

Assignment –5 Relational and Logical Operators.

- 1) Write a query that will give you all orders for more than Rs. 1,000.
- 2) Write a query that will give you the names and cities of all salespeople in London with a commission above .10.
- 3) Write a query on the Customers table whose output will exclude all customers with a rating <= 100, unless they are located in Rome.
- 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));
```

- 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);
```

- 6) What is a simpler way to write this query?

```
Select snum, sname, city, comm From Salespeople
where (comm > .12 OR comm <.14);
```

```
MySQL 9.0 Command Line C# x + v
5 rows in set (0.01 sec)

mysql> 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 |
| 2007 | Pereira | Rome | 100 | 1004 |
| 2008 | Cisneros | San Jose | 300 | 1007 |
+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)

mysql> select * from orders where orders>1000;
ERROR 1054 (42S22): Unknown column 'orders' in 'where clause'
mysql> select * from orders where Onum > 1000;
+-----+-----+-----+-----+-----+
| Onum | Amt | Odate | Cnum | Snum |
+-----+-----+-----+-----+-----+
| 3001 | 18.69 | 1990-10-03 | 2008 | 1007 |
| 3002 | 1900.10 | 1990-10-03 | 2007 | 1004 |
| 3003 | 767.19 | 1990-10-03 | 2001 | 1001 |
| 3005 | 5160.45 | 1990-10-03 | 2003 | 1002 |
| 3006 | 1098.16 | 1990-10-03 | 2008 | 1007 |
| 3007 | 75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+-----+-----+-----+-----+-----+
10 rows in set (0.01 sec)

mysql> 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 |
+-----+-----+-----+-----+-----+
```

```
MySQL 9.0 Command Line C# x + v
10 rows in set (0.01 sec)

mysql> 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 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)

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

mysql> select * from salespeople ORDER BY names,cities AND Comm>10
->
ERROR 1054 (42S22): Unknown column 'names' in 'order clause'
mysql> select * from salespeople ORDER BY Sname,City AND Comm>10
->
+-----+-----+-----+-----+
| Snum | Sname | City | Comm |
+-----+-----+-----+-----+
| 1003 | Axelrod | New York | 0.10 |
| 1004 | Motika | London | 0.11 |
| 1001 | Peel | London | 0.12 |
| 1007 | Rifkin | Barcelona | 0.15 |
| 1002 | Serres | San Jose | 0.13 |
+-----+-----+-----+-----+
```

```
mysql> select Sname,city from salespeople Where City='London' AND Comm > 0.10;
+-----+-----+
| Sname | city |
+-----+-----+
| Peel  | London |
| Motika | London |
+-----+-----+
2 rows in set (0.01 sec)

mysql> SELECT name, city
-> FROM salespeople
-> WHERE city = 'London' AND commission > 0.10;
ERROR 1054 (42S22): Unknown column 'name' in 'field list'
mysql> select Sname,city from salespeople Where City='London' AND Comm > 10;
Empty set (0.01 sec)

mysql> 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 |
| 2007 | Pereira | Rome | 100 | 1004 |
| 2008 | Cisneros | San Jose | 300 | 1007 |
+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)

mysql> select * from customers Where City='Rome' OR rating<100;
+-----+-----+-----+-----+-----+
| Cnum | Cname | City | Rating | Snum |
+-----+-----+-----+-----+-----+
| 2002 | Giovanni | Rome | 200 | 1003 |
| 2007 | Pereira | Rome | 100 | 1004 |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> Select * from Orders
```

```
mysql> Select * from Orders
-> where (amt < 1000 OR
-> NOT (odate = '1990-10-03'
-> AND cnum > 2003));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '?'
1990-10-03?
AND cnum > 2003))' at line 3
mysql> Select * from Orders;
+-----+-----+-----+-----+-----+
| Onum | Amt | Odate | Cnum | Snum |
+-----+-----+-----+-----+-----+
| 3001 | 18.69 | 1990-10-03 | 2008 | 1007 |
| 3002 | 1900.10 | 1990-10-03 | 2007 | 1004 |
| 3003 | 767.19 | 1990-10-03 | 2001 | 1001 |
| 3005 | 5160.45 | 1990-10-03 | 2003 | 1002 |
| 3006 | 1098.16 | 1990-10-03 | 2008 | 1007 |
| 3007 | 75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> Select * from Orders
-> where (amt < 1000 OR
-> NOT (odate = '1990-10-03'
-> AND cnum > 2003));
->
-> ^C
mysql> SELECT *
-> FROM Orders
-> WHERE (amt < 1000
-> OR NOT (odate = '1990-10-03' AND cnum > 20));
+-----+-----+-----+-----+-----+
| Onum | Amt | Odate | Cnum | Snum |
+-----+-----+-----+-----+-----+
| 3001 | 18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 | 767.19 | 1990-10-03 | 2001 | 1001 |
+-----+-----+-----+-----+-----+
```

```
MySQL 9.0 Command Line C# x + -
| 3001 | 18.69 | 1990-10-03 | 2008 | 1007 |
| 3003 | 767.19 | 1990-10-03 | 2001 | 1001 |
| 3007 | 75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> 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 |
| 3007 | 75.75 | 1990-10-04 | 2004 | 1002 |
| 3008 | 4723.00 | 1990-10-05 | 2006 | 1001 |
| 3009 | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3010 | 1309.95 | 1990-10-06 | 2004 | 1002 |
| 3011 | 9891.88 | 1990-10-06 | 2006 | 1001 |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql> SELECT snum, sname, city, comm
-> FROM Salespeople
-> WHERE comm != 0.12;
+-----+-----+-----+-----+
| snum | sname | city | comm |
+-----+-----+-----+-----+
| 1002 | Serres | San Jose | 0.13 |
| 1003 | Axelrod | New York | 0.10 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rifkin | Barcelona | 0.15 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> |
```