

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)

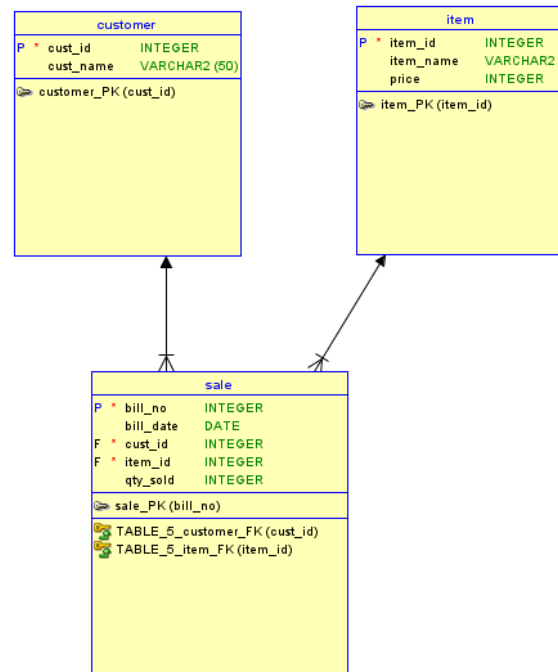
Sale(bill_no,bill_date,cust_id,item_id,qty_sold) primary key(bill_no),foreign key(cust_id),foreign key(item_id).

Find

- a. Create the tables using data modeler.
Insert around 10 records in each of the tables.
- b. List all the bills for the current date with the customer name and item_no.
- c. List the total bill detail with the quantity sold, price of the item and final amount.
- d. List the details of the customer who have brought a product which has price>200.
- e. Give a count of how many product have been brought by each customer.
- f. Give a list of product brought by a customer having cust_id 5.
- g. List the item details which are sold as of today.

Answers:

a)



b)

```
SQL> SELECT bill_no, bill_date, cust_name, item_id, qty_sold FROM sale JOIN customer ON customer.cust_id=sale.cust_id WHERE bill_date='11-NOV-2022';
```

BILL_NO	BILL_DATE	CUST_NAME	ITEM_ID	QTY_SOLD
1	11-NOV-22	zameel	1	3
2	11-NOV-22	vivek	1	3
3	11-NOV-22	zameel	2	2
4	11-NOV-22	vivek	2	4
5	11-NOV-22	zameel	3	10
6	11-NOV-22	zameel	4	3
7	11-NOV-22	zameel	5	6
8	11-NOV-22	vivek	5	5
9	11-NOV-22	zameel	6	10
10	11-NOV-22	zameel	7	2

10 rows selected.

c)

```
SQL> SELECT bill_no, bill_date, cust_id, sale.item_id, qty_sold, qty_sold*item.price as TOTAL FROM sale JOIN item ON sale.item_id=item.item_id;
```

BILL_NO	BILL_DATE	CUST_ID	ITEM_ID	QTY_SOLD	TOTAL
1	11-NOV-22	1	1	3	600
2	11-NOV-22	2	1	3	600
3	11-NOV-22	1	2	2	500
4	11-NOV-22	2	2	4	1000
5	11-NOV-22	1	3	10	800
6	11-NOV-22	1	4	3	1050
7	11-NOV-22	1	5	6	900
8	11-NOV-22	2	5	5	750
9	11-NOV-22	1	6	10	5000
10	11-NOV-22	1	7	2	400

10 rows selected.

d)

```
SQL> SELECT DISTINCT(customer.cust_id), cust_name FROM customer JOIN sale ON sale.cust_id=customer.cust_id WHERE sale.item_id IN (SELECT item_id FROM item WHERE price>200);
```

CUST_ID	CUST_NAME
1	zameel
2	vivek

e)

```
SQL> SELECT cust_id, COUNT(DISTINCT(item_id)) as QTY_PROD FROM sale GROUP BY cust_id;
```

CUST_ID	QTY_PROD
1	7
2	3

f)

```
SQL> SELECT i.item_id, i.item_name, i.price FROM item i JOIN sale s ON s.item_id=i.item_id WHERE s.cust_id=5;
```

ITEM_ID	ITEM_NAME	PRICE
2	ghee	250
3	rice	80
6	meat	500

g)

```
SQL> SELECT DISTINCT(i.item_id), i.item_name, i.price FROM item i JOIN sale s ON i.item_id=s.item_id WHERE s.bill_date='11-NOV-2022' ORDER BY i.item_id;
```

ITEM_ID	ITEM_NAME	PRICE
1	oil	200
2	ghee	250
3	rice	80
4	spices	350
5	vegetables	150
6	meat	500
7	misc	200

7 rows selected.

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