Assignment –7 Solution
Summarizing Data with Aggregate Functions.

1) **Write a query that counts all orders for October 3.**

```
mysql> select count(odate)
    -> from orders
    -> where odate like '%03';
+--------------+
| count(odate) |
+--------------+
|          5   |
+--------------+
```

2) **Write a query that counts the number of different non-NULL city values in the Customers table.**

```
mysql> select * from customer;
+------+----------+----------+--------+------+
| Cnum | Cname    | City     | Rating | Snum |
+------+----------+----------+--------+------+
| 2001 | Hoffman  | NULL     |    100 | 1001 |
| 2002 | Giovanni | Rome     |    200 | 1003 |
| 2003 | Liu      | San Jose |    200 | 1002 |
| 2004 | Grass    | Berlin   |    300 | 1002 |
| 2006 | Clemens  | NULL     |    100 | 1001 |
| 2008 | Cisneros | San Jose |    300 | 1007 |
| 2007 | Pereira  | Rome     |    100 | 1004 |
+------+----------+----------+--------+------+
7 rows in set (0.00 sec)

mysql> select count(city) from customer
    -> where city is not null;
+-------------+
| count(city) |
+-------------+
|           5 |
+-------------+
```

3) **Write a query that selects each customer's smallest order.**

```
mysql> select o.cnum,c.cname, min(o.amt) as smallest_order
    -> from orders o
    -> join customer c on o.cnum = c.cnum
    -> group by o.cnum, c.cname;
+------+----------+----------------+
| cnum | cname    | smallest_order |
+------+----------+----------------+
| 2008 | Cisneros |          18.69 |
| 2001 | Hoffman  |         767.19 |
| 2007 | Pereira  |        1900.10 |
| 2003 | Liu      |        5160.45 |
| 2002 | Giovanni |        1713.23 |
| 2004 | Grass    |          75.75 |
| 2006 | Clemens  |        4723.00 |
+------+----------+----------------+
7 rows in set (0.01 sec)
```

4) **Write a query that selects the first customer, in alphabetical order, whose name begins with G.**

```
mysql> select cname from customer
    -> where cname like "G%"
    -> order by cname
    -> limit 1;
+----------+
| cname    |
+----------+
| Giovanni |
+----------+
1 row in set (0.00 sec)
```

5) Write a query that selects the highest rating in each city.

```
mysql> select city,max(rating) from customer
    -> group by city;
+----------+-------------+
| city     | max(rating) |
+----------+-------------+
| London   |         100 |
| Rome     |         200 |
| San Jose |         300 |
| Berlin   |         300 |
+----------+-------------+
4 rows in set (0.00 sec)

mysql>
```

6) Write a query that counts the number of salespeople registering orders for each day. (If a salesperson has more than one order on a given day, he or she should be counted only once.).

```
mysql> select orders.odate, count(distinct orders.snum) as Salespeople_Count
    from salespeople
    -> left join orders on
    -> salespeople.snum = orders.snum
    -> group by orders.odate;
+------------+-------------------+
| odate      | Salespeople_Count |
+------------+-------------------+
| 1990-10-03 |                 4 |
| 1990-10-04 |                 2 |
| 1990-10-05 |                 1 |
| 1990-10-06 |                 2 |
+------------+-------------------+
4 rows in set (0.01 sec)
```