SQL Scripts of SELECT queries

1) Get item-wise profit of a supermarket calculated based on the sellout period of each item from date 01-10-2019 :

```
with r1 as (select itemcode,(qty*avg_cp) as avg_spent
                    from
                    ( select itemcode,avg(cost_price) as avg_cp,sum(qty) as qty
                        from items natural join supply_record
                            where date>='2019-10-01' and to_date('2019-10-01','YYYY-MM-DD')+items.sellout_period>=date group by itemcode)as r),
        r2 as (select itemcode,sum(qty*purchaseprice) as recv from bill natural join bill_details natural join items where bill_date>='2019-10-01' and to_date('2019-10-01','YYYY-MM-DD')+items.sellout_period>=bill_date group by itemcode)
            select itemcode,recv-avg_spent as profit from r1 natural join r2;
```

2) Get total profit generated by supermarket calculated on all transactions made between 10/10/2019 and 10/11/2019 :

```
select sum(recv-spent) as profit from (( select p.itemcode,sum(p.qty)*avg(p.cost_price) as spent from (select * from supply_record as s where s.date>='2019-10-10' and s.date<='2019-11-10') as p group by p.itemcode)as e
natural join
(select v.itemcode,sum(v.qty*v.purchaseprice) as recv from (select * from bill_details as w natural join bill as b where b.bill_date>='2019-10-10' and b.bill_date<='2019-11-10') as v group by v.itemcode)as t)as q
```

3) Get the most sold item in the store in the month of october 2019 :

```
with r2 as (with r1 as (select itemcode,sum(qty) as numberofitemsold from bill_details as b natural join bill as bb where bb.bill_date>='2019-10-01' and bb.bill_date<='2019-10-31' group by itemcode)
select * from r1 natural join (select max(numberofitemsold) as numberofitemsold from r1) as e)
(select itemcode,productname,numberofitemsold from r2 natural join packed_food_description)
union (select itemcode,productname,numberofitemsold from r2 natural join clothes_description)
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union (select itemcode,productname,numberofitemsold from r2 natural join personal_care_description)

4) The details of the employee who resolved the most compliants in the month of october 2019

with r1 as (select serviced_by,count(serviced_by) as mostresolved from complain natural join bill where bill_date>='2019-10-01' and bill_date<='2019-10-31' and status='resolved' group by serviced_by)

select serviced_by,name,mostresolved from (r1 join employee on r1.serviced_by=employee.ssn) natural join (select max(mostresolved) as mostresolved from r1) as e;

5) Get the brandname which has the most items sold in the month of october 2019 :

with r1 as (select brandname , sum(numberofitemsold) as brandcount from (select * from (select * from product natural join ((select itemcode,productname from packed_food_description)

union (select itemcode,productname from clothes_description)

union (select itemcode,productname from personal_care_description)) as p) as v natural join

(select itemcode,sum(qty) as numberofitemsold from bill_details as b natural join bill as bb where bb.bill_date>='2019-10-01' and bb.bill_date<='2019-10-31' group by itemcode) as f) as d group by brandname)

select * from r1 natural join (select max(brandcount) as brandcount from r1) as e

6) Get the food item which has received the most complaints/feedback so far :

select * from packed_food_description natural join (with r1 as (select itemcode,count(itemcode) as no_of_complains from packed_food_description natural join bill_details natural join complain group by itemcode)

select * from r1 natural join (select max(no_of_complains) as no_of_complains from r1) as q) as c

7) Get the discount code which was most availed during the month of october 2019 :

with r1 as (select discount_applied,count(discount_applied) as mostusedcode from bill_details natural join bill where bill_date>='2019-10-01' and bill_date<='2019-10-30' and not discount_applied is null group by discount_applied)

select discount_applied,mostusedcode from (select max(mostusedcode)as mostusedcode from r1) as e natural join r1 ;

8) Get the supplier who has supplied the most number of dairy products :

with r1 as (select licenseno,sum(qty) as totalqty from items natural join storage_area natural join supply_record where section_name='dairy' and date>='2019-05-01' and date <='2019-10-01' group by licenseno)

select * from r1 natural join (select max(totalqty) as totalqty from r1) as e natural join supplier

9) Get the details of the premium member who has purchased the most number of products by value in the month of october 2019 :

select * from members natural join (with r1 as (select id,sum(qty) totalqty from members join (select * from bill natural join bill_details) as w on w.customer_id=members.id where bill_date>='2019-10-01' and bill_date<='2019-10-30' group by id)

select id,totalqty from r1 natural join (select max(totalqty) as totalqty from r1) as w) as q

10) Get the manager details of the department with the highest average attendance percentage in the month of october 2019 :

with r1 as(select mgrssn,avg(percentage) as totalpresent from employee as e natural join department as d join (select ssn,((totalpres*100.00)/totalatt) as percentage from (select ssn,count(is_present) as totalpres from attendance natural join employee where is_present=true and date>='2019-10-01' and date<='2019-10-31' group by ssn) as r natural join (select ssn,count(is_present) as totalatt from attendance natural join employee where date>='2019-10-01' and date<='2019-10-31' group by ssn) as s) as w on w.ssn=e.ssn group by d.mgrssn)

select mgrssn,totalpresent,name from r1 natural join (select max(totalpresent) as totalpresent from r1) as v join employee on ssn=mgrssn

11) rGet the age group for which the supermarket has sold the most clothes :

```
with r1 as(select age_group,count(age_group) as popular from (select itemcode,age_group from bill_details natural join (select itemcode,age_group from items natural join clothes_description) as i)as fi group by age_group)

select age_group,popular from (select max(popular) as popular from r1)as f natural join r1;
```

12) Get a list of all the items and the suppliers who sold those items at the cheapest rate in the month of october 2019 :

```
with r1 as (select licenseno, itemcode, cost from supply_record natural join (select itemcode,min(cost_price) as cost from supply_record where date>='2019-10-01' and date<='2019-10-31' group by (itemcode)) as e)

select product.productname,supplier.*,product.brandname,cost from supplier natural join ((select productname,licenseno,cost from r1 natural join personal_care_description) union (select productname,licenseno,cost productname from r1 natural join clothes_description) union (select productname,licenseno,cost productname from r1 natural join packed_food_description)) as r2 natural join product;
```