DBT Problem Solving - Set - 004

Feb19/ DBT-PS/ 004

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 a query to find all pairs of customers having the same rating.**

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1. **Write a query to find the largest order taken by each salesperson on each date, eliminating those MAX orders, which are less than $3000.00 in value.**

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1. **Write a query to fist the largest orders on October, for each salesperson.**

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1. **Write a query to find all customers located in cities where salesperson ‘Serres’ is living.**

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1. **Write a query to get all customers with a rating above 200.**

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1. **Write a query to count the number of salespeople currently listing orders in the Orders table.**

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1. **Write a query to find salespeople who have multiple customers.**

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1. **Write a query to find salespeople with customers located in their city.**

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1. **Write a query to find all salespeople whose name starts with 'P' and the fourth character is 'I'.**

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1. **Write a query to find the largest orders for ‘Serres’ and ‘Rifkin’.**

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1. **Write a query to extract the salespeople table in the following order: snum, sname, commission, and city.**

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1. **Write a query to select all the possible combinations of customers that you can assign.**

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1. **Write a query to select all orders that are greater than the average for ‘October’.**

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1. **Write a query that produces the rating followed by the name of each customer in San Jose.**

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1. **Write a query to find all orders with amounts smaller than any amount for a customer in ‘San Jose’.**

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ANSWERS

1. **select p1.cname, p2.cname from customers p1, customers p2 where p1.rating = p2.rating and p1.cnum <> p2.cnum;**
2. **select odate, snum, max(amt) from orders group by odate, snum having max(amt) >3000;**
3. **select snum, max(amt) from orders where monthname(odate) = 'October' group by snum;**
4. **select c.\* from customers c, salespeople s where c.city = s.city and sname='Serres';**
5. **select c.\* from customers c where rating > 200;**
6. **select s.snum, count(\*) from orders o, salespeople s where o.snum = s.snum group by s.snum;**
7. **select sname, count(\*)from salespeople s, customers c where s.snum = c.snum group by sname having count(\*)>1;**
8. **select cname, sname from customers c, salespeople s where c.city = s.city;**
9. **select sname from salespeople where sname like 'p\_\_l%';**
10. **select sname, max(amt) from orders o, salespeople s where o.snum=s.snum and sname in ('Serres', 'Rifkin') group by sname;**
11. **select snum, sname, comm, city from salespeople;**
12. **select c1.cname, c2.cname from customers c1, customers c2;**
13. **select \* from orders where amt > (select avg(amt) from orders where monthname(odate) = 'October');**
14. **select rating, cname from customers where city = 'san jose';**
15. **select \* from orders where amt <any (select amt from customers c, orders o where c.cnum = o.cnum and city ='san jose');**