Assignment 1

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**1)Query1**

with table1 as (select cust,min(quant) as minq,max(quant)as maxq,avg(quant) as avgq

from sales

group by cust),

table2 as (select table1.cust,table1.minq,sales.prod,

sales.month as mon,sales.day as days,sales.year as years,

sales.state

from table1,sales

where table1.cust=sales.cust and table1.minq=sales.quant),

table3 as (select table1.cust,table1.maxq,sales.prod,

sales.month as mon,sales.day as days,sales.year as years,

sales.state

from table1,sales

where table1.cust=sales.cust and table1.maxq=sales.quant)

select table1.cust as CUSTOMER, table1.minq as MIN\_Q,table2.prod as MIN\_PROD,

table2.mon,table2.days,table2.years,

table2.state as ST,

table1.maxq as MAX\_Q,

table3.prod as MAX\_PROD,

table3.mon as month,table3.days as day,table3.years as year,

table3.state as ST,

table1.avgq as AVG\_Q

from table1,table2,table3

where table1.cust=table2.cust and table1.cust=table3.cust

**2)Query2**

with table0 as

(select month,day, sum(quant) as sum\_q

from sales

group by month,day

order by month,day)

,

table1 as

(select month,max(sum\_q) as max\_q,min(sum\_q) as min\_q

from table0

group by month)

,

table2 as (Select table1.month,table0.day,table1.max\_q

from table1,table0

where table0.sum\_q = table1.max\_q and table0.month=table1.month

order by table1.month),

table3 as (Select table1.month,table0.day,table1.min\_q

from table1,table0

where table0.sum\_q = table1.min\_q and table0.month=table1.month

order by table1.month),

table4 as (select table2.month,table2.day as max\_profit\_day,table2.max\_q as max\_profit\_total\_q,table3.day as least\_profit\_day,table3.min\_q as least\_profit\_total\_q

from table2,table3

where table2.month=table3.month

order by table2.month)

select \* from table4

**3)Query3:**

with table0 as

(select month,prod,sum(quant) as total

from sales

group by month,prod

order by month,prod)

,

table1 as

(select prod,max(total) as max\_q,min(total) as min\_q

from table0

group by prod)

select table1.prod as PRODUCT,a.month as MOST\_FAV\_MO,b.month as LEAST\_FAV\_MO

from table0 as a,table0 as b,table1

where table1.max\_q=a.total and table1.min\_q=b.total

order by table1.prod

**4)Query4**

with table1 as

(select distinct cust,prod,Round(avg(quant),3) as q1

from sales

where month in (1,2,3)

group by cust,prod),

table2 as

(select distinct cust,prod,ROUND(avg(quant),3) as q2

from sales

where month in (4,5,6)

group by cust,prod),

table3 as

(select distinct cust,prod,Round(avg(quant),3) as q3

from sales

where month in (7,8,9)

group by cust,prod),

table4 as

(select distinct cust,prod,Round(avg(quant),3) as q4

from sales

where month in (10,11,12)

group by cust,prod),

table5 as

(select distinct cust,prod,Round(avg(quant),3) as Average,sum(quant) as Total,count(quant)

from sales

group by cust,prod)

select table5.cust as CUSTOMER,table5.prod as PRODUCT,

table1.q1 as Q1\_AVG,table2.q2 as Q2\_AVG,table3.q3 as Q3\_AVG,table4.q4 as Q4\_AVG,

table5.Average,table5.Total,table5.count

from table5

left join table1

using (cust,prod)

left join table2

using (cust,prod)

left join table3

using (cust,prod)

left join table4

using (cust,prod)

order by table5.cust,table5.prod

**Query 5)**

with t0 as (Select distinct cust,prod

from sales),

table0 as (select cust,prod,state,max(quant)as maxq

from sales

group by cust,prod,state

order by cust,prod)

,

table1 as ( select distinct table0.cust,table0.prod,table0.state,table0.maxq as maxnj,sales.month,sales.day,sales.year

from table0,sales

where table0.state='NJ'and table0.cust=sales.cust and

table0.prod=sales.prod and sales.quant=table0.maxq

order by table0.cust,table0.prod),

table2 as ( select distinct table0.cust,table0.prod,table0.state,table0.maxq as maxny,sales.month,sales.day,sales.year

from table0,sales

where table0.state='NY'and table0.cust=sales.cust and

table0.prod=sales.prod and sales.quant=table0.maxq

order by table0.cust,table0.prod),

table3 as ( select distinct table0.cust,table0.prod,table0.state,table0.maxq as maxct,sales.month,sales.day,sales.year

from table0,sales

where table0.state='CT'and table0.cust=sales.cust and

table0.prod=sales.prod and sales.quant=table0.maxq

order by table0.cust,table0.prod),

table4 as (select t0.cust as customer,t0.prod as product,table1.maxnj as nj\_max,table1.month,table1.day,table1.year,

table2.maxny as Ny\_max,table2.month,table2.day,table2.year,

table3.maxct as CT\_max,table3.month,table3.day,table3.year

from t0

left join table1

using(cust,prod)

left join table2

using(cust,prod)

left join table3

using(cust,prod)

where table2.maxny>table1.maxnj or table2.maxny>table3.maxct

order by t0.cust,t0.prod)

select \* from table4