Assignment – 12
Using the operators IN, ANY, and ALL.

1) Write a query that selects all customers whose ratings are equal to or greater than ANY of Serres'.
   Query:

select cname from customers
  -> where rating >= any (select rating from customers
  -> where snum = (select snum from salespeople
    -> where snum = (select snum from salespeople where sname = 'Serres')));

```
D3_93025_Omkar>select cname from customers
    -> where rating >= any (select rating from customers
    -> where snum = (select snum from salespeople
    -> where snum = (select snum from salespeople where sname = 'Serres')));
+----------+
| cname    |
+----------+
| Giovanni |
| Liu      |
| Grass    |
| Cisneros |
+----------+
```

2) Write a query using ANY or ALL that will find all salespeople who have no customers located in their city.

Query: select sname from salespeople
  -> where snum != all
  -> (select c.snum from customers c join salespeople s on s.snum = c.snum
    -> where c.city = s.city);

```
D3_93025_Omkar>select sname from salespeople
    -> where snum != all
    -> (select c.snum from customers c join salespeople s on s.snum = c.snum
    -> where c.city = s.city);
+---------+
| sname   |
+---------+
| Motika  |
| Rifkin  |
| Axelrod |
+---------+
```

3) Write a query that selects all orders for amounts greater than any for the customers in London.

Query:
select * from orders
  -> where amt > any (select o.amt from orders o join customers c
  -> on c.cnum = o.cnum
  -> where c.city = 'London');

```
D3_93025_Omkar>select * from orders
    -> where amt > any (select o.amt from orders o join customers c
    -> on c.cnum = o.cnum
    -> where c.city = 'London');
+-------+---------+------------+-------+-------+
| Onum  | Amt     | Odate      | Cnum  | Snum  |
+-------+---------+------------+-------+-------+
| 3002  | 1900.10 | 1990-10-03 | 2007  | 1004  |
| 3005  | 5160.45 | 1990-10-03 | 2003  | 1002  |
| 3006  | 1098.16 | 1990-10-03 | 2008  | 1007  |
| 3009  | 1713.23 | 1990-10-04 | 2002  | 1003  |
| 3008  | 4723.00 | 1990-10-05 | 2006  | 1001  |
| 3010  | 1309.95 | 1990-10-06 | 2004  | 1002  |
| 3011  | 9891.88 | 1990-10-06 | 2006  | 1001  |
+-------+---------+------------+-------+-------+
```

4) Write the above query using MIN or MAX.

Query: Using MAX

select * from orders
    -> where amt = (select max(o.amt) from orders o join customers c
    -> on c.cnum = o.cnum
        -> where c.city = 'London');

```
D3_93025_Omkar>select * from orders
    -> where amt = (select max(o.amt) from orders o join customers c
    -> on c.cnum = o.cnum
    -> where c.city = 'London');
+-------+---------+------------+-------+-------+
| Onum  | Amt     | Odate      | Cnum  | Snum  |
+-------+---------+------------+-------+-------+
| 3011  | 9891.88 | 1990-10-06 | 2006  | 1001  |
+-------+---------+------------+-------+-------+
```

Query: Using MIN

where amt > (select min(o.amt) from orders o join customers c
    -> on c.cnum = o.cnum
        -> where c.city = 'London');

```
D3_93025_Omkar>select * from orders
    -> where amt > (select min(o.amt) from orders o join customers c
    -> on c.cnum = o.cnum
    -> where c.city = 'London');
+-------+---------+------------+-------+-------+
| Onum  | Amt     | Odate      | Cnum  | Snum  |
+-------+---------+------------+-------+-------+
| 3002  | 1900.10 | 1990-10-03 | 2007  | 1004  |
| 3005  | 5160.45 | 1990-10-03 | 2003  | 1002  |
| 3006  | 1098.16 | 1990-10-03 | 2008  | 1007  |
| 3009  | 1713.23 | 1990-10-04 | 2002  | 1003  |
| 3008  | 4723.00 | 1990-10-05 | 2006  | 1001  |
| 3010  | 1309.95 | 1990-10-06 | 2004  | 1002  |
| 3011  | 9891.88 | 1990-10-06 | 2006  | 1001  |
+-------+---------+------------+-------+-------+
```