DBT Problem Solving - Set - 003

Feb19/ DBT-PS/ 003

Database Technologies

Diploma in Advance Computing

February 2019

**Salespeople Table:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Snum** | **Sname** | **City** | **Comm** |
| **1001** | **Peel** | **London** | **.12** |
| **1002** | **Serres** | **San Jose** | **.13** |
| **1004** | **Monika** | **London** | **.11** |
| **1007** | **Rifkin** | **Barcelona** | **.15** |
| **1003** | **Axelrod** | **New York** | **.10** |
| **1005** | **Franc** | **London** | **.26** |

**Customers Table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cnum (PK)** | **Cname** | **City** | **Rating** | **Snum (FK)** |
| **2001** | **Hoffman** | **London** | **100** | **1001** |
| **2002** | **Giovanni** | **Rome** | **200** | **1003** |
| **2003** | **Liu** | **San Jose** | **200** | **1002** |
| **2004** | **Grass** | **Berlin** | **300** | **1002** |
| **2006** | **Clemens** | **London** | **100** | **1001** |
| **2008** | **Cisneros** | **San Jose** | **300** | **1007** |
| **2007** | **Pereira** | **Rome** | **100** | **1004** |

**Orders Table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Onum (PK)** | **Amt** | **Odate** | **Cnum (FK)** | **Snum (FK)** |
| **3001** | **18.69** | **1996-10-03** | **2008** | **1007** |
| **3003** | **767.19** | **1996-10-03** | **2001** | **1001** |
| **3002** | **1900.10** | **1996-10-03** | **2007** | **1004** |
| **3005** | **5160.45** | **1996-10-03** | **2003** | **1002** |
| **3006** | **1098.16** | **1996-10-03** | **2008** | **1007** |
| **3009** | **1713.23** | **1996-10-04** | **2002** | **1003** |
| **3007** | **75.75** | **1996-10-04** | **2002** | **1003** |
| **3008** | **4723.00** | **1996-10-05** | **2006** | **1001** |
| **3010** | **1309.95** | **1996-10-06** | **2004** | **1002** |
| **3011** | **9891.88** | **1996-10-06** | **2006** | **1001** |
| **3012** | **3455.78** | **1996-10-04** | **2002** | **1003** |
| **3013** | **1245.98** | **1996-10-04** | **2002** | **1003** |
| **3014** | **3721.53** | **1996-10-05** | **2006** | **1001** |
| **3015** | **734.50** | **1996-10-06** | **2004** | **1002** |
| **3016** | **1729.67** | **1996-10-06** | **2006** | **1001** |

**Given the above tables solve the following queries.**

1. **Write SQL statement which lists all customers with a rating of 100.**

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1. **Write SQL statement that displays all the salespeople who are living in city ‘London’.**

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1. **Write SQL statement to find the largest order taken by each salesperson.**

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1. **Write SQL statement to find the largest order taken by each salesperson on each date.**

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1. **Write a query to arrange the Orders table by descending customer number.**

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1. **Write a query to find salespeople name, city and current order details like order number, amount and order date from the Orders table.**

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1. **Write a query to list names of all customers matched with the salespeople serving them.**

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1. **Write a query to find the names and numbers of all salespeople who had more than one customer.**

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1. **Write a query to count the orders of each of the salespeople and print the results in descending order.**

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1. **Write a query to list the Customer table that are located in 'San Jose'.**

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1. **Write a query to match salespeople to customers according to what city they lived in.**

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1. **Write a query to find customers in 'San Jose' who has a rating above 200.**

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1. **Write a query to list the names and commissions of all salespeople in 'London'.**

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1. **Write a query to list all the orders of salesperson 'Monika' from the Orders table.**

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1. **Write a query to find all customers with orders in the month of 'October'.**

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ANSWERS.

1. **Select \* from customers where rating = 100;**
2. **Select \* from salespeople where city = 'London'**
3. **Select sname, max(amt) from salespeople, orders where salespeople.snum = orders.snum group by sname;**
4. **Select sname, odate, max(amt) from salespeople, orders where salespeople.snum = orders.snum group by sname, odate;**
5. **Select \* from orders order by cnum desc;**
6. **Select sname, city, onum, amt, odate from orders o, salespeople s where o.snum = s.snum;**
7. **Select \* from customers c, salespeople s where c.snum = s.snum;**
8. **Select sname, count(\*) from salespeople s, customers c where s.snum = c.snum group by sname having count(\*) > 1;**
9. **Select snum, count(\*) from orders group by snum order by 2 desc;**
10. **Select \* from customers where city = 'San Jose';**
11. **Select \* from customers c, salespeople s where c.snum = s.snum and c.city = s.city;**
12. **Select \* from customers where city = 'san jose' and rating >200;**
13. **Select sname, comm from salespeople where city = 'London';**
14. **Select sname, o.\* from orders o, salespeople s where o.snum=s.snum and sname='Monika';**
15. **Select c.\*, odate from orders o, customers c where c.cnum = o.cnum and monthname(odate) = 'October';**