**Problem Statement →**

An E-commerce website manages its data in the form of various tables.

1. You are required to create tables for **supplier,customer,category,product,productDetails,order,rating** to store the data for the E-commerce with the schema definition given below.

Supplier(SUPP\_ID,SUPP\_NAME,SUPP\_CITY,SUPP\_PHONE)

Customer(CUS\_\_ID,CUS\_NAME,CUS\_PHONE,CUS\_CITY,CUS\_GENDER)

Category(CAT\_ID,CAT\_NAME)

Product(PRO\_ID,PRO\_NAME,PRO\_DESC,CAT\_ID)

ProductDetails(PROD\_ID,PRO\_ID,SUPP\_ID,PRICE)

Order(ORD\_ID,ORD\_AMOUNT,ORD\_DATE,CUS\_ID,PROD\_ID)

Rating(RAT\_ID,CUS\_ID,SUPP\_ID,RAT\_RATSTARS)

1. Insert the following data in the table created above

Supplier Table-

**SUPP\_ID SUPP\_NAME SUPP\_CITY SUPP\_PHONE**

**1 Rajesh Retails Delhi 1234567890**

**2 Appario Ltd. Mumbai 2589631470**

**3 Knome products Banglore 9785462315**

**4 Bansal Retails Kochi 8975463285**

**5 Mittal Ltd. Lucknow 7898456532**

Customer Table-

**CUS\_ID CUS\_NAME CUS\_PHONE CUS\_CITY CUS\_GENDER**

**1 AAKASH 9999999999 DELHI M**

**2 AMAN 9785463215 NOIDA M**

**3 NEHA 9999999999 MUMBAI F**

**4 MEGHA 9994562399 KOLKATA F**

**5 PULKIT 7895999999 LUCKNOW M**

Category Table-

**CAT\_ID CAT\_NAME**

**1 BOOKS**

**2 GAMES**

**3 GROCERIES**

**4 ELECTRONICS**

**5 CLOTHES**

Product Table-

**PRO\_ID PRO\_NAME PRO\_DESC CAT\_ID**

**1 GTA V DFJDJFDJFDJFDJFJF 2**

**2 TSHIRT DFDFJDFJDKFD 5**

**3 ROG LAPTOP DFNTTNTNTERND 4**

**4 OATS REURENTBTOTH 3**

**5 HARRY POTTER NBEMCTHTJTH 1**

Prodcut\_Details Table-

**PROD\_ID PRO\_ID SUPP\_ID PROD\_PRICE**

**1 1 2 1500**

**2 3 5 30000**

**3 5 1 3000**

**4 2 3 2500**

**5 4 1 1000**

Order Table-

**ORD\_ID ORD\_AMOUNT ORD\_DATE CUS\_ID PROD\_ID**

**20 1500 2021-10-12 3 5**

**25 30500 2021-09-16 5 2**

**26 2000 2021-10-05 1 1**

**30 3500 2021-08-16 4 3**

**50 2000 2021-10-06 2 1**

Rating table-

**RAT\_ID CUS\_ID SUPP\_ID RAT\_RATSTARS**

**1 2 2 4**

**2 3 4 3**

**3 5 1 5**

**4 1 3 2**

**5 4 5 4**

**Queries →**

Write queries for the following:

1. Display the number of the customer group by their genders who have placed any order of amount greater than or equal to Rs.3000.
2. Display all the orders along with the product name ordered by a customer having Customer\_Id=2.
3. Display the Supplier details who can supply more than one product.
4. Find the category of the product whose order amount is minimum.
5. Display the Id and Name of the Product ordered after “2021-10-05”.
6. Print the top 3 supplier name and id and their rating on the basis of their rating along with the customer name who has given the rating.
7. Display customer name and gender whose names start or end with character 'A'.
8. Display the total order amount of the male customers.
9. Display all the Customers left outer join with the orders.
10. Create a stored procedure to display the Rating for a Supplier if any along with the Verdict on that rating if any like if rating >4 then “Genuine Supplier” if rating >2 “Average Supplier” else “Supplier should not be considered”.

**Solutions →**

1)

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 NOT NULL,

`CUS\_NAME` VARCHAR(20) NULL DEFAULT NULL,

`CUS\_PHONE` VARCHAR(10),

`CUS\_CITY` varchar(30) ,

`CUS\_GENDER` CHAR,

PRIMARY KEY (`CUS\_ID`));

CREATE TABLE IF NOT EXISTS `category` (

`CAT\_ID` INT NOT NULL,

`CAT\_NAME` VARCHAR(20) NULL DEFAULT NULL,

PRIMARY KEY (`CAT\_ID`)

);

CREATE TABLE IF NOT EXISTS `product` (

`PRO\_ID` INT NOT NULL,

`PRO\_NAME` VARCHAR(20) NULL DEFAULT NULL,

`PRO\_DESC` VARCHAR(60) NULL DEFAULT NULL,

`CAT\_ID` INT NOT NULL,

PRIMARY KEY (`PRO\_ID`),

FOREIGN KEY (`CAT\_ID`) REFERENCES CATEGORY (`CAT\_ID`)

);

CREATE TABLE IF NOT EXISTS `product\_details` (

`PROD\_ID` INT NOT NULL,

`PRO\_ID` INT NOT NULL,

`SUPP\_ID` INT NOT NULL,

`PROD\_PRICE` INT NOT NULL,

PRIMARY KEY (`PROD\_ID`),

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,

`ORD\_AMOUNT` INT NOT NULL,

`ORD\_DATE` DATE,

`CUS\_ID` INT NOT NULL,

`PROD\_ID` INT NOT NULL,

PRIMARY KEY (`ORD\_ID`),

FOREIGN KEY (`CUS\_ID`) REFERENCES CUSTOMER(`CUS\_ID`),

FOREIGN KEY (`PROD\_ID`) REFERENCES PRODUCT\_DETAILS(`PROD\_ID`)

);

CREATE TABLE IF NOT EXISTS `rating` (

`RAT\_ID` INT NOT NULL,

`CUS\_ID` INT NOT NULL,

`SUPP\_ID` INT NOT NULL,

`RAT\_RATSTARS` INT NOT NULL,

PRIMARY KEY (`RAT\_ID`),

FOREIGN KEY (`SUPP\_ID`) REFERENCES SUPPLIER (`SUPP\_ID`),

FOREIGN KEY (`CUS\_ID`) REFERENCES CUSTOMER(`CUS\_ID`)

);

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2)

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","DFJDJFDJFDJFDJFJF",2);

INSERT INTO `PRODUCT` VALUES(2,"TSHIRT","DFDFJDFJDKFD",5);

INSERT INTO `PRODUCT` VALUES(3,"ROG LAPTOP","DFNTTNTNTERND",4);

INSERT INTO `PRODUCT` VALUES(4,"OATS","REURENTBTOTH",3);

INSERT INTO `PRODUCT` VALUES(5,"HARRY POTTER","NBEMCTHTJTH",1);

INSERT INTO PRODUCT\_DETAILS VALUES(1,1,2,1500);

INSERT INTO PRODUCT\_DETAILS VALUES(2,3,5,30000);

INSERT INTO PRODUCT\_DETAILS VALUES(3,5,1,3000);

INSERT INTO PRODUCT\_DETAILS VALUES(4,2,3,2500);

INSERT INTO PRODUCT\_DETAILS VALUES(5,4,1,1000);

INSERT INTO `ORDER` VALUES (50,2000,"2021-10-06",2,1);

INSERT INTO `ORDER` VALUES(20,1500,"2021-10-12",3,5);

INSERT INTO `ORDER` VALUES(25,30500,"2021-09-16",5,2);

INSERT INTO `ORDER` VALUES(26,2000,"2021-10-05",1,1);

INSERT INTO `ORDER` VALUES(30,3500,"2021-08-16",4,3);

INSERT INTO `RATING` VALUES(1,2,2,4);

INSERT INTO `RATING` VALUES(2,3,4,3);

INSERT INTO `RATING` VALUES(3,5,1,5);

INSERT INTO `RATING` VALUES(4,1,3,2);

INSERT INTO `RATING` VALUES(5,4,5,4);

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3)

-- Display the number of the customer group by their genders who have placed any order of amount greater than or equal to Rs.3000.

Ans-

select customer.cus\_gender,count(customer.cus\_gender) as count from customer inner join `order` on customer.cus\_id=`order`.cus\_id where `order`.ord\_amount>=3000 group by customer.cus\_gender;

cus\_gender count

M 1

F 1

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4)

-- Display all the order along with product name ordered by a customer having Customer\_Id=2;

Ans-

select `order`.\*,product.pro\_name from `order` ,product\_details,product where `order`.cus\_id=2 and `order`.prod\_id=product\_details.prod\_id and product\_details.prod\_id=product.pro\_id;

ORD\_ID ORD\_AMOUNT ORD\_DATE CUS\_ID PROD\_ID pro\_name

50 2000 2021-10-06 2 1 GTA V

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5)

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

Ans-

select supplier.\* from supplier,product\_details where supplier.supp\_id in (select product\_details.supp\_id from product\_details group by product\_details.supp\_id having count(product\_details.supp\_id)>1) group by supplier.supp\_id;

SUPP\_ID SUPP\_NAME SUPP\_CITY SUPP\_PHONE

1 Rajesh Retails Delhi 1234567890

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6)

-- Find the category of the product whose order amount is minimum.

Ans-

select category.\* from `order` inner join product\_details on `order`.prod\_id=product\_details.prod\_id inner join product on product.pro\_id=product\_details.pro\_id inner join category on category.cat\_id=product.cat\_id having min(`order`.ord\_amount);

CAT\_ID CAT\_NAME

3 GROCERIES

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7)

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

Ans-

select product.pro\_id,product.pro\_name from `order` inner join product\_details on product\_details.prod\_id=`order`.prod\_id inner join product on product.pro\_id=product\_details.pro\_id where `order`.ord\_date>"2021-10-05";

pro\_id pro\_name

4 OATS

1 GTA V

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8)

-- Print the top 3 supplier name and id and rating on the basis of their rating along with the customer name who has given the rating.

Ans-

select supplier.supp\_id,supplier.supp\_name,customer.cus\_name,rating.rat\_ratstars from rating inner join supplier on rating.supp\_id=supplier.supp\_id inner join customer on rating.cus\_id=customer.cus\_id order by rating.rat\_ratstars desc limit 3;

supp\_id supp\_name cus\_name rat\_ratstars

1 Rajesh Retails PULKIT 5

2 Appario Ltd. AMAN 4

5 Mittal Ltd. MEGHA 4

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9)

-- Display customer name and gender whose names start or end with character 'A'.

Ans-

select customer.cus\_name ,customer.cus\_gender from customer where customer.cus\_name like 'A%' or customer.cus\_name like '%A';

cus\_name cus\_gender

AAKASH M

AMAN M

NEHA F

MEGHA F

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10)

-- Display the total order amount of the male customers.

Ans-

select sum(`order`.ord\_amount) as Amount from `order` inner join customer on `order`.cus\_id=customer.cus\_id where customer.cus\_gender='M';

Amount

34500

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11)

-- Display all the Customers left outer join with the orders.

Ans-

select \* from customer left outer join `order` on customer.cus\_id=`order`.cus\_id;

CUS\_ID CUS\_NAME CUS\_PHONE CUS\_CITY CUS\_GENDER ORD\_ID ORD\_AMOUNT ORD\_DATE CUS\_ID PROD\_ID

1 AAKASH 9999999999 DELHI M 26 2000 2021-10-05 1 1

2 AMAN 9785463215 NOIDA M 50 2000 2021-10-06 2 1

3 NEHA 9999999999 MUMBAI F 20 1500 2021-10-12 3 5

4 MEGHA 9994562399 KOLKATA F 30 3500 2021-08-16 4 3

5 PULKIT 7895999999 LUCKNOW M 25 30500 2021-09-16 5 2

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12)

-- Create a stored procedure to display the Rating for a Supplier if any along with the Verdict on that rating if any like if rating >4 then “Genuine Supplier” if rating >2 “Average Supplier” else “Supplier should not be considered”.

Ans-

DELIMITER &&

CREATE PROCEDURE proc()

BEGIN

select supplier.supp\_id,supplier.supp\_name,rating.rat\_ratstars,

CASE

WHEN rating.rat\_ratstars >4 THEN 'Genuine Supplier'

WHEN rating.rat\_ratstars>2 THEN 'Average Supplier'

ELSE 'Supplier should not be considered'

END AS verdict from rating inner join supplier on supplier.supp\_id=rating.supp\_id;

END &&

DELIMITER ;

call proc();

supp\_id supp\_name rat\_ratstars verdict

2 Appario Ltd. 4 Average Supplier

4 Bansal Retails 3 Average Supplier

1 Rajesh Retails 5 Genuine Supplier

3 Knome products 2 Supplier should not be considered

5 Mittal Ltd. 4 Average Supplier