Data Modeler Familiarization

Use Data Modeler to design a Database schema for a customer-sale scenario as shown below.

customer(cust_id,cust_name) primary key(cust_id).
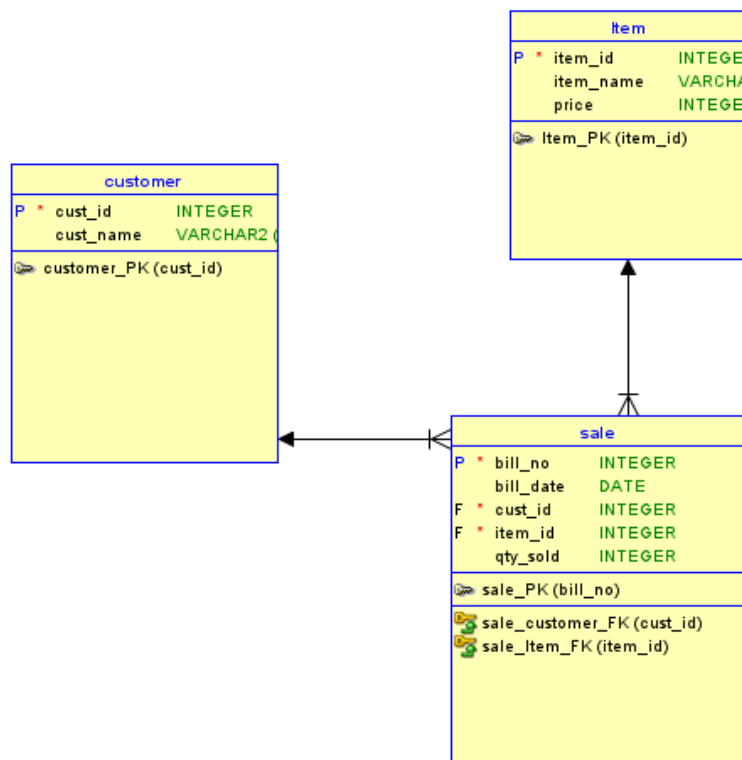
Item(item_id,item_name,price) primary key(item_id

Sale(bill_no,bill_date,cust_id,item_id,qty_sold) primary key(bill_no),foreign key (cust_id),foreign key(item_id).

Find:

a.   Create the tables using data modeler .

        Insert around 10 records in each of the tables.

Ans:

b. List all the bills for the current date with the customer name and item_no.

Ans:

```
SQL> select bill_no, bill_date, cust_name, item_id, qty_sold from sale join customer on customer.cust_id = sale.cust_id WHERE sale.bill_date='11-NOV-2022';

  BILL_NO BILL_DATE CUST_NAME                              ITEM_ID  QTY_SOLD
---------- --------- -------------------------------- ---------- ----------
        4 11-NOV-22 Vivek                                      7         5
        6 11-NOV-22 Krishnendu                                 1         2
```

c. List the total bill detail with the quantity sold, price of the item and final amount.

Ans:

```
SQL> select bill_no, bill_date, cust_id, sale.item_id, qty_sold, item.price, qty_sold*i
tem.price as Total from sale join item on sale.item_id = item.item_id;

  BILL_NO BILL_DATE   CUST_ID   ITEM_ID  QTY_SOLD      PRICE     TOTAL
---------- --------- ---------- ---------- ---------- ---------- ----------
        1 21-DEC-22         40          4          3         60        180
        2 14-APR-22         70          8          1        360        360
        3 20-JUN-22         61         10          3        180        540
        4 11-NOV-22         69          7          5        400       2000
        5 23-JUL-22         69          9          1        100        100
        6 11-NOV-22         15          1          2        400        800
        7 02-OCT-22         15          6          1        300        300
        8 03-OCT-22         61          5          3         50        150
        9 03-OCT-22         15          3          2        250        500
       10 03-OCT-22         69          4          2         60        120

10 rows selected.
```

d. List the details of the customer who have brought a product which has price>200.**Ans:**

```
SQL> select distinct(customer.cust_id), customer.cust_name from customer join sale on c
ustomer.cust_id = sale.cust_id where sale.item_id in (select item_id from item where pr
ice > 200);

  CUST_ID CUST_NAME
---------- --------------------------------------------------
       70 Zemeel
       15 Krishnendu
       69 Vivek
```

e.   Give a count of how many product have been brought by each customer.

Ans:

```
SQL> SELECT cust_id, count(item_id) as Products from sale group by(cust_id);

   CUST_ID   PRODUCTS
--------- ----------
        70          1
        61          2
        69          3
        40          1
        15          3
```
Activate Windows

f.   Give a list of product brought by a customer having cust_id 5.

Ans:

```
SQL> select i.item_id, i.item_name from item i join sale s on s.item_id = i.item_id whe
re s.cust_id=5;

   ITEM_ID ITEM_NAME
---------- ----------------------------
         3 Flour
         4 Turmeric
         1 Rice
```

g.   List the item details which are sold as of today.

Ans:

```
SQL> select i.item_id, i.item_name, i.price from item i join sale s on s.item_id = i.it
em_id where s.bill_date='11-NOV-2022';

   ITEM_ID ITEM_NAME                                PRICE
---------- -------------------------------     ----------
         7 Vegetables                                 400
         1 Rice                                       400
```