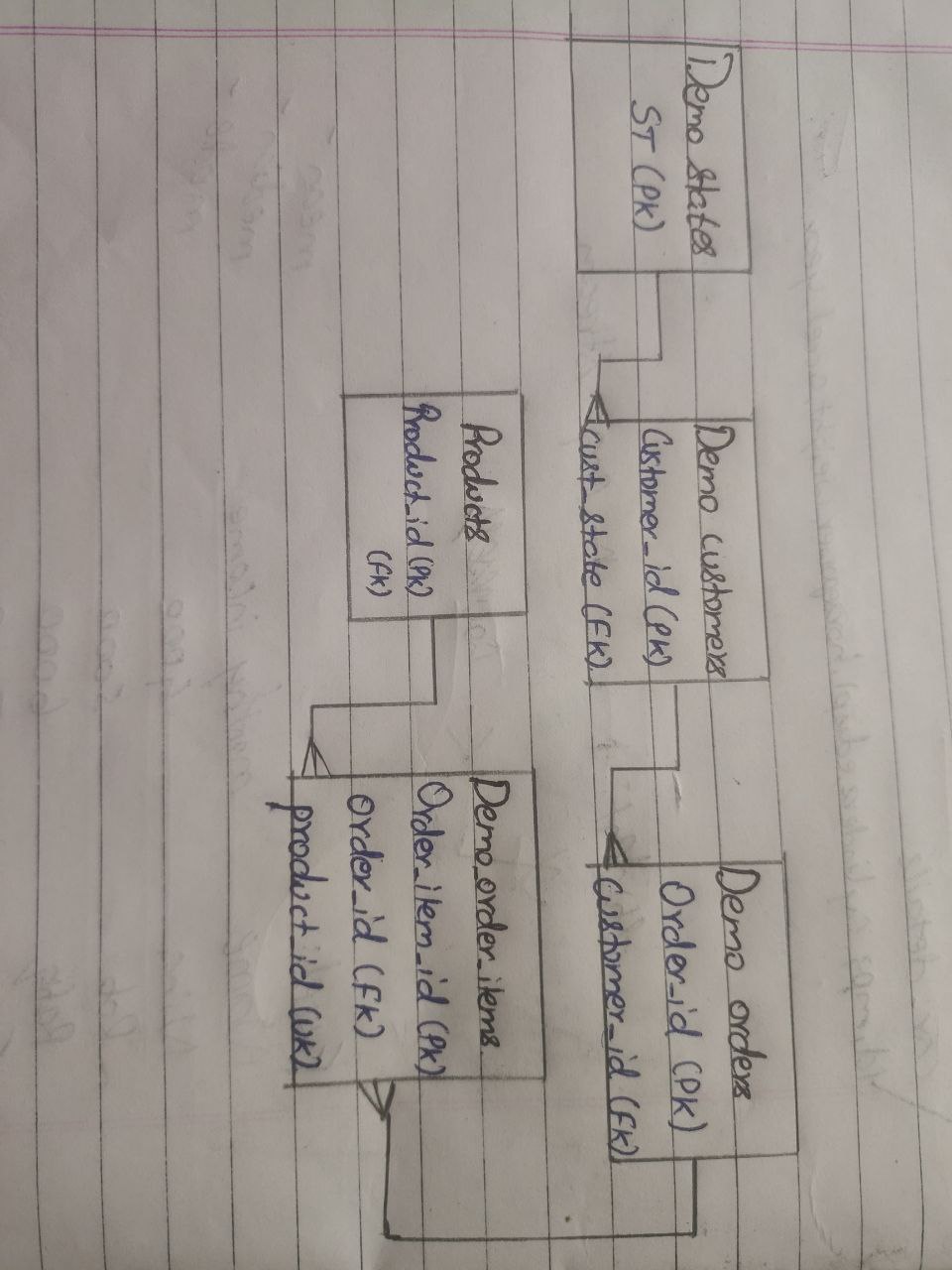
from demo\_orders o

group by to\_char(o.order\_timestamp,'yyyy')

) where rnk=1;

7. Draw an ER (entity-relationship) model for this database depicting tables, PK and FK (i.e., relationships between them) on a plain paper using pen/pencil. Share the screenshot (ensure picture is clearly visible) and share.

Ans:



8. Which product category was most sold?

Ans: select category,tot\_quantity,rnk

from (

select p.category,sum(oi.quantity) as tot\_quantity,

rank() over (order by sum(oi.quantity) desc) as rnk

from demo\_products p

inner join demo\_order\_items oi on p.product\_id=oi.product\_id

group by p.category

) ranked\_categories

where rnk=1;

9. Which product category took the second position in terms of quantity sold?

Ans: select category,tot\_quantity,rnk

from (

select p.category,sum(oi.quantity) as tot\_quantity,

rank() over (order by sum(oi.quantity) desc) as rnk

from demo\_products p

inner join demo\_order\_items oi on p.product\_id=oi.product\_id

group by p.category

) ranked\_categories

where rnk=2;

10. Write a query to help rollup total quantity on customer and product (name).

Ans: select c.customer\_id,

c.cust\_first\_name as fname,

c.cust\_last\_name as lname,

p.product\_name,

sum(oi.quantity) as tot\_quantity

from demo\_customers c

inner join demo\_orders o on c.customer\_id=o.customer\_id

inner join demo\_order\_items oi on o.order\_id=oi.order\_id

inner join demo\_products p on oi.product\_id=p.product\_id

group by rollup(c.customer\_id,c.cust\_first\_name,c.cust\_last\_name,p.product\_name)

order by c.customer\_id,p.product\_name;