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'.

```
mysql> SELECT c1.cname, o1.onum FROM orders o1 JOIN customers c1
    -> ON o1.cnum=c1.cnum
    -> WHERE c1.rating >= ANY (SELECT c2.rating FROM orders o2 JOIN customers c2 ON o2.cnum=c2.cnum
JOIN salespeople s1 ON o2.snum=s1.snum WHERE s1.sname = 'Serres');
+----------+------+
| cname    | onum |
+----------+------+
| Cisneros | 3001 |
| Liu      | 3005 |
| Cisneros | 3006 |
| Giovanni | 3009 |
| Grass    | 3007 |
| Grass    | 3010 |
+----------+------+
6 rows in set (0.00 sec)
```

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

```
mysql> SELECT s.sname FROM salespeople s
    -> WHERE s.city!=ALL(SELECT city FROM customers);
+---------+
| sname   |
+---------+
| Rifkin  |
| Axelrod |
+---------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM orders
    -> WHERE amt > ANY (
    ->     SELECT o.amt
    ->     FROM orders o
    ->     JOIN customers c ON o.cnum = c.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 |
+------+---------+------------+------+------+
7 rows in set (0.00 sec)
```

4) Write the above query using MIN or MAX

```
mysql> SELECT * FROM orders
    -> WHERE amt > (
    ->     SELECT MIN(o.amt)
    ->     FROM orders o
    ->     JOIN customers c ON o.cnum = c.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 |
+------+---------+------------+------+------+
7 rows in set (0.00 sec)
```