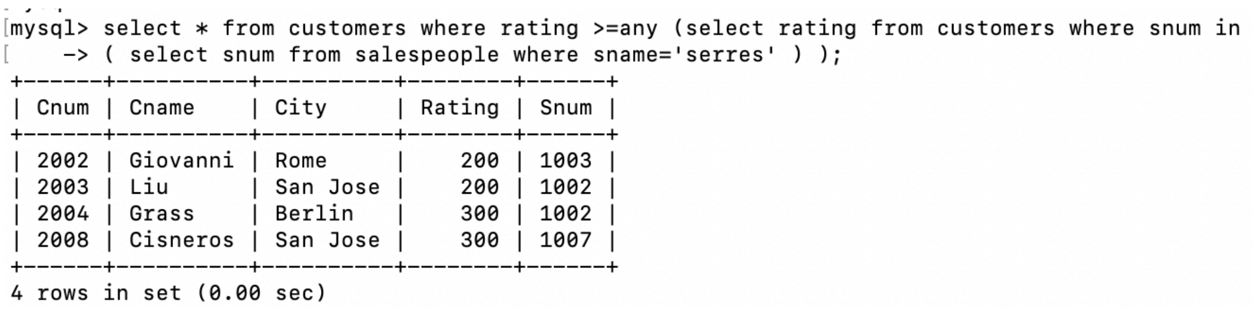
Assignment 12

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'.

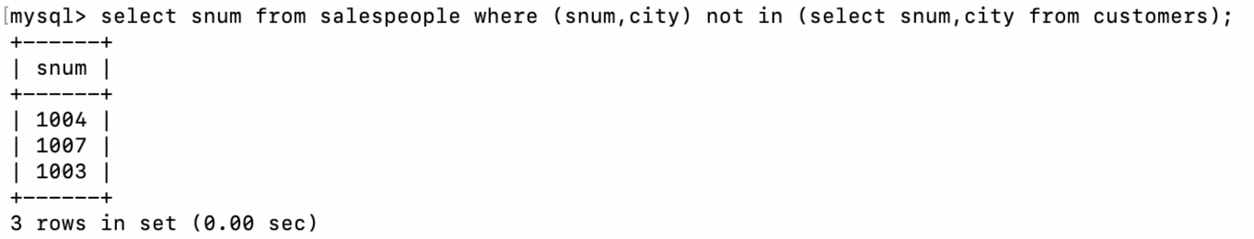
select * from customers where rating >=any (select rating from customers where snum in
(select snum from salespeople where sname='serres'));



```
[mysql> select * from customers where rating >=any (select rating from customers where snum in
[    -> ( select snum from salespeople where sname='serres' ) );
+------+----------+----------+--------+------+
| Cnum | Cname    | City     | Rating | Snum |
+------+----------+----------+--------+------+
| 2002 | Giovanni | Rome     |    200 | 1003 |
| 2003 | Liu      | San Jose |    200 | 1002 |
| 2004 | Grass    | Berlin   |    300 | 1002 |
| 2008 | Cisneros | San Jose |    300 | 1007 |
+------+----------+----------+--------+------+
4 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.

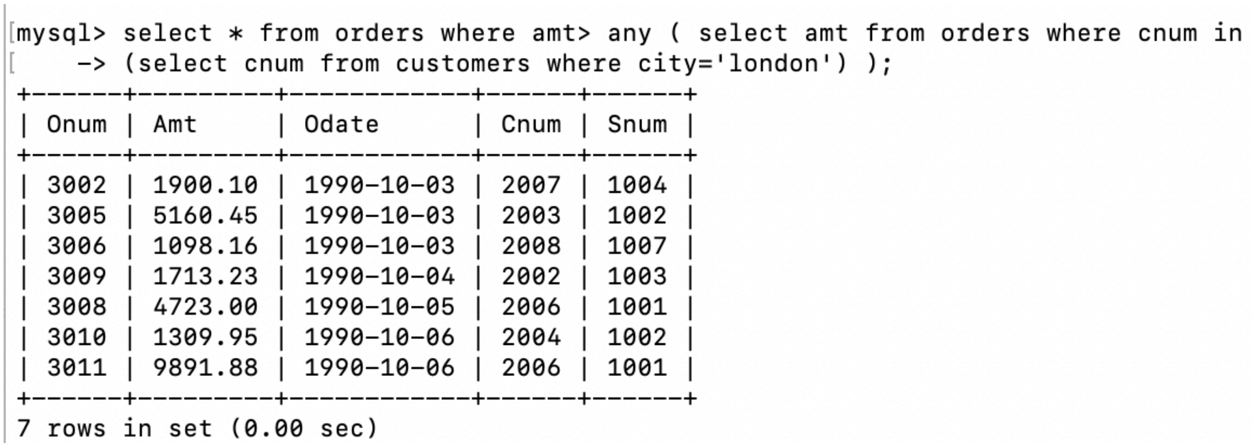
select snum from salespeople where (snum,city) not in (select snum,city from customers);



```
[mysql> select snum from salespeople where (snum,city) not in (select snum,city from customers);
+------+
| snum |
+------+
| 1004 |
| 1007 |
| 1003 |
+------+
3 rows in set (0.00 sec)
```

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

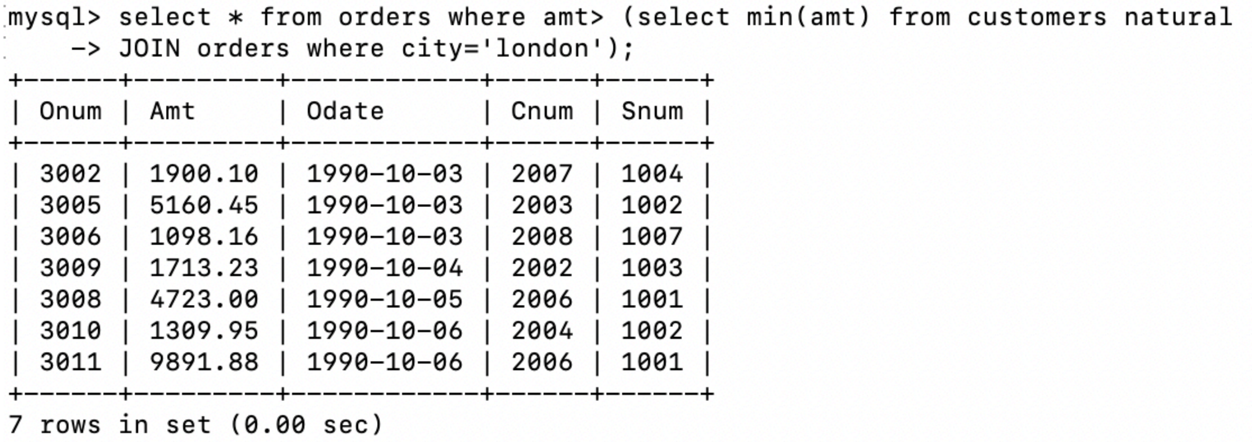
select * from orders where amt> any (select amt from orders where cnum in (select cnum from customers where city='london'));



```
[mysql> select * from orders where amt> any ( select amt from orders where cnum in
[    -> (select cnum from customers where 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.

select * from orders where amt> (select min(amt) from customers natural JOIN orders where city='london');



```
mysql> select * from orders where amt> (select min(amt) from customers natural
    -> JOIN orders where 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)
```