1

select pid,name from products

where discnt\_rate > 0.1 and (qoh-10)>=qoh\_threshold

2

select name ,telephone#

from customers

where telephone# like '666%'

and to\_char(last\_visit\_date,'YYYY')=2017

and to\_char(last\_visit\_date,'MM')=10

3

select c.name,c.telephone#

from customers c join purchases p on c.cid=p.cid

where to\_char(ptime,'MM')=10

and to\_char(ptime,'YYYY')=2017

and total\_price >= 100

4

select p.pid,p.name

from products p join purchases s

on p.pid=s.pid

where original\_price\*(1-discnt\_rate)<10

and to\_char(ptime,'YYYY')=2017

and ( to\_char(ptime,'MM')=9

or to\_char(ptime,'MM')= 8)

5

select p.pur#,p.eid,p.pid,p.cid,p.qty,p.ptime,p.total\_price

from purchases p

join customers c on p.cid=c.cid

join employees e on p.eid=e.eid

join products s on p.pid=s.pid

where c.name like 'K%'

and e.telephone# like '888%'

and s.original\_price < 15

6

elect p.pur#,s.name as

product\_name,to\_char(p.ptime,'Month/DD/YYYY day HH:MI:SS

')as ptime,p.total\_price,s.original\_price\*p.qty-p.total\_price

as

saving

from purchases p

join products s on p.pid = s.pid

7

select distinct e.eid

from employees e

join customers c on

substr(e.telephone#,1,3)=substr(c.telephone#,1,3)

order by e.eid asc

8

select c.name

from customers c

join purchases p on c.cid=p.cid

where c.visits\_made>=2

and p.total\_price/p.qty<=100

and to\_char(c.last\_visit\_date,'DD')=to\_char(p.ptime,'DD')

and to\_char(c.last\_visit\_date,'MM')=to\_char(p.ptime,'MM')

and to\_char(c.last\_visit\_date,'YYYY')=to\_char(p.ptime,'YYYY')

9.1

select name

from employees

where eid not in (select p.eid

from purchases p

join products s on p.pid=s.pid

where s.original\_price > 200)

9.2

select name,eid from employees a

where NOT EXISTS(

select eid

from purchases p

join products s on p.pid=s.pid

where s.original\_price>=200

and p.eid=a.eid

)

10

select distinct p.cid,c.name

from purchases p

join customers c on p.cid=c.cid

where p.pid in (select pid

from purchases

where cid = 'c005')

11

select cid from

(

select c.cid

from purchases p

join customers c on p.cid=c.cid

join products s on p.pid=s.pid

where to\_char(c.last\_visit\_date,'MM')=10

and to\_char(c.last\_visit\_date,'YYYY')=2017

and s.pid in (

select pid

from products

where original\_price>200)

)

group by cid

having count(\*)>=(

select count(original\_price)

from products where

original\_price>200

)

12

select p.eid,e.name

from purchases p

join employees e on p.eid=e.eid

where cid in

(

select cid

from purchases

where pid in(

select pid

from products

where name = 'camera'

or name = 'chair'

)

)

group by p.eid,e.name

having count(p.eid)>=2

13

select c.name

from purchases p

join customers c on p.cid=c.cid

where total\_price = (select MAX(total\_price) from purchases)

and p.qty>=1

14

select pid,name,original\_price-original\_price\*(1-discnt\_rate) as discount\_amount

from products

where original\_price-original\_price\*(1-discnt\_rate) =(

select max(discount\_amount)

from (

select pid,name,original\_price-original\_price\*(1-discnt\_rate) as discount\_amount

from products

)

)

15

select to\_char(ptime,'YYYY/MM')as Month,sum(total\_price) as Total\_Sale

from purchases

group by to\_char(ptime,'YYYY/MM')

16

select s.name,p.pid,sum(p.qty) as total\_quantity\_sold

from purchases p

join products s on p.pid=s.pid

group by p.pid,s.name

having sum(qty)=(

select max(total\_quantity\_sold)

from (

select p.pid,sum(p.qty) as total\_quantity\_sold

from purchases p

join products s on p.pid=s.pid

group by p.pid

)

)

17

select p.pur#,s.original\_price\*p.qty-total\_price as saving

from purchases p

join products s on p.pid=s.pid

where s.original\_price\*p.qty-total\_price =

(

select max(saving)

from (select p.pur#,s.original\_price\*p.qty-total\_price as saving

from purchases p

join products s on p.pid=s.pid

)

)

18 using aggregate:

select pur#

from purchases

where total\_price>=(

select max(total\_price)

from purchases

where cid = 'c006'

)

18 without aggregate:

select pur#

from purchases

where total\_price>=(

select total\_price

from purchases

where cid = 'c006'

and ROWNUM <=1

)

19

select name,cid,total\_amount\_spent

from

(

select name,cid,total\_amount\_spent

from(

select c.name,p.cid,sum(p.total\_price) as total\_amount\_spent

from purchases p

join customers c on p.cid=c.cid

group by p.cid,c.name

)

order by total\_amount\_spent desc

)

where ROWNUM<=3

20

select r.pid,r.name,nvl(a.number\_of\_customers,0) as number\_of\_customers

from

(

select p.pid,s.name,count(p.pid) as number\_of\_customers

from purchases p

right outer join products s on p.pid=s.pid

where to\_char(ptime,'MM')=10

and to\_char(ptime,'YYYY')=2017

group by p.pid,s.name

) a

right outer join products r on a.pid=r.pid