**Queries regarding Supermarket Database System**

1. Find the most profitable product sold.

select profit,product\_id,brand from (select distinct product\_id, brand, (selling\_price-cost\_price) as profit from buys natural join product) as r3 natural join (select max(profite) as profit from

(select distinct product\_id,brand,(selling\_price-cost\_price) as profite from buys natural join product) as r2) as r4

where r4.profit=r3.profit;

1. Count the number of platinum card holder who shopped for more than ₹ 2000.

select count(distinct cust\_id) from invoicedetails natural join customer natural join customertype where invoicedetails.amount > 2000 and customertype.type\_name='Platinum';

1. List details of product which are bought through thepayment mode, PayTm and had the product offer KHUSIWALIDIAWLI.

select \* from (select DISTINCT product\_id from (select inv\_id from InvoiceDetails as i join PaymentMode as p on (i.payment\_mode\_id=p.payment\_mode\_id) where mode\_of\_payment='Paytm')as d join Buys as b on(d.inv\_id=b.invoice\_id)) as s join Product as pro

on(s.product\_id=pro.product\_id) where offer\_id='KHUSIWALIDIWALI';

1. List product id, product type and category id of product which are sold whose category id begins with MF and stored in warehouse ending with 002.

select distinct product\_id , product\_type,category\_id from buys natural join product natural join category where

category.warehouse\_no like '%002' and

product.category\_id like 'MF%';

1. Find the most valuable customer of the year.

select sum,cust\_id,year,customer\_name from

(select sum,cust\_id,year from (select sum(amount) as sum, cust\_id,extract(year from inv\_date) as year from invoicedetails group by cust\_id,year) as r1 natural join (select max(sume) as sum ,year from (select sum(amount) as sume, cust\_id, extract(year from inv\_date) as year from invoicedetails group by cust\_id,year) as r2 group by year ) as r3 where r1.sum=r3.sum and r3.year=r1.year order by year) as r5 join customer on (r5.cust\_id=customer.customer\_id);

1. If a customer went to shops on 31 dec, 2016 , list the offers applicable for him on that day.

select offers\_id,offers\_type,offers\_details from OfferDetails where offers\_start\_date < '2016-12-31' and offers\_end\_date > '2016-12-31';

1. List the incharge name, incharge id and gender of all block incharges under whose work no product of his block were returned by any customer.

select employee\_name, employee\_id ,gender from (select block\_incharge\_id from block except select block\_incharge\_id from (select store\_id from (select distinct category\_id from ReturnSlip as rs join Product as p on (rs.product\_id=p.product\_id)) as e join category as c on(e.category\_id=c.category\_id))as f join block as b on (f.store\_id=b.block\_id))as bl join employee as emp

on (bl.block\_incharge\_id=emp.employee\_id);

1. List the product id, product type, warehouse count and block count of products which were returned and whose block count is 30 % more than their warehouse count.

select p.product\_id, p.product\_type, p.warehouse\_count, p.block\_count from returnslip as r join Product as p on (r.product\_id=p.product\_id) where block\_count > 0.3 \* warehouse\_count;

1. List the customer id who shopped for atleast a total of 3 quantities of any product (maybe same product) and paid a amount greater tha ₹ 3000 on 5 march, 2015 and were having the Platinum card.

select distinct cust\_id,type\_name from(select DISTINCT cust\_id , inv\_date ,amount from (select invoice\_id , sum(quantity) from Buys group by invoice\_id having sum(quantity)>3 or sum(quantity)=3)as p natural join InvoiceDetails where amount >3000 and inv\_date='2015- 03-05' ) as j natural join Customer as c natural join

CustomerType where CustomerType.type\_name='Platinum';

1. List product id and quantity of products sold under offer OFF10.

select product\_id, count(product\_id) , sum(quantity) as quan\_max from buys natural join product

where offer\_id='OFF10'

group by product\_id order by sum(quantity) desc ;

1. List the employee name and id who is incharge of grocery department.

select distinct employee\_name,employee\_id from employee inner join block on(employee\_id=block\_incharge\_id)

inner join category on (block\_id=store\_id) where block\_name='Grocery';

1. List the offer id and quantity of product under that offer which were returned.

select max,offer\_id from (select offer\_id ,sum(quantity) as max from returnslip natural join product group by offer\_id) as r2 natural join (select max(sum) as max from (select sum(quantity) as sum, offer\_id from returnslip natural join product group by offer\_id) as r1) as r3 where r3.max=r2.max;

1. Find the customer type which is most attracted by offer KHUSIWALIDIWALI.

select sum, customer\_type\_id from (select max(count) as sum from (select count(customer\_type\_id) as count, customer\_type\_id from product natural join buys inner join invoicedetails on (invoice\_id=inv\_id) inner join customer on (cust\_id=customer\_id) inner join customertype on

(customer\_type\_id=type\_id) where offer\_id = 'KHUSIWALIDIWALI' group by (customer\_type\_id)) as r3) as r4 natural join (select count(customer\_type\_id) as sum, customer\_type\_id from product natural join buys inner join invoicedetails on (invoice\_id=inv\_id) inner join customer on(cust\_id=customer\_id) inner join customertype on (customer\_type\_id=type\_id) where offer\_id = 'KHUSIWALIDIWALI' group by (customer\_type\_id)) as r2 where r2.sum=r4.sum;