1 Assignment –5 Relational and Logical Operators.

1) Write a query that will give you all orders for more than Rs. 1,000

```
KD2_86715_harshad@>select * from orders;
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 3001 |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 |  767.19 | 1990-10-03 | 2001 | 1001 |
| 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 |
| 3007 |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+------+---------+------------+------+------+
10 rows in set (0.00 sec)

KD2_86715_harshad@>select * from orders
    -> where Amt > 1000;
+------+---------+------------+------+------+
| 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)
```

2) Write a query that will give you the names and cities of all salespeople in London with a commission above .10.

```
KD2_86715_harshad@>select * from salespeople;
+------+---------+-----------+------+
| Snum | Sname   | City      | Comm |
+------+---------+-----------+------+
| 1001 | Peel    | London    | 0.12 |
| 1002 | Serres  | San Jose  | 0.13 |
| 1004 | Motika  | London    | 0.11 |
| 1007 | Rifkin  | Barcelona | 0.15 |
| 1003 | Axelrod | New York  | 0.10 |
+------+---------+-----------+------+
5 rows in set (0.00 sec)

KD2_86715_harshad@>select Sname, City from salespeople
    -> where City = 'London' and Comm > 0.10;
+--------+--------+
| Sname  | City   |
+--------+--------+
| Peel   | London |
| Motika | London |
+--------+--------+
2 rows in set (0.00 sec)
```

3) Write a query on the Customers table whose output will exclude all customers with a rating <= 100, unless they are located in Rome.

```
KD2_86715_harshad@>select * from customers;
+------+----------+----------+--------+------+
| Cnum | Cname    | City     | Rating | Snum |
+------+----------+----------+--------+------+
| 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 |
+------+----------+----------+--------+------+
7 rows in set (0.02 sec)

KD2_86715_harshad@>select * from customers
    -> where City = 'Rome' and rating > 100;
+------+----------+------+--------+------+
| Cnum | Cname    | City | Rating | Snum |
+------+----------+------+--------+------+
| 2002 | Giovanni | Rome |    200 | 1003 |
+------+----------+------+--------+------+
1 row in set (0.00 sec)
```

4) What will be the output from the following query?

Select * from Orders where (amt < 1000 OR NOT (odate = '1990-10-03' AND cnum > 2003));

```
KD2_86715_harshad@>select * from orders;
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 3001 |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 |  767.19 | 1990-10-03 | 2001 | 1001 |
| 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 |
| 3007 |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+------+---------+------------+------+------+
10 rows in set (0.00 sec)

KD2_86715_harshad@>select * from orders
    -> where(Amt < 1000 or not(Odate = '1990-10-03' and Cnum > 2003));
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 3001 |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 |  767.19 | 1990-10-03 | 2001 | 1001 |
| 3005 | 5160.45 | 1990-10-03 | 2003 | 1002 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3007 |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+------+---------+------------+------+------+
```

5) What will be the output of the following query? Select * from Orders where NOT ((odate = '1990-10-03' OR snum >1006) AND amt >= 1500);

```
KD2_86715_harshad@>select * from orders;
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 3001 |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 |  767.19 | 1990-10-03 | 2001 | 1001 |
| 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 |
| 3007 |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+------+---------+------------+------+------+
10 rows in set (0.00 sec)

KD2_86715_harshad@>select * from orders
    -> where not ((Odate = '1990-10-03' or Snum > 1006) and amt >= 1500);
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 3001 |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 |  767.19 | 1990-10-03 | 2001 | 1001 |
| 3006 | 1098.16 | 1990-10-03 | 2008 | 1007 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3007 |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+------+---------+------------+------+------+
```

6) What is a simpler way to write this query? Select snum, sname, city, comm From Salespeople where (comm > .12 OR comm <.14)

```
KD2_86715_harshad@>select * from salespeople
    -> where comm > .12 or comm < .14;
+------+---------+-----------+------+
| Snum | Sname   | City      | Comm |
+------+---------+-----------+------+
| 1001 | Peel    | London    | 0.12 |
| 1002 | Serres  | San Jose  | 0.13 |
| 1004 | Motika  | London    | 0.11 |
| 1007 | Rifkin  | Barcelona | 0.15 |
| 1003 | Axelrod | New York  | 0.10 |
+------+---------+-----------+------+
5 rows in set (0.00 sec)

KD2_86715_harshad@>select snum, sname, city, comm from salespeople
    -> where comm > .12 or comm < .14;
+------+---------+-----------+------+
| snum | sname   | city      | comm |
+------+---------+-----------+------+
| 1001 | Peel    | London    | 0.12 |
| 1002 | Serres  | San Jose  | 0.13 |
| 1004 | Motika  | London    | 0.11 |
| 1007 | Rifkin  | Barcelona | 0.15 |
| 1003 | Axelrod | New York  | 0.10 |
+------+---------+-----------+------+
5 rows in set (0.00 sec)
```