**2.a. Modify table Product\_T as specified in exercise 5-57 and test your change by entering data as specified in exercise 5-58.**

ALTER TABLE "PRODUCT\_T" add

QtyOnHand NUMBER(5,0)

CHECK (QtyOnHand >=0);

UPDATE "PRODUCT\_T"

SET    QtyOnHand = 10000

WHERE PRODUCTID =1;

SELECT \*

FROM PRODUCT\_T

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PRODUCTID** | **PRODUCTLINEID** | **PRODUCTDESCRIPTION** | **PRODUCTFINISH** | **PRODUCTSTANDARDPRICE** | **PRODUCTONHAND** | **QTYONHAND** |
| 1 | 1 | Cherry End Table | Cherry | 175 | 0 | 10000 |
| 2 | 1 | Birch Coffee Tables | Birch | 200 | 0 | - |
| 3 | 1 | Oak Computer Desk | Oak | 750 | 0 | - |
| 4 | 1 | Entertainment Center | Cherry | 1650 | 0 | - |
| 5 | 2 | Writer's Desk | Oak | 325 | 0 | - |
| 6 | 1 | 8-Drawer Dresser | Birch | 750 | 0 | - |
| 7 | 3 | 48 Bookcase | Walnut | 150 | 0 | - |
| 8 | 3 | 48 Bookcase | Oak | 175 | 0 | - |
| 9 | 3 | 96 Bookcase | Walnut | 225 | 0 | - |
| 10 | 3 | 96 Bookcase | Oak | 200 | 0 | - |
| 11 | 1 | 4-Drawer Dresser | Oak | 500 | 0 | - |
| 12 | 1 | 8-Drawer Dresser | Oak | 800 | 0 | - |
| 13 | 1 | Nightstand | Cherry | 150 | 0 | - |
| 14 | 2 | Writer's Desk | Birch | 300 | 0 | - |
| 17 | 3 | High Back Leather Chair | Leather | 362 | 0 | - |
| 18 | 4 | 6' Grandfather Clock | Oak | 890 | 0 | - |
| 19 | 4 | 7' Grandfather Clock | Oak | 1100 | 0 | - |
| 20 | 2 | Amoire | Walnut | 1200 | 0 | - |
| 21 | 1 | Pine End Table | Pine | 256 | 0 | - |
| 26 | 5 | Red Kitchen Chair | Steel | 145 | 0 | - |
| 27 | 5 | Black Steel End Table | Steel | 185 | 0 | - |

UPDATE "PRODUCT\_T"

SET    QtyOnHand = -10

WHERE PRODUCTID =1;

**Insert a row in table Customer\_T, with CustomerID =27 and CustomerName as your own name and address as 140 West 62nd Street, New York, NY 10023.**

INSERT INTO CUSTOMER\_T (CUSTOMERID, CUSTOMERNAME, CUSTOMERADDRESS, CUSTOMERCITY, CUSTOMERSTATE, CUSTOMERPOSTALCODE)

VALUES (’27’, ‘Elaina(Yaogui) Huang’, ‘140 West 62nd STreet’, ‘New York’, ‘NY’, ‘10023’)

SELECT \*

FROM CUSTOMER\_T

WHERE CUSTOMERID = 27

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CUSTOMERID** | **CUSTOMERNAME** | **CUSTOMERADDRESS** | **CUSTOMERCITY** | **CUSTOMERSTATE** | **CUSTOMERPOSTALCODE** |
| 27 | Elaina(Yaogui) Huang | 140 West 62nd Street | New York | NY | 10023 |

**Associate the new customer with Northeast territory by entering a row in table DoesBusinessIn\_T**

INSERT INTO DOESBUSINESSIN\_T (CUSTOMERID, TERRITORYID)

VALUES (’27’,’3’)

SELECT \*

FROM DOESBUSINESSIN\_T

WHERE CUSTOMERID = 27

|  |  |
| --- | --- |
| **CUSTOMERID** | **TERRITORYID** |
| 27 | 3 |

**Insert a row in CustomerShipAddress\_T to provide a shipping address for the new customer as 0000 Broadway, New York, NY 10025. Use ShipAddressID as 35.**

INSERT INTO CUSTOMERSHIPADDRESS\_T (SHIPADDRESSID, CUSTOMERID, TERRITORYID, SHIPADDRESS, SHIPCITY, SHIPSTATE, SHIPZIP)

VALUES (’35’, ’27’, ‘3’, ‘0000 Broadway’, ‘New York’, ‘NY’, ‘10025’)

SELECT \*

FROM CUSTOMERSHIPADDRESS\_T

WHERE CUSTOMERID = 27

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SHIPADDRESSID** | **CUSTOMERID** | **TERRITORYID** | **SHIPADDRESS** | **SHIPCITY** | **SHIPSTATE** | **SHIPZIP** | **SHIPDIRECTIONS** |
| 35 | 27 | 3 | 0000 Broadway | New York | NY | 10025 | - |

**Enter an order for the new customer. Use OrderID=93, SalesPersonId = 3, the current date as the order date and null as fulfillment date**

INSERT INTO Order\_T (ORDERID, SALESPERSONID, ORDERDATE, FULFILLMENTDATE)

VALUES ('93', '3', '10/01/2020', NULL)

SELECT \*

FROM ORDER\_T

WHERE ORDERID = 93

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ORDERID** | **CUSTOMERID** | **ORDERDATE** | **FULFILLMENTDATE** | **SALESPERSONID** | **SHIPADRSID** |
| 93 | - | 10/01/2020 | - | 3 | - |

**For the OrderID=93, enter an orderline for two units of 'Oak Computer Desk’.**

INSERT INTO ORDERLINE\_T (ORDERLINEID, ORDERID, PRODUCTID, ORDERQUANTITY)

VALUES (‘100’, ’93’, ‘3’, ‘2’)

SELECT \*

FROM ORDERLINE\_T

WHERE ORDERID = 93

|  |  |  |  |
| --- | --- | --- | --- |
| **ORDERLINEID** | **ORDERID** | **PRODUCTID** | **ORDEREDQUANTITY** |
| 100 | 93 | 3 | 2 |

**4.a. Find all orders for customers in Northeast territory that have not yet been filled (i.e., fulfillment date is null)**

SELECT \*

FROM ORDER\_T O

JOIN DOESBUSINESSIN\_T D

ON O.CUSTOMERID = D.CUSTOMERID

JOIN TERRITORY\_T T

ON D.TERRITORYID = T.TERRITORYID

WHERE T.TERRITORYNAME = 'NorthEast' AND O.FULFILLMENTDATE IS NULL

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ORDERID** | **CUSTOMERID** | **ORDERDATE** | **FULFILLMENTDATE** | **SALESPERSONID** | **SHIPADRSID** | **CUSTOMERID** | **TERRITORYID** | **TERRITORYID** | **TERRITORYNAME** |
| 2 | 3 | 10/04/2017 | - | 3 | - | 3 | 3 | 3 | NorthEast |

**4.b**

**5-63**

SELECT \*

FROM CUSTOMER\_T

WHERE CUSTOMERSTATE = 'CA' OR CUSTOMERSTATE = ‘WA'

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CUSTOMERID** | **CUSTOMERNAME** | **CUSTOMERADDRESS** | **CUSTOMERCITY** | **CUSTOMERSTATE** | **CUSTOMERPOSTALCODE** |
| 5 | Impressions | 5585 Westcott Ct. | Sacramento | CA | 94206-4056 |

**5-67**

SELECT PRODUCTLINEID, COUNT (PRODUCTLINEID) TOTAL\_LINES, ROUND(AVG(PRODUCTSTANDARDPRICE)) MEAN

FROM PRODUCT\_T

GROUP BY PRODUCTLINEID

|  |  |  |
| --- | --- | --- |
| **PRODUCTLINEID** | **TOTAL\_LINES** | **MEAN** |
| 1 | 9 | 581 |
| 2 | 3 | 608 |
| 4 | 2 | 995 |
| 5 | 2 | 165 |
| 3 | 5 | 222 |

**5-68**

SELECT PRODUCTLINEID, COUNT (PRODUCTLINEID) TOTAL\_LINES, ROUND(AVG(PRODUCTSTANDARDPRICE)) MEAN

FROM (SELECT PRODUCTLINEID, PRODUCTSTANDARDPRICE

FROM PRODUCT\_T

WHERE PRODUCTSTANDARDPRICE > 200) SUB1

GROUP BY PRODUCTLINEID

HAVING ROUND(AVG(PRODUCTSTANDARDPRICE)) >= 500

|  |  |  |
| --- | --- | --- |
| **PRODUCTLINEID** | **TOTAL\_LINES** | **MEAN** |
| 1 | 6 | 784 |
| 2 | 3 | 608 |
| 4 | 2 | 995 |

**5-77**

SELECT COUNT(ORDERID) TOTAL\_ORDER, CUSTOMERID

FROM ORDER\_T

GROUP BY CUSTOMERID

HAVING COUNT(ORDERID) > 2

|  |  |
| --- | --- |
| **TOTAL\_ORDER** | **CUSTOMERID** |
| 3 | 6 |
| 6 | 1 |
| 3 | 15 |
| 5 | 12 |
| 28 | 4 |
| 3 | 9 |
| 5 | 16 |

**6-46**

SELECT L.PRODUCTLINENAME, P.PRODUCTLINEID, COUNT(P.PRODUCTLINEID) TOTAL\_LINE,ROUND(AVG(PRODUCTSTANDARDPRICE))

FROM PRODUCTLINE\_T L, PRODUCT\_T P

WHERE L.PRODUCTLINEID = P.PRODUCTLINEID

GROUP BY L.PRODUCTLINENAME, P.PRODUCTLINEID

|  |  |  |  |
| --- | --- | --- | --- |
| **PRODUCTLINENAME** | **PRODUCTLINEID** | **TOTAL\_LINE** | **ROUND(AVG(PRODUCTSTANDARDPRICE))** |
| Basic | 1 | 9 | 581 |
| Classical | 4 | 2 | 995 |
| Futuristic | 5 | 2 | 165 |
| Modern | 3 | 5 | 222 |
| Antique | 2 | 3 | 608 |

**6-59**

SELECT DISTINCT C.CUSTOMERID, C.CUSTOMERNAME, L.PRODUCTLINENAME

FROM PRODUCT\_T P

INNER JOIN PRODUCTLINE\_T L

ON P.PRODUCTLINEID = L.PRODUCTLINEID

INNER JOIN ORDERLINE\_T O

ON P.PRODUCTID = O.PRODUCTID

INNER JOIN ORDER\_T D

ON D.ORDERID = O.ORDERID

INNER JOIN CUSTOMER\_T C

ON C.CUSTOMERID = D.CUSTOMERID

WHERE L.PRODUCTLINENAME = 'Basic' AND D.ORDERDATE BETWEEN TO\_DATE('01/mar/18','DD/MON/YY') AND TO\_DATE('31/mar/18','DD/MON/YY')

ORDER BY C.CUSTOMERID

|  |  |  |
| --- | --- | --- |
| **CUSTOMERID** | **CUSTOMERNAME** | **PRODUCTLINENAME** |
| 1 | Contemporary Casuals | Basic |
| 4 | Eastern Furniture | Basic |
| 9 | A Carpet | Basic |
| 13 | Ikards | Basic |
| 14 | Wild Bills | Basic |
| 16 | ABC Furniture Co. | Basic |

**6-64**

SELECT COUNT(PRODUCTLINEID) TOTALPRODUCTS, W.WORKCENTERID,

CASE WHEN W.WORKCENTERID = 'WR1' THEN COUNT(PRODUCTLINEID) ELSE 0 END AS TOTAL\_WR1,

CASE WHEN W.WORKCENTERID = 'TSM1' THEN COUNT(PRODUCTLINEID) ELSE 0 END AS TOTAL\_SM1

FROM PRODUCT\_T P, PRODUCEDIN\_T DU, WORKCENTER\_T W

WHERE P.PRODUCTID = DU.PRODUCTID AND DU.WORKCENTERID = W.WORKCENTERID

GROUP BY W.WORKCENTERID

|  |  |  |  |
| --- | --- | --- | --- |
| **TOTALPRODUCTS** | **WORKCENTERID** | **TOTAL\_WR1** | **TOTAL\_SM1** |
| 14 | Tampa1 | 0 | 0 |

**6-69**

SELECT DISTINCT C.CUSTOMERNAME, C.CUSTOMERID, O.ORDERID

FROM CUSTOMER\_T C

FULL OUTER JOIN ORDER\_T O

ON C.CUSTOMERID = O.CUSTOMERID

|  |  |  |
| --- | --- | --- |
| **CUSTOMERNAME** | **CUSTOMERID** | **ORDERID** |
| Eastern Furniture | 4 | 1 |
| Home Furnishings | 3 | 2 |
| Contemporary Casuals | 1 | 3 |
| Furniture Gallery | 6 | 4 |
| Eastern Furniture | 4 | 5 |
| Eastern Furniture | 4 | 6 |
| Contemporary Casuals | 1 | 7 |
| Eastern Furniture | 4 | 8 |
| Furniture Gallery | 6 | 9 |
| Eastern Furniture | 4 | 19 |
| Eastern Furniture | 4 | 20 |
| Eastern Furniture | 4 | 21 |
| Eastern Furniture | 4 | 22 |
| Eastern Furniture | 4 | 23 |
| Contemporary Casuals | 1 | 24 |
| Eastern Furniture | 4 | 25 |
| Eastern Furniture | 4 | 26 |
| Eastern Furniture | 4 | 27 |
| Eastern Furniture | 4 | 28 |
| Eastern Furniture | 4 | 29 |
| Eastern Furniture | 4 | 30 |
| Janet's Collection | 15 | 31 |
| Janet's Collection | 15 | 32 |
| Janet's Collection | 15 | 34 |
| Dunkins Furniture | 8 | 35 |
| Eastern Furniture | 4 | 36 |
| Eastern Furniture | 4 | 37 |
| Eastern Furniture | 4 | 38 |
| Eastern Furniture | 4 | 39 |
| Eastern Furniture | 4 | 40 |
| Flanigan Furniture | 12 | 41 |
| Eastern Furniture | 4 | 42 |
| Flanigan Furniture | 12 | 43 |
| Furniture Gallery | 6 | 44 |
| Flanigan Furniture | 12 | 45 |
| Contemporary Casuals | 1 | 46 |
| Flanigan Furniture | 12 | 47 |
| Contemporary Casuals | 1 | 48 |
| Eastern Furniture | 4 | 49 |
| Dunkins Furniture | 8 | 50 |
| ABC Furniture Co. | 16 | 51 |
| ABC Furniture Co. | 16 | 52 |
| ABC Furniture Co. | 16 | 53 |
| ABC Furniture Co. | 16 | 54 |
| ABC Furniture Co. | 16 | 55 |
| A Carpet | 9 | 56 |
| A Carpet | 9 | 57 |
| Wild Bills | 14 | 58 |
| Ikards | 13 | 59 |
| Eastern Furniture | 4 | 63 |
| Eastern Furniture | 4 | 64 |
| Eastern Furniture | 4 | 65 |
| A Carpet | 9 | 66 |
| Eastern Furniture | 4 | 69 |
| Eastern Furniture | 4 | 71 |
| Flanigan Furniture | 12 | 73 |
| Contemporary Casuals | 1 | 75 |
| Eastern Furniture | 4 | 76 |
| - | - | 93 |
| Elaina(Yaogui) Huang | 27 | - |
| New Furniture | 7 | - |
| Value Furnitures | 2 | - |
| Impressions | 5 | - |

**6-78**

SELECT PRODUCTID, PRODUCTDESCRIPTION

FROM PRODUCT\_T P

WHERE PRODUCTSTANDARDPRICE <

(SELECT AVG(PRODUCTSTANDARDPRICE)

FROM PRODUCT\_T);

|  |  |
| --- | --- |
| **PRODUCTID** | **PRODUCTDESCRIPTION** |
| 1 | Cherry End Table |
| 2 | Birch Coffee Tables |
| 5 | Writer's Desk |
| 7 | 48 Bookcase |
| 8 | 48 Bookcase |
| 9 | 96 Bookcase |
| 10 | 96 Bookcase |
| 13 | Nightstand |
| 14 | Writer's Desk |
| 17 | High Back Leather Chair |
| 21 | Pine End Table |
| 26 | Red Kitchen Chair |
| 27 | Black Steel End Table |