

**PROGRAM TITLE:**Create the following tables in SQL with the proper integrity constraints and solve the queries that follow.

```
Customer(c_id,c_name,c_city,discount).
agent(a_id,a_name,a_city,commission).
product(p_id,p_name,p_city,quantity,price)
orders(ord_no,month,c_id,a_id,p_id,quantity>Total_price).
```

Queries:

a)Find the agents name who place orders for all products ordered by customer COOL.

The agents name must be in a sorted order.

b)Display all pairs of aids for agents who live in the same city.

c)Get the names of the agents with a name beginning with the letter 'N' who does not place order for any product in Asansol.

**PROGRAM CODE:**

Table Creation:

**Customer:**

```
create table customer(c_id varchar2(4) primary key check(c_id like
'c %'),c_name varchar2(20),c_city varchar2(10),discount
varchar2(3));
```

**Agent :**

```
create table agent(a_id varchar2(4) primary key check(a_id like 'a
%'),a_name varchar2(20),a_city varchar2(10),commission
varchar2(3));
```

**Product :**

```
create table product(p_id varchar2(4) primary key check(p_id like
'p%'),p_name varchar2(20),p_city varchar2(10),quantity
number(4),price number(10));
```

**Orders :**

```
create table orders(ord_no varchar2(4) check(ord_no like 'O
%'),month varchar2(10),c_id varchar2(4),a_id varchar2(4),p_id
varchar2(4),qty number(5),total_price number(6),constraint pkord_no
primary key(ord_no),constraint fk_cid1 foreign key(c_id) references
customer(c_id),constraint fk_aid5 foreign key(a_id) references
agent(a_id), constraint fk_pid1 foreign key(p_id) references
product(p_id));
```

Table Insertion(example):

**Customer:**

```
SQL> INSERT INTO CUSTOMER
VALUES('&C_ID','&C_NAME','&C_CITY','&DISCOUNT');
Enter value for c_id: C01
Enter value for c_name: ROHIT SETT
Enter value for c_city: KOLKATA
Enter value for discount: 10
```

```
old 1: INSERT INTO CUSTOMER
VALUES('&C_ID','&C_NAME','&C_CITY','&DISCOUNT')
new 1: INSERT INTO CUSTOMER VALUES('C01','ROHIT
SETT','KOLKATA','10')
```

1 row created.

### Agent :

```
SQL> INSERT INTO AGENT
VALUES('&A_ID','&A_NAME','&A_CITY','&COMMISSION');
Enter value for a_id: A01
Enter value for a_name: KUNAL ROY
Enter value for a_city: BOLPUR
Enter value for commission: 5
old 1: INSERT INTO AGENT
VALUES('&A_ID','&A_NAME','&A_CITY','&COMMISSION')
new 1: INSERT INTO AGENT VALUES('A01','KUNAL ROY','BOLPUR','5')
```

1 row created.

### Product :

```
SQL> INSERT INTO PRODUCT
VALUES('&P_ID','&P_NAME','&P_CITY',&QUANTITY,&PRICE);Enter value
for p_id: P01
Enter value for p_name: UPS
Enter value for p_city: KOLKATA
Enter value for quantity: 10
Enter value for price: 50000
old 1: INSERT INTO PRODUCT
VALUES('&P_ID','&P_NAME','&P_CITY',&QUANTITY,&PRICE)
new 1: INSERT INTO PRODUCT VALUES('P01','UPS','KOLKATA',10,50000)
```

1 row created.

### Orders :

```
insert into orders
values(&ord_no,&month,&c_id,&a_id,&p_id,&quantity,&Total_price);
Enter value for ord_no: 001
Enter value for month: JAN
Enter value for c_id: C04
Enter value for a_id: A01
Enter value for p_id: P01
Enter value for quantity: 2
Enter value for Total_price: 10000
old 1: insert into orders
values(&ord_no,&month,&c_id,&a_id,&p_id,&quantity,&Total_price)
new 1: insert into orders values(1,JAN,C04,A01,P01,2,10000)
```

1 row created.

### Final Tables Created:

#### Customer :

C_ID	C_NAME	C_CITY	DIS
C01	ROHIT SETT	KOLKATA	10
C02	RAKESH SHARMA	DURGAPUR	5
C03	AKHIL DAS	BARDHAMAN	15

C04	COOL	HOWRAH	8
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### Agent :

A_ID	A_NAME	A_CITY	COM
A01	KUNAL ROY	BOLPUR	5
A02	AKASH PAL	ASANSOL	10
A03	NILOY DUTTA	RISHRA	15
A04	PROMOD KHATIAL	ASANSOL	20
A05	SUROJ DHAR	GORIA	18
A06	NITISH TUDU	SURI	12

### Product :

P_ID	P_NAME	P_CITY	QUANTITY	PRICE
P01	UPS	KOLKATA	10	50000
P02	MOUSE	BARASAT	10	2000
P03	RAM	LILUA	10	7000
P04	PCI CARD	ASANSOL	10	12000

### Orders :

ORD_	MONTH	C_ID	A_ID	P_ID	QTY	TOTAL_PRICE
O01	JAN	C04	A01	P01	2	10000
O02	JAN	C04	A01	P02	2	400
O03	FEB	C04	A01	P03	2	1400
O04	MAR	C04	A01	P04	2	2400
O05	APR	C02	A03	P02	4	800
O06	JUN	C01	A04	P01	6	30000

### Queries with output:

#### 1)

```
SQL> SELECT A_NAME FROM AGENT WHERE NOT EXISTS((SELECT P_ID FROM
ORDERS NATURAL JOIN CUSTOMER WHERE
customer.C_NAME='COOL')MINUS(SELECT P_ID FROM ORDERS WHERE
ORDERS.A_ID=AGENT.A_ID)) ORDER BY A_NAME;
```

A_NAME
KUNAL ROY

#### 2)

```
SQL> SELECT A_NAME FROM AGENT NATURAL JOIN ORDERS NATURAL JOIN
PRODUCT WHERE A_NAME LIKE 'N%' AND P_CITY<>'ASANSOL';
```

A_NAME
NILOY DUTTA

#### 3)

```
SQL> SELECT AGENT.A_ID,R.A_ID FROM AGENT, AGENT R WHERE
AGENT.A_ID<>R.A_ID AND AGENT.A_CITY=R.A_CITY;
```

A_ID	A_ID
A04	A02
A02	A04