PROGRAM 6: ORDER PROCESSING DATABASE

Consider the following relations for an Order Processing database application in a company.

CUSTOMER (CUST #: int, cname: String, city: String) ORDER (order #: int, odate: date, cust #: int, ord-Amt: int)

ITEM (item #: int, unit-price: int)

ORDER-ITEM (order #: int, item #: int, qty: int)

WAREHOUSE (warehouse #: int, city: String)

SHIPMENT (order #: int, warehouse #: int, ship-date: date)

- i. Create the above tables by properly specifying the primary keys and the foreign keys and the foreign keys.
- ii. Enter at least five tuples for each relation.
- iii. Produce a listing: CUSTNAME, #oforders, AVG_ORDER_AMT, where the middle column is the total numbers of orders by the customer and the last column is the average order amount for that customer.
- iv. List the order# for orders that were shipped from all warehouses that the company has in a specific city.
- v. Demonstrate how you delete item# 10 from the ITEM table and make that field null in the ORDER_ITEM table.

```
create database orderpro;
use orderpro;

CREATE TABLE CUSTOMERS(
    CUSTNO INT,
    CNAME VARCHAR2(50),
    CITY VARCHAR2(50),
    PRIMARY KEY(CUSTNO)
);
```

```
CREATE TABLE ORDERS(
 ORDERNO INT,
 ODATE DATE,
 CUSTNO INT,
 ORD_AMT INT,
 PRIMARY KEY(ORDERNO),
 FOREIGN KEY(CUSTNO) REFERENCES CUSTOMERS(CUSTNO)
 );
CREATE TABLE ITEM(
 ITEMNO INT,
 UNIT_PRICE INT,
 PRIMARY KEY(ITEMNO)
 );
CREATE TABLE ORDER_ITEM(
 ORDERNO INT,
 ITEMNO INT,
 QTY INT,
 PRIMARY KEY(ORDERNO, ITEMNO),
 FOREIGN KEY(ORDERNO) REFERENCES ORDERS(ORDERNO),
 FOREIGN KEY(ITEMNO) REFERENCES ITEM(ITEMNO)
 );
CREATE TABLE WAREHOUSE(
 WAREHOUSENO INT,
 CITY VARCHAR2(50),
 PRIMARY KEY(WAREHOUSENO)
 );
```

```
CREATE TABLE SHIPMENT(
 ORDERNO INT,
 WAREHOUSENO INT,
 SHIP DATE DATE,
 PRIMARY KEY(ORDERNO, WAREHOUSENO),
 FOREIGN KEY(ORDERNO) REFERENCES ORDERS(ORDERNO),
 FOREIGN KEY(WAREHOUSENO) REFERENCES WAREHOUSE(WAREHOUSENO)
 );
INSERT INTO CUSTOMERS VALUES(CUSTNO, 'CNAME', 'CITY');
INSERT INTO ORDERS VALUES(ORDERNO, 'ODATE', CUSTNO, ORD AMT);
INSERT INTO ITEM VALUES(ITEMNO, UNIT_PRICE);
INSERT INTO ORDER_ITEM VALUES(ORDERNO, ITEMNO, QTY);
INSERT INTO WAREHOUSE VALUES(WAREHOUSENO, 'CITY');
INSERT INTO SHIPMENT VALUES(ORDERNO, WAREHOUSENO, 'SHIP DATE');
SELECT * FROM CUSTOMERS;
SELECT * FROM ORDERS;
SELECT * FROM ITEM;
SELECT * FROM ORDER_ITEM;
SELECT * FROM WAREHOUSE;
SELECT * FROM SHIPMENT;
INSERT INTO customers (custno, `cname`, `city`) VALUES
(111, 'hari', 'bangalore'),(112, 'siddu', 'bangalore'),(113, 'praveen', 'bangalore'),(114, 'yash',
'bangalore'),(115, 'anil', 'bangalore'),(116, 'piyush', 'bangalore');
```



INSERT INTO item (itemno, unit_price) VALUES

(11, 500),(12, 600),(14, 300),(15, 200),(16, 1000);



INSERT INTO orders (orderno, `odate`, custno, ord_amt) VALUES (2001, '2020-06-11', 111, 1200),(2002, '2020-05-12', 112, 1300), (2003, '2020-08-13', 113, 1100),(2004, '2020-11-14', 114, 1400), (2005, '2020-06-15', 115, 1500),(2006, '2020-12-16', 116, 1100);



INSERT INTO order_item (orderno, itemno, qty) VALUES (2001, 11, 2),(2002, 16, 1),(2003, 15, 5),(2004, 14, 3),(2006, 12, 1);



INSERT INTO shipment (orderno, warehouseno, `ship_date`) VALUES (2001, 31, '2020-06-11'),(2002, 32, '2020-05-12'),

(2003, 33, '2020-08-13'),(2004, 34, '2020-11-14'),

(2005, 35, '2020-06-15');

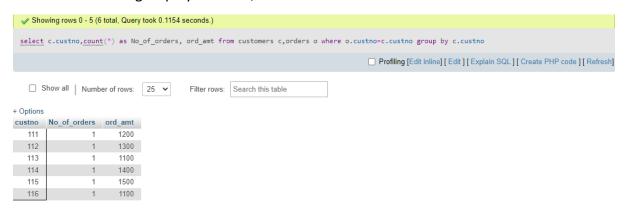


INSERT INTO warehouse (warehouseno, `city`) VALUES

(31, 'ranchi'),(32, 'bangalore'),(33, 'mumbai'),(34, 'delhi'),(35, 'punjab');



select c.custno,count(*) as No_of_orders,Avg_order_amt from customers c,orders o where o.custno=c.custno group by c.custno; #1



select s.orderno from shipment s,warehouse w where s.warehouseno=w.warehouseno and w.city='banglore' group by orderno having count(*)=(select count(*) from warehouse where city='banglore') and not(count(*)=0); #2



delete from item where itemno=15; #3

