Data insertion :

Create Database if not exists `order-directory` ;

use `order-directory`;

CREATE TABLE IF NOT EXISTS supplier(

SUPP\_ID int primary key,

SUPP\_NAME varchar(50) ,

SUPP\_CITY varchar(50),

SUPP\_PHONE varchar(10) );

CREATE TABLE IF NOT EXISTS customer(

CUS\_ID INT primary key,

CUS\_NAME VARCHAR(20) NOT NULL,

CUS\_PHONE VARCHAR(10) NOT NULL,

CUS\_CITY varchar(30) NOT NULL,

CUS\_GENDER CHAR);

CREATE TABLE IF NOT EXISTS category (

CAT\_ID INT primary key,

CAT\_NAME VARCHAR(20) NOT NULL);

CREATE TABLE IF NOT EXISTS product (

PRO\_ID INT primary key,

PRO\_NAME VARCHAR(20) ,

PRO\_DESC VARCHAR(60),

CAT\_ID INT NOT NULL,

FOREIGN KEY (CAT\_ID) REFERENCES category (CAT\_ID));

CREATE TABLE IF NOT EXISTS supplier\_pricing (

PRICING\_ID INT primary key,

PRO\_ID INT NOT NULL,

SUPP\_ID INT NOT NULL,

SUPP\_PRICE INT ,

FOREIGN KEY (PRO\_ID) REFERENCES product(PRO\_ID),

FOREIGN KEY (SUPP\_ID) REFERENCES supplier(SUPP\_ID)

);

CREATE TABLE IF NOT EXISTS `order` (

ORD\_ID INT NOT NULL primary key,

ORD\_AMOUNT INT NOT NULL,

ORD\_DATE DATE,

CUS\_ID INT NOT NULL,

PRICING\_ID INT NOT NULL,

FOREIGN KEY (CUS\_ID) REFERENCES customer(CUS\_ID),

FOREIGN KEY (PRICING\_ID) REFERENCES supplier\_pricing(PRICING\_ID)

);

CREATE TABLE IF NOT EXISTS rating (

RAT\_ID INT NOT NULL primary key,

ORD\_ID INT NOT NULL,

RAT\_RATSTARS INT NOT NULL,

FOREIGN KEY (ORD\_ID) REFERENCES `order`(ORD\_ID)

);

INSERT INTO supplier VALUES(1,"Rajesh Retails","Delhi",'1234567890');

INSERT INTO supplier VALUES(2,"Appario Ltd.","Mumbai",'2589631470');

INSERT INTO supplier VALUES(3,"Knome products","Banglore",'9785462315');

INSERT INTO supplier VALUES(4,"Bansal Retails","Kochi",'8975463285');

INSERT INTO SUPPLIER VALUES(5,"Mittal Ltd.","Lucknow",'7898456532');

INSERT INTO customer VALUES(1,"AAKASH",'9999999999',"DELHI",'M');

INSERT INTO customer VALUES(2,"AMAN",'9785463215',"NOIDA",'M');

INSERT INTO customer VALUES(3,"NEHA",'9999999999',"MUMBAI",'F');

INSERT INTO customer VALUES(4,"MEGHA",'9994562399',"KOLKATA",'F');

INSERT INTO customer VALUES(5,"PULKIT",'7895999999',"LUCKNOW",'M');

INSERT INTO category VALUES( 1,"BOOKS");

INSERT INTO category VALUES(2,"GAMES");

INSERT INTO category VALUES(3,"GROCERIES");

INSERT INTO category VALUES (4,"ELECTRONICS");

INSERT INTO category VALUES(5,"CLOTHES");

INSERT INTO product VALUES(1,"GTA V","Windows 7 and above with i5 processor and 8GB RAM",2);

INSERT INTO product VALUES(2,"TSHIRT","SIZE-L with Black, Blue and White variations",5);

INSERT INTO product VALUES(3,"ROG LAPTOP","Windows 10 with 15inch screen, i7 processor, 1TB SSD",4);

INSERT INTO product VALUES(4,"OATS","Highly Nutritious from Nestle",3);

INSERT INTO product VALUES(5,"HARRY POTTER","Best Collection of all time by J.K Rowling",1);

INSERT INTO product VALUES(6,"MILK","1L Toned MIlk",3);

INSERT INTO product VALUES(7,"Boat EarPhones","1.5Meter long Dolby Atmos",4);

INSERT INTO product VALUES(8,"Jeans","Stretchable Denim Jeans with various sizes and color",5);

INSERT INTO product VALUES(9,"Project IGI","compatible with windows 7 and above",2);

INSERT INTO product VALUES(10,"Hoodie","Black GUCCI for 13 yrs and above",5);

INSERT INTO product VALUES(11,"Rich Dad Poor Dad","Written by RObert Kiyosaki",1);

INSERT INTO product VALUES(12,"Train Your Brain","By Shireen Stephen",1);

INSERT INTO supplier\_pricing VALUES(1,1,2,1500);

INSERT INTO supplier\_pricing VALUES(2,3,5,30000);

INSERT INTO supplier\_pricing VALUES(3,5,1,3000);

INSERT INTO supplier\_pricing VALUES(4,2,3,2500);

INSERT INTO supplier\_pricing VALUES(5,4,1,1000);

INSERT INTO supplier\_pricing VALUES(6,12,2,780);

INSERT INTO supplier\_pricing VALUES(7,12,4,789);

INSERT INTO supplier\_pricing VALUES(8,3,1,31000);

INSERT INTO supplier\_pricing VALUES(9,1,5,1450);

INSERT INTO supplier\_pricing VALUES(10,4,2,999);

INSERT INTO supplier\_pricing VALUES(11,7,3,549);

INSERT INTO supplier\_pricing VALUES(12,7,4,529);

INSERT INTO supplier\_pricing VALUES(13,6,2,105);

INSERT INTO supplier\_pricing VALUES(14,6,1,99);

INSERT INTO supplier\_pricing VALUES(15,2,5,2999);

INSERT INTO supplier\_pricing VALUES(16,5,2,2999);

INSERT INTO `order` VALUES (101,1500,"2021-10-06",2,1);

INSERT INTO `order` VALUES(102,1000,"2021-10-12",3,5);

INSERT INTO `order` VALUES(103,30000,"2021-09-16",5,2);

INSERT INTO `order` VALUES(104,1500,"2021-10-05",1,1);

INSERT INTO `order` VALUES(105,3000,"2021-08-16",4,3);

INSERT INTO `order` VALUES(106,1450,"2021-08-18",1,9);

INSERT INTO `order` VALUES(107,789,"2021-09-01",3,7);

INSERT INTO `order` VALUES(108,780,"2021-09-07",5,6);

INSERT INTO `order` VALUES(109,3000,"2021-09-10",5,3);

INSERT INTO `order` VALUES(110,2500,"2021-09-10",2,4);

INSERT INTO `order` VALUES(111,1000,"2021-09-15",4,5);

INSERT INTO `order` VALUES(112,789,"2021-09-16",4,7);

INSERT INTO `order` VALUES(113,31000,"2021-09-16",1,8);

INSERT INTO `order` VALUES(114,1000,"2021-09-16",3,5);

INSERT INTO `order` VALUES(115,3000,"2021-09-16",5,3);

INSERT INTO `order` VALUES(116,99,"2021-09-17",2,14);

Solutions :

use `order-directory`;

/\*

3) Display the total number of customers based on gender who have

placed orders of worth at least Rs.3000.

\*/

select count(t2.cus\_gender) as NoOfCustomers, t2.cus\_gender from

(select t1.cus\_id, t1.cus\_gender, t1.ord\_amount, t1.cus\_name from

(select `order`.ord\_amount, `order`.cus\_id,customer.cus\_gender, customer.cus\_name

from `order`

inner join

customer

on `order`.cus\_id=customer.cus\_id

having `order`.ord\_amount>=3000)

as t1

group by t1.cus\_id) as t2

group by t2.cus\_gender;

/\*

4) Display all the orders along with product name ordered by a customer having Customer\_Id=2

\*/

select `order`.\*, A1.pro\_name from `order`

inner join

(select product.pro\_name, supplier\_pricing.pricing\_id from

product

inner join

supplier\_pricing

on

supplier\_pricing.pro\_id = product.pro\_id ) as A1

on

`order`.pricing\_id = A1.pricing\_id where `order`.cus\_id=2;

select product.pro\_name, `order`.\* from `order`, supplier\_pricing, product

where `order`.cus\_id=2 and

`order`.pricing\_id=supplier\_pricing.pricing\_id and supplier\_pricing.pro\_id=product.pro\_id;

/\*

5) Display the Supplier details who can supply more than one product.

\*/

select supplier.\* from supplier where supplier.supp\_id in

(select supp\_id from supplier\_pricing group by supp\_id having

count(supp\_id)>1);

/\*

6) Find the least expensive product from each category

and print the table with category id, name, product name and

price of the product

\*/

select category.cat\_id,category.cat\_name, min(t3.min\_price) as Min\_Price,

t3.pro\_name from

category

inner join

(select product.cat\_id, product.pro\_name, t2.\* from product inner join

(select pro\_id, min(supp\_price) as Min\_Price from supplier\_pricing group by pro\_id)

as t2

where t2.pro\_id = product.pro\_id)as t3

where t3.cat\_id = category.cat\_id group by t3.cat\_id;

/\*

7) Display the Id and Name of the Product ordered after “2021-10-05”.

\*/

select product.pro\_id,product.pro\_name from

`order`

inner join

supplier\_pricing

on supplier\_pricing.pricing\_id=`order`.pricing\_id

inner join

product

on

product.pro\_id=supplier\_pricing.pro\_id where `order`.ord\_date>"2021-10-05";

/\*

8) Display customer name and gender whose names

start or end with character 'A'.

\*/

select cus\_name,cus\_gender from customer

where cus\_name like 'A%' or cus\_name like '%A';

/\*

9) Create a stored procedure to display supplier id,

name, rating and Type\_of\_Service.

For Type\_of\_Service, If rating =5, print “Excellent

Service”,If rating >4 print “Good Service”, If rating >2 print “Average Service”

else print “Poor Service”.

\*/

select report.supp\_id,report.supp\_name,report.Average,

CASE

WHEN report.Average =5 THEN 'Excellent Service'

WHEN report.Average >4 THEN 'Good Service'

WHEN report.Average >2 THEN 'Average Service'

ELSE 'Poor Service'

END AS Type\_of\_Service from

(select final.supp\_id, supplier.supp\_name, final.Average from

(select test2.supp\_id, avg(test2.rat\_ratstars) as Average from

(select supplier\_pricing.supp\_id, test.ORD\_ID, test.RAT\_RATSTARS from

supplier\_pricing inner join

(select `order`.pricing\_id, rating.ORD\_ID, rating.RAT\_RATSTARS from

`order`

inner join

rating

on rating.`ord\_id` = `order`.ord\_id )

as test

on test.pricing\_id = supplier\_pricing.pricing\_id)

as test2 group by supplier\_pricing.supp\_id)

as final

inner join

supplier

where final.supp\_id = supplier.supp\_id) as report;