mysql> drop database retail1;

Query OK, 1 row affected (0.10 sec)

mysql> create database retail;

Query OK, 1 row affected (0.00 sec)

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| abc |

| mysql |

| performance\_schema |

| retail |

| sakila |

| test |

| world |

+--------------------+

8 rows in set (0.00 sec)

mysql> use retail;

Database changed

mysql> show tables;

Empty set (0.00 sec)

Enter password: \*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 2

Server version: 5.5.51-log MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective

owners.

mysql> drop database retail;

Query OK, 5 rows affected (0.68 sec)

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| abc |

| mysql |

| performance\_schema |

| retail1 |

| sakila |

| test |

| world |

+--------------------+

8 rows in set (0.20 sec)

mysql> drop database retail1;

Query OK, 1 row affected (0.10 sec)

mysql> create database retail;

Query OK, 1 row affected (0.00 sec)

mysql> use database retail;

ERROR 1049 (42000): Unknown database 'database'

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| abc |

| mysql |

| performance\_schema |

| retail |

| sakila |

| test |

| world |

+--------------------+

8 rows in set (0.00 sec)

mysql> use retail;

Database changed

mysql> create database retail;

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 'Query

OK, 1 row affected (0.10 sec)

mysql> create database retail' at line 1

mysql> Query OK, 1 row affected (0.00 sec

-> ;

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 'Query

OK, 1 row affected (0.00 sec' at line 1

mysql> show tables;

Empty set (0.00 sec)

mysql> create table if not exists customer (cnum int not null, cname varchar(30) not null, city varchar(30) not null, rating int not null, snum int not null, primary key (cnum));

Query OK, 0 rows affected (0.06 sec)

mysql> create table if not exists customer (cnum int not null, cname varchar(30

) not null, city varchar(30) not null, rating int not null, snum int not null, p

rimary key (cnum));

Query OK, 0 rows affected (0.06 sec)

mysql> drop table customer;

Query OK, 0 rows affected (0.03 sec)

mysql> show tables;

Empty set (0.00 sec)

mysql> create table if not exists salespeople (snum int not null, sname varchar

(30) not null, city varchar(30) not null, comm decimal(4,2) not null, primary key (snum));

Query OK, 0 rows affected (0.09 sec)

mysql> insert into salespeople values (1001, 'peel', 'landon',0.12);

Query OK, 1 row affected (0.03 sec)

mysql> insert into salespeople values (1002, 'serres', 'san jose',0.13);

Query OK, 1 row affected (0.03 sec)

mysql> insert into salespeople values (1004, 'motika', 'landon',0.11);

Query OK, 1 row affected (0.04 sec)

mysql> insert into salespeople values (1007, 'rifkin', 'barcelona',0.15);

Query OK, 1 row affected (0.03 sec)

mysql> insert into salespeople values (1003, 'axelrod', 'new york',0.10);

Query OK, 1 row affected (0.08 sec)

mysql> insert into salespeople values (1005, 'fran', 'landon',0.26);

Query OK, 1 row affected (0.03 sec)

mysql> select \* from salespeople;

+------+---------+-----------+------+

| snum | sname | city | comm |

+------+---------+-----------+------+

| 1001 | peel | landon | 0.12 |

| 1002 | serres | san jose | 0.13 |

| 1003 | axelrod | new york | 0.10 |

| 1004 | motika | landon | 0.11 |

| 1005 | fran | landon | 0.26 |

| 1007 | rifkin | barcelona | 0.15 |

+------+---------+-----------+------+

6 rows in set (0.00 sec)

mysql> create table if not exists customer (cnum int not null, cname varchar(30) not null, city varchar(30) not null, rating int not null, snum int not null, primary key (cnum), foreign key (snum) references salespeople(snum));

Query OK, 0 rows affected (0.08 sec)

mysql> show tables;

+------------------+

| Tables\_in\_retail |

+------------------+

| customer |

| salespeople |

+------------------+

2 rows in set (0.00 sec)

mysql> insert into customer values (2001, 'hoffman', 'landon', 100, 1001);

Query OK, 1 row affected (0.04 sec)

mysql> insert into customer values (2002, 'giovanni', 'rome', 200, 1003);

Query OK, 1 row affected (0.07 sec)

mysql> insert into customer values (2003, 'liu', 'san jose', 200, 1002);

Query OK, 1 row affected (0.02 sec)

mysql> insert into customer values (2004, 'grass', 'berlin', 300, 1002);

Query OK, 1 row affected (0.03 sec)

mysql> insert into customer values (2006, 'clemens', 'landon', 100, 1001);

Query OK, 1 row affected (0.07 sec)

mysql> insert into customer values (2008, 'cisneros', 'san jose', 300, 1007);

Query OK, 1 row affected (0.03 sec)

mysql> insert into customer values (2007, 'pereira', 'rome', 100, 1004);

Query OK, 1 row affected (0.02 sec)

mysql> select \* from customer;

+------+----------+----------+--------+------+

| cnum | cname | city | rating | snum |

+------+----------+----------+--------+------+

| 2001 | hoffman | landon | 100 | 1001 |

| 2002 | giovanni | rome | 200 | 1003 |

| 2003 | liu | san jose | 200 | 1002 |

| 2004 | grass | berlin | 300 | 1002 |

| 2006 | clemens | landon | 100 | 1001 |

| 2007 | pereira | rome | 100 | 1004 |

| 2008 | cisneros | san jose | 300 | 1007 |

+------+----------+----------+--------+------+

7 rows in set (0.00 sec)

mysql> create table if not exists orders (onum int not null, amt decimal(7,2) not null, odate varchar(30) not null, cnum int not null, primary key (onum), foreign key (cnum) references customer(cnum));

Query OK, 0 rows affected (0.11 sec)

mysql> show tables;

+------------------+

| Tables\_in\_retail |

+------------------+

| customer |

| orders |

| salespeople |

+------------------+

3 rows in set (0.00 sec)

mysql> create table if not exists orders (onum int not null, amt decimal(7,2) n

ot null, odate varchar(30) not null, cnum int not null, primary key (onum), fore

ign key (cnum) references customer(cnum));

Query OK, 0 rows affected (0.11 sec)

mysql> show tables;

+------------------+

| Tables\_in\_retail |

+------------------+

| customer |

| orders |

| salespeople |

+------------------+

3 rows in set (0.00 sec)

mysql> insert into orders values (3001, 18.89, '1996-03-10',2008);

Query OK, 1 row affected (0.03 sec)

mysql> insert into orders values (3003, 767.19, '1996-03-10',2001);

Query OK, 1 row affected (0.03 sec)

mysql> insert into orders values (3002, 1900.10, '1996-03-10',2007);

Query OK, 1 row affected (0.04 sec)

mysql> insert into orders values (3005, 5160.45, '1996-03-10',2003);

Query OK, 1 row affected (0.04 sec)

mysql> insert into orders values (3006, 1098.16, '1996-03-10',2008);

Query OK, 1 row affected (0.03 sec)

mysql> insert into orders values (3009, 1713.23, '1996-04-10',2002);

Query OK, 1 row affected (0.02 sec)

mysql> insert into orders values (3007, 75.75, '1996-04-10',2002);

Query OK, 1 row affected (0.07 sec)

mysql> insert into orders values (3008, 4723.00, '1996-05-10',2006);

Query OK, 1 row affected (0.04 sec)

mysql> insert into orders values (3010, 1309.95, '1996-06-10',2004);

Query OK, 1 row affected (0.03 sec)

mysql> insert into orders values (3011, 9891.88, '1996-06-10',2006);

Query OK, 1 row affected (0.03 sec)

mysql> select \* from orders;

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 |

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3003 | 767.19 | 1996-03-10 | 2001 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3007 | 75.75 | 1996-04-10 | 2002 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

+------+---------+------------+------+

10 rows in set (0.00 sec)

mysql> describe salespeople;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| snum | int(11) | NO | PRI | NULL | |

| sname | varchar(30) | NO | | NULL | |

| city | varchar(30) | NO | | NULL | |

| comm | decimal(4,2) | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

mysql> describe customer;

+--------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+-------+

| cnum | int(11) | NO | PRI | NULL | |

| cname | varchar(30) | NO | | NULL | |

| city | varchar(30) | NO | | NULL | |

| rating | int(11) | NO | | NULL | |

| snum | int(11) | NO | MUL | NULL | |

+--------+-------------+------+-----+---------+-------+

5 rows in set (0.06 sec)

mysql> describe orders;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| onum | int(11) | NO | PRI | NULL | |

| amt | decimal(7,2) | NO | | NULL | |

| odate | varchar(30) | NO | | NULL | |

| cnum | int(11) | NO | MUL | NULL | |

+-------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

**Queries**

1. List all the columns of the Salespeople table.

Ans:-

mysql> describe salespeople;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| snum | int(11) | NO | PRI | NULL | |

| sname | varchar(30) | NO | | NULL | |

| city | varchar(30) | NO | | NULL | |

| comm | decimal(4,2) | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

1. List all customers with a rating of 100.

Ans:-

mysql> select \* from customer where rating = 100;

+------+---------+--------+--------+------+

| cnum | cname | city | rating | snum |

+------+---------+--------+--------+------+

| 2001 | hoffman | landon | 100 | 1001 |

| 2006 | clemens | landon | 100 | 1001 |

| 2007 | pereira | rome | 100 | 1004 |

+------+---------+--------+--------+------+

3 rows in set (0.00 sec)

OR

mysql> select cname from customer where rating = 100;

+---------+

| cname |

+---------+

| hoffman |

| clemens |

| pereira |

+---------+

3 rows in set (0.00 sec)

1. Find all records in the Customer table with NULL values in the city column.

Ans:-

mysql> select \* from customer where city is NULL;

Empty set (0.00 sec)

OR

mysql> select \* from customer where city = NULL;

Empty set (0.00 sec)

1. Find the largest order taken by each salesperson on each date.

Ans:-

mysql> Select a.odate, b.snum, max(a.amt) from orders a, salespeople b group by

a.odate, b.snum order by a.odate,b.snum;

+------------+------+------------+

| odate | snum | max(a.amt) |

+------------+------+------------+

| 1996-03-10 | 1001 | 5160.45 |

| 1996-03-10 | 1002 | 5160.45 |

| 1996-03-10 | 1003 | 5160.45 |

| 1996-03-10 | 1004 | 5160.45 |

| 1996-03-10 | 1005 | 5160.45 |

| 1996-03-10 | 1007 | 5160.45 |

| 1996-04-10 | 1001 | 1713.23 |

| 1996-04-10 | 1002 | 1713.23 |

| 1996-04-10 | 1003 | 1713.23 |

| 1996-04-10 | 1004 | 1713.23 |

| 1996-04-10 | 1005 | 1713.23 |

| 1996-04-10 | 1007 | 1713.23 |

| 1996-05-10 | 1001 | 4723.00 |

| 1996-05-10 | 1002 | 4723.00 |

| 1996-05-10 | 1003 | 4723.00 |

| 1996-05-10 | 1004 | 4723.00 |

| 1996-05-10 | 1005 | 4723.00 |

| 1996-05-10 | 1007 | 4723.00 |

| 1996-06-10 | 1001 | 9891.88 |

| 1996-06-10 | 1002 | 9891.88 |

| 1996-06-10 | 1003 | 9891.88 |

| 1996-06-10 | 1004 | 9891.88 |

| 1996-06-10 | 1005 | 9891.88 |

| 1996-06-10 | 1007 | 9891.88 |

+------------+------+------------+

24 rows in set (0.00 sec)

OR

mysql> Select distinct a.odate, b.snum, max(a.amt) from orders a, salespeople b

group by a.odate, b.snum order by a.odate,b.snum;

+------------+------+------------+

| odate | snum | max(a.amt) |

+------------+------+------------+

| 1996-03-10 | 1001 | 5160.45 |

| 1996-03-10 | 1002 | 5160.45 |

| 1996-03-10 | 1003 | 5160.45 |

| 1996-03-10 | 1004 | 5160.45 |

| 1996-03-10 | 1005 | 5160.45 |

| 1996-03-10 | 1007 | 5160.45 |

| 1996-04-10 | 1001 | 1713.23 |

| 1996-04-10 | 1002 | 1713.23 |

| 1996-04-10 | 1003 | 1713.23 |

| 1996-04-10 | 1004 | 1713.23 |

| 1996-04-10 | 1005 | 1713.23 |

| 1996-04-10 | 1007 | 1713.23 |

| 1996-05-10 | 1001 | 4723.00 |

| 1996-05-10 | 1002 | 4723.00 |

| 1996-05-10 | 1003 | 4723.00 |

| 1996-05-10 | 1004 | 4723.00 |

| 1996-05-10 | 1005 | 4723.00 |

| 1996-05-10 | 1007 | 4723.00 |

| 1996-06-10 | 1001 | 9891.88 |

| 1996-06-10 | 1002 | 9891.88 |

| 1996-06-10 | 1003 | 9891.88 |

| 1996-06-10 | 1004 | 9891.88 |

| 1996-06-10 | 1005 | 9891.88 |

| 1996-06-10 | 1007 | 9891.88 |

+------------+------+------------+

24 rows in set (0.00 sec)

1. Arrange the Orders table by descending customer number.

Ans:

mysql> select \* from orders ORDER BY cnum desc;

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3007 | 75.75 | 1996-04-10 | 2002 |

| 3003 | 767.19 | 1996-03-10 | 2001 |

+------+---------+------------+------+

10 rows in set (0.00 sec)

1. Find which salespeople currently have orders in the Orders table.

Ans:-

mysql> Select distinct a.onum, a.amt, a.odate, a.cnum, b.snum from orders a, cu

stomer b where a.cnum=b.cnum;

+------+---------+------------+------+------+

| onum | amt | odate | cnum | snum |

+------+---------+------------+------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 | 1007 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 1004 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 1001 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 1002 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 1007 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 1003 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 1001 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 1003 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 1002 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 1001 |

+------+---------+------------+------+------+

10 rows in set (0.00 sec)

1. List names of all customers matched with the salespeople serving them.

Ans:-

mysql> Select distinct b.cname, c.sname from salespeople c, customer b, orders a

where a.cnum=b.cnum;

+----------+---------+

| cname | sname |

+----------+---------+

| cisneros | peel |

| cisneros | serres |

| cisneros | axelrod |

| cisneros | motika |

| cisneros | fran |

| cisneros | rifkin |

| pereira | peel |

| pereira | serres |

| pereira | axelrod |

| pereira | motika |

| pereira | fran |

| pereira | rifkin |

| hoffman | peel |

| hoffman | serres |

| hoffman | axelrod |

| hoffman | motika |

| hoffman | fran |

| hoffman | rifkin |

| liu | peel |

| liu | serres |

| liu | axelrod |

| liu | motika |

| liu | fran |

| liu | rifkin |

| giovanni | peel |

| giovanni | serres |

| giovanni | axelrod |

| giovanni | motika |

| giovanni | fran |

| giovanni | rifkin |

| clemens | peel |

| clemens | serres |

| clemens | axelrod |

| clemens | motika |

| clemens | fran |

| clemens | rifkin |

| grass | peel |

| grass | serres |

| grass | axelrod |

| grass | motika |

| grass | fran |

| grass | rifkin |

+----------+---------+

42 rows in set (0.00 sec)

1. Find the names and numbers of all salespeople who had more than one customer.

Ans:-

mysql> Select sname, snum from salespeople where snum in ( select snum from cust

omer group by snum having count(snum) > 1 );

+--------+------+

| sname | snum |

+--------+------+

| peel | 1001 |

| serres | 1002 |

+--------+------+

2 rows in set (0.12 sec)

1. Count the orders of each of the salespeople and output the results in descending order.

Ans:-

mysql> Select a.sname, count(b.onum) from salespeople a, orders b group by a.sna

me order by count(b.onum);

+---------+---------------+

| sname | count(b.onum) |

+---------+---------------+

| fran | 10 |

| axelrod | 10 |

| peel | 10 |

| rifkin | 10 |

| motika | 10 |

| serres | 10 |

+---------+---------------+

6 rows in set (0.00 sec)

OR (datewise)

/\* mysql> Select odate, count(onum) from orders group by odate order by count(onum)

;

+------------+-------------+

| odate | count(onum) |

+------------+-------------+

| 1996-05-10 | 1 |

| 1996-06-10 | 2 |

| 1996-04-10 | 2 |

| 1996-03-10 | 5 |

+------------+-------------+

4 rows in set (0.00 sec) \*/

1. List the Customer table if and only if one or more of the customers in the Customer table are located in San Jose.

Ans:-

mysql> select count(\*) from customer where city = 'San Jose';

+----------+

| count(\*) |

+----------+

| 2 |

+----------+

1 row in set (0.00 sec)

mysql> Select \* from customer where 2 < (select count(\*) from customer where c

ity = 'San Jose');

Empty set (0.00 sec)

OR

mysql> Select \* from customer;

+------+----------+----------+--------+------+

| cnum | cname | city | rating | snum |

+------+----------+----------+--------+------+

| 2001 | hoffman | landon | 100 | 1001 |

| 2002 | giovanni | rome | 200 | 1003 |

| 2003 | liu | san jose | 200 | 1002 |

| 2004 | grass | berlin | 300 | 1002 |

| 2006 | clemens | landon | 100 | 1001 |

| 2007 | pereira | rome | 100 | 1004 |

| 2008 | cisneros | san jose | 300 | 1007 |

+------+----------+----------+--------+------+

7 rows in set (0.00 sec)

mysql> select \* from customer where city = 'San Jose';

+------+----------+----------+--------+------+

| cnum | cname | city | rating | snum |

+------+----------+----------+--------+------+

| 2003 | liu | san jose | 200 | 1002 |

| 2008 | cisneros | san jose | 300 | 1007 |

+------+----------+----------+--------+------+

2 rows in set (0.00 sec)

1. Match salespeople to customers according to what city they lived in.

Ans:-

mysql> Select snum, sname from salespeople where exists ( select cnum from cus

tomer where salespeople.city = customer.city and salespeople.snum != customer.sn

um);

+------+--------+

| snum | sname |

+------+--------+

| 1002 | serres |

| 1004 | motika |

| 1005 | fran |

+------+--------+

3 rows in set (0.02 sec)

OR

mysql> Select snum, sname from salespeople where exists ( select cnum from cus

tomer where salespeople.city = customer.city);

+------+--------+

| snum | sname |

+------+--------+

| 1001 | peel |

| 1002 | serres |

| 1004 | motika |

| 1005 | fran |

+------+--------+

4 rows in set (0.00 sec)

OR

mysql> Select snum, sname from salespeople where exists ( select cnum,cname from

customer where salespeople.city = customer.city);

+------+--------+

| snum | sname |

+------+--------+

| 1001 | peel |

| 1002 | serres |

| 1004 | motika |

| 1005 | fran |

+------+--------+

4 rows in set (0.00 sec)

OR

mysql> Select sname, customer.cname from salespeople, customer where exists ( s

elect cnum from customer where salespeople.city = customer.city);

+--------+----------+

| sname | cname |

+--------+----------+

| peel | hoffman |

| serres | hoffman |

| motika | hoffman |

| fran | hoffman |

| peel | giovanni |

| serres | giovanni |

| motika | giovanni |

| fran | giovanni |

| peel | liu |

| serres | liu |

| motika | liu |

| fran | liu |

| peel | grass |

| serres | grass |

| motika | grass |

| fran | grass |

| peel | clemens |

| serres | clemens |

| motika | clemens |

| fran | clemens |

| peel | pereira |

| serres | pereira |

| motika | pereira |

| fran | pereira |

| peel | cisneros |

| serres | cisneros |

| motika | cisneros |

| fran | cisneros |

+--------+----------+

28 rows in set (0.00 sec)

1. Find the largest order taken by each salesperson.

Ans:

mysql> Select a.odate, b.snum, max(a.amt) from orders a, salespeople b group b

y a.odate, b.snum order by a.odate,b.snum;

+------------+------+------------+

| odate | snum | max(a.amt) |

+------------+------+------------+

| 1996-03-10 | 1001 | 5160.45 |

| 1996-03-10 | 1002 | 5160.45 |

| 1996-03-10 | 1003 | 5160.45 |

| 1996-03-10 | 1004 | 5160.45 |

| 1996-03-10 | 1005 | 5160.45 |

| 1996-03-10 | 1007 | 5160.45 |

| 1996-04-10 | 1001 | 1713.23 |

| 1996-04-10 | 1002 | 1713.23 |

| 1996-04-10 | 1003 | 1713.23 |

| 1996-04-10 | 1004 | 1713.23 |

| 1996-04-10 | 1005 | 1713.23 |

| 1996-04-10 | 1007 | 1713.23 |

| 1996-05-10 | 1001 | 4723.00 |

| 1996-05-10 | 1002 | 4723.00 |

| 1996-05-10 | 1003 | 4723.00 |

| 1996-05-10 | 1004 | 4723.00 |

| 1996-05-10 | 1005 | 4723.00 |

| 1996-05-10 | 1007 | 4723.00 |

| 1996-06-10 | 1001 | 9891.88 |

| 1996-06-10 | 1002 | 9891.88 |

| 1996-06-10 | 1003 | 9891.88 |

| 1996-06-10 | 1004 | 9891.88 |

| 1996-06-10 | 1005 | 9891.88 |

| 1996-06-10 | 1007 | 9891.88 |

+------------+------+------------+

24 rows in set (0.00 sec)

1. Find customers in San Jose who have a rating above 200.

Ans:

mysql> Select cname from customer where rating > 200;

+----------+

| cname |

+----------+

| grass |

| cisneros |

+----------+

2 rows in set (0.00 sec)

1. List the names and commissions of all salespeople in London.

Ans:

mysql> Select sname, comm from salespeople where city = 'landon';

+--------+------+

| sname | comm |

+--------+------+

| peel | 0.12 |

| motika | 0.11 |

| fran | 0.26 |

+--------+------+

3 rows in set (0.00 sec)

1. List all the orders of salesperson Motika from the Orders table.

Ans:

mysql> Select a.onum from orders a, salespeople b where b.sname='motika';

+------+

| onum |

+------+

| 3001 |

| 3002 |

| 3003 |

| 3005 |

| 3006 |

| 3007 |

| 3008 |

| 3009 |

| 3010 |

| 3011 |

+------+

10 rows in set (0.00 sec)

1. Find all customers with orders on October 3.

Ans:

mysql> select b.cname from customer b, orders a where b.cnum=a.cnum and a.odate

= '1996-03-10';

+----------+

| cname |

+----------+

| cisneros |

| pereira |

| hoffman |

| liu |

| cisneros |

+----------+

5 rows in set (0.00 sec)

OR

mysql> select \* from customer, orders a where a.odate= '1996-03-10';

+------+----------+----------+--------+------+------+---------+------------+----

--+

| cnum | cname | city | rating | snum | onum | amt | odate | cnu

m |

+------+----------+----------+--------+------+------+---------+------------+----

--+

| 2001 | hoffman | landon | 300 | 1002 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2002 | giovanni | rome | 200 | 1003 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2003 | liu | san jose | 200 | 1002 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2004 | grass | berlin | 300 | 1002 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2006 | clemens | landon | 100 | 1001 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2007 | pereira | rome | 100 | 1004 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2008 | cisneros | san jose | 300 | 1007 | 3001 | 18.89 | 1996-03-10 | 200

8 |

| 2001 | hoffman | landon | 300 | 1002 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2002 | giovanni | rome | 200 | 1003 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2003 | liu | san jose | 200 | 1002 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2004 | grass | berlin | 300 | 1002 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2006 | clemens | landon | 100 | 1001 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2007 | pereira | rome | 100 | 1004 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2008 | cisneros | san jose | 300 | 1007 | 3002 | 1900.10 | 1996-03-10 | 200

7 |

| 2001 | hoffman | landon | 300 | 1002 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2002 | giovanni | rome | 200 | 1003 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2003 | liu | san jose | 200 | 1002 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2004 | grass | berlin | 300 | 1002 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2006 | clemens | landon | 100 | 1001 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2007 | pereira | rome | 100 | 1004 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2008 | cisneros | san jose | 300 | 1007 | 3003 | 767.19 | 1996-03-10 | 200

1 |

| 2001 | hoffman | landon | 300 | 1002 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2002 | giovanni | rome | 200 | 1003 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2003 | liu | san jose | 200 | 1002 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2004 | grass | berlin | 300 | 1002 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2006 | clemens | landon | 100 | 1001 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2007 | pereira | rome | 100 | 1004 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2008 | cisneros | san jose | 300 | 1007 | 3005 | 5160.45 | 1996-03-10 | 200

3 |

| 2001 | hoffman | landon | 300 | 1002 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2002 | giovanni | rome | 200 | 1003 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2003 | liu | san jose | 200 | 1002 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2004 | grass | berlin | 300 | 1002 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2006 | clemens | landon | 100 | 1001 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2007 | pereira | rome | 100 | 1004 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

| 2008 | cisneros | san jose | 300 | 1007 | 3006 | 1098.16 | 1996-03-10 | 200

8 |

+------+----------+----------+--------+------+------+---------+------------+----

--+

35 rows in set (0.00 sec)

1. Give the sums of the amounts from the Orders table, grouped by date, eliminating all those

dates where the SUM was not at least 2000.00 above the MAX amount.

Ans:

mysql> Select odate, sum(amt) from orders a group by odate having sum(amt) > ( s

elect max(amt) from orders b where a.odate = b.odate group by odate);

+------------+----------+

| odate | sum(amt) |

+------------+----------+

| 1996-03-10 | 8944.79 |

| 1996-04-10 | 1788.98 |

| 1996-06-10 | 11201.83 |

+------------+----------+

3 rows in set (0.00 sec)

18. Select all orders that had amounts that were greater than at least one of the orders from

October 6.

Ans:

mysql> select \* from orders where amt> (select min(amt) from orders where odate > ("1996-06-10"));

Empty set (0.00 sec)

19. Write a query that uses the EXISTS operator to extract all salespeople who have customers

with a rating of 300.

Ans:

mysql> select a.snum, b.sname from customer a, salespeople b where EXISTS (selec

t \* from customer where rating = 300) and rating = 300 and a.snum=b.snum;

+------+--------+

| snum | sname |

+------+--------+

| 1002 | serres |

| 1002 | serres |

| 1007 | rifkin |

+------+--------+

3 rows in set (0.00 sec)

20. Find all pairs of customers having the same rating.

Ans;

mysql> Select a.cname, b.cname, a.rating from customer a, customer b where a.rating = b.rating and a.cnum != b.cnum;

+----------+----------+--------+

| cname | cname | rating |

+----------+----------+--------+

| grass | hoffman | 300 |

| cisneros | hoffman | 300 |

| liu | giovanni | 200 |

| giovanni | liu | 200 |

| hoffman | grass | 300 |

| cisneros | grass | 300 |

| pereira | clemens | 100 |

| clemens | pereira | 100 |

| hoffman | cisneros | 300 |

| grass | cisneros | 300 |

+----------+----------+--------+

10 rows in set (0.00 sec)

21. Find all customers whose CNUM is 1000 above the SNUM of Serres.

Ans:

mysql> Select cnum, cname from customer where cnum > ( select snum+1000 from sal

espeople where sname = 'Serres');

+------+----------+

| cnum | cname |

+------+----------+

| 2003 | liu |

| 2004 | grass |

| 2006 | clemens |

| 2007 | pereira |

| 2008 | cisneros |

+------+----------+

5 rows in set (0.03 sec)

22. Give the salespeople’s commissions as percentages instead of decimal numbers.

Ans:

mysql> select (comm\*100) as percent from salespeople;

+---------+

| percent |

+---------+

| 12.00 |

| 13.00 |

| 10.00 |

| 11.00 |

| 26.00 |

| 15.00 |

+---------+

6 rows in set (0.00 sec)

23. Find the largest order taken by each salesperson on each date, eliminating those MAX orders

which are less than $3000.00 in value.

Ans:

mysql> select a.onum, max(a.amt), a.odate, a.cnum, b.snum from orders a, custome

r b where a.cnum=b.cnum group by snum, odate having max(a.amt) > 3000;

+------+------------+------------+------+------+

| onum | max(a.amt) | odate | cnum | snum |

+------+------------+------------+------+------+

| 3008 | 4723.00 | 1996-05-10 | 2006 | 1001 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 1001 |

| 3003 | 5160.45 | 1996-03-10 | 2001 | 1002 |

+------+------------+------------+------+------+

3 rows in set (0.00 sec)

24. List the largest orders for October 3, for each salesperson.

Ans:

mysql> select max(amt) from orders where odate='1996-03-10' ;

+----------+

| max(amt) |

+----------+

| 5160.45 |

+----------+

1 row in set (0.00 sec)

25. Find all customers located in cities where Serres (SNUM 1002) has customers.

Ans;

mysql> select cname from customer where city = (select city from customer, sales

people where customer.snum=salespeople.snum and sname='serres');

26. Select all customers with a rating above 200.00.

Ans:

mysql> select cname, cnum from customer where rating > 200;

+----------+------+

| cname | cnum |

+----------+------+

| hoffman | 2001 |

| grass | 2004 |

| cisneros | 2008 |

+----------+------+

3 rows in set (0.00 sec)

27. Count the number of salespeople currently listing orders in the Orders table.

Ans:

mysql> select count(distinct b.snum) from orders, salespeople b;

+------------------------+

| count(distinct b.snum) |

+------------------------+

| 6 |

+------------------------+

1 row in set (0.00 sec)

mysql>

28. Write a query that produces all customers serviced by salespeople with a commission above

12%. Output the customer’s name and the salesperson’s rate of commission.

Ans:

mysql> select cname, sname,comm from customer, salespeople where comm>0.12 and c

ustomer.snum = salespeople.snum;

+----------+--------+------+

| cname | sname | comm |

+----------+--------+------+

| hoffman | serres | 0.13 |

| liu | serres | 0.13 |

| grass | serres | 0.13 |

| cisneros | rifkin | 0.15 |

+----------+--------+------+

4 rows in set (0.00 sec)

29. Find salespeople who have multiple customers.

Ans:

mysql> select snum from customer group by snum having count(\*)>1;

+------+

| snum |

+------+

| 1002 |

+------+

1 row in set (0.00 sec)

mysql>

30. Find salespeople with customers located in their city.

Ans;

mysql> select a.cname, a.city, b.sname from customer a, salespeople b where a.s

num=a.snum and a.city = b.city;

+----------+----------+--------+

| cname | city | sname |

+----------+----------+--------+

| hoffman | landon | peel |

| hoffman | landon | motika |

| hoffman | landon | fran |

| liu | san jose | serres |

| clemens | landon | peel |

| clemens | landon | motika |

| clemens | landon | fran |

| cisneros | san jose | serres |

+----------+----------+--------+

8 rows in set (0.00 sec)

31. Find all salespeople whose name starts with ‘P’ and the fourth character is ‘l’.

Ans:

mysql> select \* from salespeople where substring(sname,1,1) ='p' and substring(s

name, 4,1) = 'l';

+------+-------+--------+------+

| snum | sname | city | comm |

+------+-------+--------+------+

| 1001 | peel | landon | 0.12 |

+------+-------+--------+------+

1 row in set (0.00 sec)

32. Write a query that uses a subquery to obtain all orders for the customer named Cisneros.

Assume you do not know his customer number.

Ans:

mysql> select \* from orders where cnum = (select cnum from customer where cname=

'cisneros');

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

+------+---------+------------+------+

2 rows in set (0.00 sec)

33. Find the largest orders for Serres and Rifkin.

Ans;

mysql> select b.snum, c.sname, max(a.amt) from orders a, customer b, salespeople

c where a.cnum= b.cnum and b.snum=c.snum and (sname ='rifkin' or sname='serres'

) group by b.snum;

+------+--------+------------+

| snum | sname | max(a.amt) |

+------+--------+------------+

| 1002 | serres | 5160.45 |

| 1007 | rifkin | 1098.16 |

+------+--------+------------+

2 rows in set (0.00 sec)

34. Extract the Salespeople table in the following order : SNUM, SNAME, COMMISSION, CITY.

Ans:

mysql> select snum,sname, comm, city from salespeople;

+------+---------+------+-----------+

| snum | sname | comm | city |

+------+---------+------+-----------+

| 1001 | peel | 0.12 | landon |

| 1002 | serres | 0.13 | san jose |

| 1003 | axelrod | 0.10 | new york |

| 1004 | motika | 0.11 | landon |

| 1005 | fran | 0.26 | landon |

| 1007 | rifkin | 0.15 | barcelona |

+------+---------+------+-----------+

6 rows in set (0.00 sec)

35. Select all customers whose names fall in between ‘A’ and ‘G’ alphabetical range.

Ans;

mysql> select \* from customer where substring(cname,1,1) in ("A","B","C","D","E"

,"F","G");

+------+----------+----------+--------+------+

| cnum | cname | city | rating | snum |

+------+----------+----------+--------+------+

| 2002 | giovanni | rome | 200 | 1003 |

| 2004 | grass | berlin | 300 | 1002 |

| 2006 | clemens | landon | 100 | 1001 |

| 2008 | cisneros | san jose | 300 | 1007 |

+------+----------+----------+--------+------+

4 rows in set (0.08 sec)

36. Select all the possible combinations of customers that you can assign.

Ans;

Qtsn not complete

37. Select all orders that are greater than the average for October 4.

Ans;

mysql> select \* from orders where amt > (select avg(amt) from orders where odate ='1996-04-10');

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

+------+---------+------------+------+

7 rows in set (0.00 sec)

38. Write a select command using a corelated subquery that selects the names and numbers of all

customers with ratings equal to the maximum for their city.

Ans;

mysql> select a.cname, a.city, a.rating from customer a, (select city, max(rating) as maxrating from customer group by city) b where a.rating=b.maxrating and a

.city=b.city;

+----------+----------+--------+

| cname | city | rating |

+----------+----------+--------+

| hoffman | landon | 300 |

| giovanni | rome | 200 |

| grass | berlin | 300 |

| cisneros | san jose | 300 |

+----------+----------+--------+

4 rows in set (0.00 sec)

39. Write a query that totals the orders for each day and places the results in descending order.

Ans:

mysql> select odate, count(onum) from orders group by odate order by count(onum)

;

+------------+-------------+

| odate | count(onum) |

+------------+-------------+

| 1996-05-10 | 1 |

| 1996-06-10 | 2 |

| 1996-04-10 | 2 |

| 1996-03-10 | 5 |

+------------+-------------+

4 rows in set (0.00 sec)

40. Write a select command that produces the rating followed by the name of each customer in

San Jose.

Ans:

mysql> select cname, rating from customer where city='san jose';

+----------+--------+

| cname | rating |

+----------+--------+

| liu | 200 |

| cisneros | 300 |

+----------+--------+

2 rows in set (0.00 sec)

41. Find all orders with amounts smaller than any amount for a customer in San Jose.

Ans:

mysql> select onum, amt from orders where amt < any (select amt from orders, cus

tomer where city ='san jose' and orders.cnum = customer.cnum);

+------+---------+

| onum | amt |

+------+---------+

| 3001 | 18.89 |

| 3002 | 1900.10 |

| 3003 | 767.19 |

| 3006 | 1098.16 |

| 3007 | 75.75 |

| 3008 | 4723.00 |

| 3009 | 1713.23 |

| 3010 | 1309.95 |

+------+---------+

8 rows in set (0.00 sec)

42. Find all orders with above average amounts for their customers.

Ans:

mysql> select onum, cnum, amt from orders a where amt > (select avg(amt) from or

ders b where a.cnum = b.cnum group by cnum);

+------+------+---------+

| onum | cnum | amt |

+------+------+---------+

| 3006 | 2008 | 1098.16 |

| 3009 | 2002 | 1713.23 |

| 3011 | 2006 | 9891.88 |

+------+------+---------+

3 rows in set (0.00 sec)

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

Ans:

mysql> select city,max(rating) from customer group by city;

+----------+-------------+

| city | max(rating) |

+----------+-------------+

| berlin | 300 |

| landon | 300 |

| rome | 200 |

| san jose | 300 |

+----------+-------------+

4 rows in set (0.00 sec)

44. Write a query that calculates the amount of the salesperson’s commission on each order by a

customer with a rating above 100.00.

Ans;

mysql> select a.amt, a.cnum,b.cname,b.rating, b.snum,c.sname, c.comm, a.amt\*c.co

mm as commission from orders a, customer b, salespeople c where a.cnum=b.cnum an

d b.snum=c.snum and b.rating > 100;

+---------+------+----------+--------+------+---------+------+------------+

| amt | cnum | cname | rating | snum | sname | comm | commission |

+---------+------+----------+--------+------+---------+------+------------+

| 767.19 | 2001 | hoffman | 300 | 1002 | serres | 0.13 | 99.7347 |

| 5160.45 | 2003 | liu | 200 | 1002 | serres | 0.13 | 670.8585 |

| 1309.95 | 2004 | grass | 300 | 1002 | serres | 0.13 | 170.2935 |

| 75.75 | 2002 | giovanni | 200 | 1003 | axelrod | 0.10 | 7.5750 |

| 1713.23 | 2002 | giovanni | 200 | 1003 | axelrod | 0.10 | 171.3230 |

| 18.89 | 2008 | cisneros | 300 | 1007 | rifkin | 0.15 | 2.8335 |

| 1098.16 | 2008 | cisneros | 300 | 1007 | rifkin | 0.15 | 164.7240 |

+---------+------+----------+--------+------+---------+------+------------+

7 rows in set (0.00 sec)

45. Count the customers with ratings above San Jose’s average.

Ans:

mysql> select cnum, rating from customer where rating > (select avg(rating)from

customer where city ='san jose');

+------+--------+

| cnum | rating |

+------+--------+

| 2001 | 300 |

| 2004 | 300 |

| 2008 | 300 |

+------+--------+

3 rows in set (0.00 sec)

46. Write a query that produces all pairs of salespeople with themselves as well as duplicate rows

with the order reversed.

Ans:

mysql> select a.sname, b.sname from salespeople a, salespeople b where a.snum >

b.snum and a.city = b.city;

+--------+--------+

| sname | sname |

+--------+--------+

| motika | peel |

| fran | peel |

| fran | motika |

+--------+--------+

3 rows in set (0.00 sec)

47. Find all salespeople that are located in either Barcelona or London.

Ans:

mysql> select sname, city from salespeople where city in('barcelona','landon');

+--------+-----------+

| sname | city |

+--------+-----------+

| peel | landon |

| motika | landon |

| fran | landon |

| rifkin | barcelona |

+--------+-----------+

4 rows in set (0.00 sec)

48. Find all salespeople with only one customer.

Ans;

mysql> select a.sname, a.snum from salespeople a, (select snum, count(\*)as cust\_

count from customer group by snum having cust\_count = 1) b where a.snum=b.snum;

+---------+------+

| sname | snum |

+---------+------+

| peel | 1001 |

| axelrod | 1003 |

| motika | 1004 |

| rifkin | 1007 |

+---------+------+

4 rows in set (0.00 sec)

49. Write a query that joins the Customer table to itself to find all pairs of customers served by a

single salesperson.

Ans:

mysql> select cname from customer where snum in (select snum from customer group

by snum having count(snum) > 1);

+---------+

| cname |

+---------+

| hoffman |

| liu |

| grass |

+---------+

3 rows in set (0.00 sec)

50. Write a query that will give you all orders for more than $1000.00

Ans:

mysql> select \* from orders where amt > 1000;

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

+------+---------+------------+------+

7 rows in set (0.00 sec)

51. Write a query that lists each order number followed by the name of the customer who made

that order.

mysql> select onum,cname from orders, customer where orders.cnum = customer.cnum

;

+------+----------+

| onum | cname |

+------+----------+

| 3003 | hoffman |

| 3007 | giovanni |

| 3009 | giovanni |

| 3005 | liu |

| 3010 | grass |

| 3008 | clemens |

| 3011 | clemens |

| 3002 | pereira |

| 3001 | cisneros |

| 3006 | cisneros |

+------+----------+

10 rows in set (0.00 sec)

52. Write 2 queries that select all salespeople (by name and number) who have customers in their

cities who they do not service, one using a join and one a corelated subquery. Which solution

is more elegant?

mysql> select distinct sname from customer a, salespeople b where a.city= b.cit

y and a.snum != b.snum;

+--------+

| sname |

+--------+

| peel |

| motika |

| fran |

| serres |

+--------+

4 rows in set (0.00 sec)

53. Write a query that selects all customers whose ratings are equal to or greater than ANY (in the

SQL sense) of Serres’?

Ans:

mysql> select cname, sname from customer, salespeople where rating >= any(select

rating from customer where snum = (select snum from salespeople where sname = '

serres')) and sname != 'serres';

+----------+---------+

| cname | sname |

+----------+---------+

| hoffman | peel |

| hoffman | axelrod |

| hoffman | motika |

| hoffman | fran |

| hoffman | rifkin |

| giovanni | peel |

| giovanni | axelrod |

| giovanni | motika |

| giovanni | fran |

| giovanni | rifkin |

| liu | peel |

| liu | axelrod |

| liu | motika |

| liu | fran |

| liu | rifkin |

| grass | peel |

| grass | axelrod |

| grass | motika |

| grass | fran |

| grass | rifkin |

| cisneros | peel |

| cisneros | axelrod |

| cisneros | motika |

| cisneros | fran |

| cisneros | rifkin |

+----------+---------+

25 rows in set (0.00 sec)

54. Write 2 queries that will produce all orders taken on October 3 or October 4.

Ans:

mysql> select \* from orders where odate in('1996-03-10','1996-04-10');

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 |

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3003 | 767.19 | 1996-03-10 | 2001 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3007 | 75.75 | 1996-04-10 | 2002 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

+------+---------+------------+------+

7 rows in set (0.00 sec)

55. Write a query that produces all pairs of orders by a given customer. Name that customer and

eliminate duplicates.

Ans;

mysql> select c.cname, a.onum, b.onum from orders a,orders b, customer c where a

.cnum =b.cnum and a.onum > b.onum and c.cnum = a.cnum;

+----------+------+------+

| cname | onum | onum |

+----------+------+------+

| giovanni | 3009 | 3007 |

| clemens | 3011 | 3008 |

| cisneros | 3006 | 3001 |

+----------+------+------+

3 rows in set (0.00 sec)

56. Find only those customers whose ratings are higher than every customer in Rome.

Ans:

mysql> select a.cname from customer a where city ='rome' and rating > (select ma

x(rating) from customer where city != 'rome');

Empty set (0.00 sec)

57. Write a query on the Customers table whose output will exclude all customers with a rating <=

100.00, unless they are located in Rome.

Ans:

mysql> select cname from customer where rating <=100 or city ='rome';

+----------+

| cname |

+----------+

| giovanni |

| clemens |

| pereira |

+----------+

3 rows in set (0.00 sec)

58. Find all rows from the Customers table for which the salesperson number is 1001.

Ans;

mysql> select \* from salespeople where snum=1001;

+------+-------+--------+------+

| snum | sname | city | comm |

+------+-------+--------+------+

| 1001 | peel | landon | 0.12 |

+------+-------+--------+------+

1 row in set (0.00 sec)

59. Find the total amount in Orders for each salesperson for whom this total is greater than the

amount of the largest order in the table.

Ans;

mysql> select b.snum, sum(a.amt) from orders a, salespeople b group by b.snum ha

ving sum(a.amt) > (select max(amt) from orders);

+------+------------+

| snum | sum(a.amt) |

+------+------------+

| 1001 | 26658.60 |

| 1002 | 26658.60 |

| 1003 | 26658.60 |

| 1004 | 26658.60 |

| 1005 | 26658.60 |

| 1007 | 26658.60 |

+------+------------+

6 rows in set (0.00 sec)

60. Write a query that selects all orders save those with zeroes or NULLs in the amount field.

Ans;

mysql> select onum from orders where amt != 0 or amt is not NULL;

+------+

| onum |

+------+

| 3001 |

| 3002 |

| 3003 |

| 3005 |

| 3006 |

| 3007 |

| 3008 |

| 3009 |

| 3010 |

| 3011 |

+------+

10 rows in set (0.00 sec)

61. Produce all combinations of salespeople and customer names such that the former precedes

the latter alphabetically, and the latter has a rating of less than 200.

Ans;

mysql> select \* from customer a, salespeople b where a.snum=b.snum and snam

ame and rating < 200;

+------+---------+------+--------+------+------+--------+--------+------+

| cnum | cname | city | rating | snum | snum | sname | city | comm |

+------+---------+------+--------+------+------+--------+--------+------+

| 2007 | pereira | rome | 100 | 1004 | 1004 | motika | landon | 0.11 |

+------+---------+------+--------+------+------+--------+--------+------+

62. List all Salespeople’s names and the Commission they have earned.

Ans:

mysql> select sname, comm from salespeople;

+---------+------+

| sname | comm |

+---------+------+

| peel | 0.12 |

| serres | 0.13 |

| axelrod | 0.10 |

| motika | 0.11 |

| fran | 0.26 |

| rifkin | 0.15 |

+---------+------+

6 rows in set (0.00 sec)

63. Write a query that produces the names and cities of all customers with the same rating as

Hoffman. Write the query using Hoffman’s CNUM rather than his rating, so that it would still be

usable if his rating changed.

Ans:

mysql> select cname , city from customer where rating=(select rating from custom

er where cname = 'hoffman') and cname != 'hoffman';

+----------+----------+

| cname | city |

+----------+----------+

| grass | berlin |

| cisneros | san jose |

+----------+----------+

2 rows in set (0.00 sec)

64. Find all salespeople for whom there are customers that follow them in alphabetical order.

Ans:

mysql> select \* from customer a, salespeople b where a.snum=b.snum and sname < c

name;

+------+----------+------+--------+------+------+---------+----------+------+

| cnum | cname | city | rating | snum | snum | sname | city | comm |

+------+----------+------+--------+------+------+---------+----------+------+

| 2002 | giovanni | rome | 200 | 1003 | 1003 | axelrod | new york | 0.10 |

| 2007 | pereira | rome | 100 | 1004 | 1004 | motika | landon | 0.11 |

+------+----------+------+--------+------+------+---------+----------+------+

2 rows in set (0.00 sec)

65. Write a query that produces the names and ratings of all customers of all who have above

average orders.

Ans;

mysql> select max(b.cname), max(b.rating), a.cnum from orders a, customer b wher

e a.cnum = b.cnum group by a.cnum having count(a.cnum) > (select avg(count(cnum)

)from orders);

66. Find the SUM of all purchases from the Orders table.

Ans:

mysql> select sum(amt) from orders;

+----------+

| sum(amt) |

+----------+

| 26658.60 |

+----------+

1 row in set (0.00 sec)

67. Write a SELECT command that produces the order number, amount and date for all rows in

the order table.

Ans;

mysql> select onum,amt,odate from orders;

+------+---------+------------+

| onum | amt | odate |

+------+---------+------------+

| 3001 | 18.89 | 1996-03-10 |

| 3002 | 1900.10 | 1996-03-10 |

| 3003 | 767.19 | 1996-03-10 |

| 3005 | 5160.45 | 1996-03-10 |

| 3006 | 1098.16 | 1996-03-10 |

| 3007 | 75.75 | 1996-04-10 |

| 3008 | 4723.00 | 1996-05-10 |

| 3009 | 1713.23 | 1996-04-10 |

| 3010 | 1309.95 | 1996-06-10 |

| 3011 | 9891.88 | 1996-06-10 |

+------+---------+------------+

10 rows in set (0.00 sec)

68. Count the number of non NULL rating fields in the Customers table (including repeats).

Ans:

mysql> select count(rating) from customer where rating!= 'NULL';

+---------------+

| count(rating) |

+---------------+

| 7 |

+---------------+

1 row in set, 1 warning (0.00 sec)

69. Write a query that gives the names of both the salesperson and the customer for each order

after the order number.

Ans;

mysql> select onum, sname, cname from orders, customer, salespeople where orders

.cnum = customer.cnum and customer.snum=salespeople.snum;

+------+---------+----------+

| onum | sname | cname |

+------+---------+----------+

| 3008 | peel | clemens |

| 3011 | peel | clemens |

| 3003 | serres | hoffman |

| 3005 | serres | liu |

| 3010 | serres | grass |

| 3007 | axelrod | giovanni |

| 3009 | axelrod | giovanni |

| 3002 | motika | pereira |

| 3001 | rifkin | cisneros |

| 3006 | rifkin | cisneros |

+------+---------+----------+

10 rows in set (0.00 sec)

70. List the commissions of all salespeople servicing customers in London.

Ans;

mysql> select distinct customer.snum, orders.cnum from orders,customer where or

ders.cnum in (select cnum from customer where city ='landon');

+------+------+

| snum | cnum |

+------+------+

| 1001 | 2001 |

| 1002 | 2001 |

| 1003 | 2001 |

| 1004 | 2001 |

| 1007 | 2001 |

| 1001 | 2006 |

| 1002 | 2006 |

| 1003 | 2006 |

| 1004 | 2006 |

| 1007 | 2006 |

+------+------+

10 rows in set (0.00 sec)

71. Write a query using ANY or ALL that will find all salespeople who have no customers located in

their city.

Ans:

mysql> select \* from salespeople a, customer b where a.snum=b.snum and a.city !=

ALL (select city from customer c where a.snum=c.snum);

+------+---------+-----------+------+------+----------+----------+--------+-----

-+

| snum | sname | city | comm | cnum | cname | city | rating | snum

|

+------+---------+-----------+------+------+----------+----------+--------+-----

-+

| 1003 | axelrod | new york | 0.10 | 2002 | giovanni | rome | 200 | 1003

|

| 1004 | motika | landon | 0.11 | 2007 | pereira | rome | 100 | 1004

|

| 1007 | rifkin | barcelona | 0.15 | 2008 | cisneros | san jose | 300 | 1007

|

+------+---------+-----------+------+------+----------+----------+--------+-----

-+

3 rows in set (0.00 sec)

72. Write a query using the EXISTS operator that selects all salespeople with customers located in

their cities who are not assigned to them.

Ans:

mysql> select \* from customer a, salespeople b where EXISTS (Select \* from custo

mer c where c.snum=b.snum) and a.snum != b.snum and a.city=b.city;

+------+----------+----------+--------+------+------+--------+----------+------+

| cnum | cname | city | rating | snum | snum | sname | city | comm |

+------+----------+----------+--------+------+------+--------+----------+------+

| 2001 | hoffman | landon | 300 | 1002 | 1001 | peel | landon | 0.12 |

| 2001 | hoffman | landon | 300 | 1002 | 1004 | motika | landon | 0.11 |

| 2006 | clemens | landon | 100 | 1001 | 1004 | motika | landon | 0.11 |

| 2008 | cisneros | san jose | 300 | 1007 | 1002 | serres | san jose | 0.13 |

+------+----------+----------+--------+------+------+--------+----------+------+

4 rows in set (0.00 sec)

73. Write a query that selects all customers serviced by Peel or Motika. (Hint : The SNUM field

relates the two tables to one another.)

Ans:

Select cname from cust, orders where orders.cnum = cust.cnum and orders.snum in ( select snum from salespeople where sname in 'Peel','Motika'));

74. Count 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.)

75. Find all orders attributed to salespeople in London.(solved)

Ans:

mysql> select \* from orders,salespeople where salespeople.city='landon';

+------+---------+------------+------+------+--------+--------+------+

| onum | amt | odate | cnum | snum | sname | city | comm |

+------+---------+------------+------+------+--------+--------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 | 1001 | peel | landon | 0.12 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 1004 | motika | landon | 0.11 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 1005 | fran | landon | 0.26 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 1001 | peel | landon | 0.12 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 1004 | motika | landon | 0.11 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 1005 | fran | landon | 0.26 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 1001 | peel | landon | 0.12 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 1004 | motika | landon | 0.11 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 1005 | fran | landon | 0.26 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 1001 | peel | landon | 0.12 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 1004 | motika | landon | 0.11 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 1005 | fran | landon | 0.26 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 1001 | peel | landon | 0.12 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 1004 | motika | landon | 0.11 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 1005 | fran | landon | 0.26 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 1001 | peel | landon | 0.12 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 1004 | motika | landon | 0.11 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 1005 | fran | landon | 0.26 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 1001 | peel | landon | 0.12 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 1004 | motika | landon | 0.11 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 1005 | fran | landon | 0.26 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 1001 | peel | landon | 0.12 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 1004 | motika | landon | 0.11 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 1005 | fran | landon | 0.26 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 1001 | peel | landon | 0.12 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 1004 | motika | landon | 0.11 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 1005 | fran | landon | 0.26 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 1001 | peel | landon | 0.12 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 1004 | motika | landon | 0.11 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 1005 | fran | landon | 0.26 |

+------+---------+------------+------+------+--------+--------+------+

30 rows in set (0.00 sec)

76. Find all orders by customers not located in the same cities as their salespeople.

Ans:

mysql> select distinct a.cnum from orders a,salespeople b,customer where b.city

!= customer.city;

+------+

| cnum |

+------+

| 2008 |

| 2007 |

| 2001 |

| 2003 |

| 2002 |

| 2006 |

| 2004 |

+------+

7 rows in set (0.00 sec)

77. Find all salespeople who have customers with more than one current order.

Ans:

mysql> select b.snum, count(b.snum) from orders a, customer b group by b.snum ha

ving count(b.snum) > 1;

+------+---------------+

| snum | count(b.snum) |

+------+---------------+

| 1001 | 10 |

| 1002 | 30 |

| 1003 | 10 |

| 1004 | 10 |

| 1007 | 10 |

+------+---------------+

5 rows in set (0.00 sec)

78. Write a query that extracts from the Customers table every customer assigned to a

salesperson who currently has at least one other customer (besides the customer being

selected) with orders in the Orders table.

Ans:

mysql> select count(a.onum), a.cnum, b.snum, c.sname from orders a, customer b,

salespeople c where a.cnum=b.cnum and b.snum=c.snum group by a.cnum having count

(a.onum) > 1;

+---------------+------+------+---------+

| count(a.onum) | cnum | snum | sname |

+---------------+------+------+---------+

| 2 | 2002 | 1003 | axelrod |

| 2 | 2006 | 1001 | peel |

| 2 | 2008 | 1007 | rifkin |

+---------------+------+------+---------+

3 rows in set (0.00 sec)

79. Write a query that selects all customers whose names begin with ‘C’.

Ans:

mysql> select cname from customer where cname like 'C%';

+----------+

| cname |

+----------+

| clemens |

| cisneros |

+----------+

2 rows in set (0.00 sec)

80. Write a query on the Customers table that will find the highest rating in each city. Put the output

in this form : for the city (*city*) the highest rating is : (*rating*).

mysql> select \* from customer a, customer b where a.cnum!=b.cnum and a.rating =b

.rating;

+------+----------+----------+--------+------+------+----------+----------+-----

---+------+

| cnum | cname | city | rating | snum | cnum | cname | city | rati

ng | snum |

+------+----------+----------+--------+------+------+----------+----------+-----

---+------+

| 2004 | grass | berlin | 300 | 1002 | 2001 | hoffman | landon | 3

00 | 1002 |

| 2008 | cisneros | san jose | 300 | 1007 | 2001 | hoffman | landon | 3

00 | 1002 |

| 2003 | liu | san jose | 200 | 1002 | 2002 | giovanni | rome | 2

00 | 1003 |

| 2002 | giovanni | rome | 200 | 1003 | 2003 | liu | san jose | 2

00 | 1002 |

| 2001 | hoffman | landon | 300 | 1002 | 2004 | grass | berlin | 3

00 | 1002 |

| 2008 | cisneros | san jose | 300 | 1007 | 2004 | grass | berlin | 3

00 | 1002 |

| 2007 | pereira | rome | 100 | 1004 | 2006 | clemens | landon | 1

00 | 1001 |

| 2006 | clemens | landon | 100 | 1001 | 2007 | pereira | rome | 1

00 | 1004 |

| 2001 | hoffman | landon | 300 | 1002 | 2008 | cisneros | san jose | 3

00 | 1007 |

| 2004 | grass | berlin | 300 | 1002 | 2008 | cisneros | san jose | 3

00 | 1007 |

+------+----------+----------+--------+------+------+----------+----------+-----

---+------+

10 rows in set (0.00 sec)

81. Write a query that will produce the SNUM values of all salespeople with orders currently in the

Orders table (without any repeats).

Ans:

mysql> select distinct snum from salespeople, orders where onum !='NULL';

+------+

| snum |

+------+

| 1001 |

| 1002 |

| 1003 |

| 1004 |

| 1005 |

| 1007 |

+------+

6 rows in set, 3 warnings (0.00 sec)

82. Write a query that lists customers in descending order of rating. Output the rating field first,

followed by the customer’s names and numbers.

Ans:

mysql> select cname, cnum, rating from customer order by rating desc ;

+----------+------+--------+

| cname | cnum | rating |

+----------+------+--------+

| hoffman | 2001 | 300 |

| grass | 2004 | 300 |

| cisneros | 2008 | 300 |

| giovanni | 2002 | 200 |

| liu | 2003 | 200 |

| clemens | 2006 | 100 |

| pereira | 2007 | 100 |

+----------+------+--------+

7 rows in set (0.00 sec)

mysql>

83. Find the average commission for salespeople in London.

Ans;

mysql> select avg(comm) from salespeople where city ='landon';

+-----------+

| avg(comm) |

+-----------+

| 0.163333 |

+-----------+

1 row in set (0.00 sec)

84. Find all orders credited to the same salesperson who services Hoffman (CNUM 2001).

Ans:

mysql> select onum, sname, cname, amt from orders a, salespeople b, customer c where c.snum=b.snum c.snum=(select snum from orders where cnum=(select cnum from customer where cnum='2001'));

85. Find all salespeople whose commission is in between 0.10 and 0.12 (both inclusive).

Ans:

mysql> Select sname, comm from salespeople where comm > 0.10 and comm < 0.12;

+--------+------+

| sname | comm |

+--------+------+

| motika | 0.11 |

+--------+------+

1 row in set (0.00 sec)

86. Write a query that will give you the names and cities of all salespeople in London with a

commission above 0.10.

Ans:

mysql> select sname, city from salespeople where comm>0.10;

+--------+-----------+

| sname | city |

+--------+-----------+

| peel | landon |

| serres | san jose |

| motika | landon |

| fran | landon |

| rifkin | barcelona |

+--------+-----------+

5 rows in set (0.00 sec)

87. What will be the output from the following query?

SELECT \* FROM ORDERS where (amt < 1000 OR NOT (odate = 10/03/1996 AND cnum > 2003));

Ans:

mysql> SELECT \* FROM ORDERS where (amt < 1000 OR NOT (odate = 10/03/1996 AND cnu

m > 2003));

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3001 | 18.89 | 1996-03-10 | 2008 |

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3003 | 767.19 | 1996-03-10 | 2001 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3007 | 75.75 | 1996-04-10 | 2002 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

+------+---------+------------+------+

10 rows in set, 7 warnings (0.00 sec)

88. Write a query that selects each customer’s smallest order.

Ans:

mysql> select cnum, min(amt) from orders group by cnum;

+------+----------+

| cnum | min(amt) |

+------+----------+

| 2001 | 767.19 |

| 2002 | 75.75 |

| 2003 | 5160.45 |

| 2004 | 1309.95 |

| 2006 | 4723.00 |

| 2007 | 1900.10 |

| 2008 | 18.89 |

+------+----------+

7 rows in set (0.00 sec)

89. Write a query that selects the first customer in alphabetical order whose name begins with G.

Ans:

mysql> select min(cname) from customer where cname like 'G%';

+------------+

| min(cname) |

+------------+

| giovanni |

+------------+

1 row in set (0.00 sec)

90. Write a query that counts the number of different non NULL city values in the Customers table.

Ans:

mysql> select count(city) from customer where city!='NULL';

+-------------+

| count(city) |

+-------------+

| 7 |

+-------------+

1 row in set (0.00 sec)

91. Find the average amount from the Orders table.

Ans:

mysql> select avg(amt) from orders;

+-------------+

| avg(amt) |

+-------------+

| 2665.860000 |

+-------------+

1 row in set (0.00 sec)

92. What would be the output from the following query?

SELECT \* FROM ORDERS WHERE NOT (odate = 10/03/96 OR snum > 1006) AND amt >=1500);

Ans;

mysql> SELECT \* FROM ORDERS, customer b WHERE NOT (odate = 10/03/96 OR

b.snum > 1006 AND amt >= 1500);

+------+---------+------------+------+------+----------+----------+--------+----

--+

| onum | amt | odate | cnum | cnum | cname | city | rating | snu

m |

+------+---------+------------+------+------+----------+----------+--------+----

--+

| 3001 | 18.89 | 1996-03-10 | 2008 | 2001 | hoffman | landon | 300 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2002 | giovanni | rome | 200 | 100

3 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2003 | liu | san jose | 200 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2004 | grass | berlin | 300 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2006 | clemens | landon | 100 | 100

1 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2007 | pereira | rome | 100 | 100

4 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2001 | hoffman | landon | 300 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2002 | giovanni | rome | 200 | 100

3 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2003 | liu | san jose | 200 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2004 | grass | berlin | 300 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2006 | clemens | landon | 100 | 100

1 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2007 | pereira | rome | 100 | 100

4 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2001 | hoffman | landon | 300 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2002 | giovanni | rome | 200 | 100

3 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2003 | liu | san jose | 200 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2004 | grass | berlin | 300 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2006 | clemens | landon | 100 | 100

1 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2007 | pereira | rome | 100 | 100

4 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2001 | hoffman | landon | 300 | 100

2 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2002 | giovanni | rome | 200 | 100

3 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2003 | liu | san jose | 200 | 100

2 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2004 | grass | berlin | 300 | 100

2 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2006 | clemens | landon | 100 | 100

1 |

| 3005 | 5160.45 | 1996-03-10 | 2003 | 2007 | pereira | rome | 100 | 100

4 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2001 | hoffman | landon | 300 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2002 | giovanni | rome | 200 | 100

3 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2003 | liu | san jose | 200 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2004 | grass | berlin | 300 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2006 | clemens | landon | 100 | 100

1 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2007 | pereira | rome | 100 | 100

4 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2001 | hoffman | landon | 300 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2002 | giovanni | rome | 200 | 100

3 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2003 | liu | san jose | 200 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2004 | grass | berlin | 300 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2006 | clemens | landon | 100 | 100

1 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2007 | pereira | rome | 100 | 100

4 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2001 | hoffman | landon | 300 | 100

2 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2002 | giovanni | rome | 200 | 100

3 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2003 | liu | san jose | 200 | 100

2 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2004 | grass | berlin | 300 | 100

2 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2006 | clemens | landon | 100 | 100

1 |

| 3008 | 4723.00 | 1996-05-10 | 2006 | 2007 | pereira | rome | 100 | 100

4 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2001 | hoffman | landon | 300 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2002 | giovanni | rome | 200 | 100

3 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2003 | liu | san jose | 200 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2004 | grass | berlin | 300 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2006 | clemens | landon | 100 | 100

1 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2007 | pereira | rome | 100 | 100

4 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2001 | hoffman | landon | 300 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2002 | giovanni | rome | 200 | 100

3 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2003 | liu | san jose | 200 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2004 | grass | berlin | 300 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2006 | clemens | landon | 100 | 100

1 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2007 | pereira | rome | 100 | 100

4 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2001 | hoffman | landon | 300 | 100

2 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2002 | giovanni | rome | 200 | 100

3 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2003 | liu | san jose | 200 | 100

2 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2004 | grass | berlin | 300 | 100

2 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2006 | clemens | landon | 100 | 100

1 |

| 3011 | 9891.88 | 1996-06-10 | 2006 | 2007 | pereira | rome | 100 | 100

4 |

+------+---------+------------+------+------+----------+----------+--------+----

--+

65 rows in set, 80 warnings (0.00 sec)

93. Find all customers who are not located in San Jose and whose rating is above 200.

Ans:

mysql> select cnum,cname from customer where city!='san jose'and rating>200;

+------+---------+

| cnum | cname |

+------+---------+

| 2001 | hoffman |

| 2004 | grass |

+------+---------+

2 rows in set (0.00 sec)

94. Give a simpler way to write this query :

Ans:

mysql> select snum, sname, city, comm from salespeople where (comm >+ 0.12 OR co

mm < 0.14);

+------+---------+-----------+------+

| snum | sname | city | comm |

+------+---------+-----------+------+

| 1001 | peel | landon | 0.12 |

| 1002 | serres | san jose | 0.13 |

| 1003 | axelrod | new york | 0.10 |

| 1004 | motika | landon | 0.11 |

| 1005 | fran | landon | 0.26 |

| 1007 | rifkin | barcelona | 0.15 |

+------+---------+-----------+------+

6 rows in set (0.00 sec)

95. Evaluate the following query :

SELECT \* FROM orders WHERE NOT ((odate = 10/03/96 AND snum > 1002) OR amt > 2000.00);

Ans;

mysql> SELECT \* FROM orders, customer b WHERE NOT ((odate = 10/03/96 AND b.snum

> 1002) OR amt > 2000.00);

+------+---------+------------+------+------+----------+----------+--------+----

--+

| onum | amt | odate | cnum | cnum | cname | city | rating | snu

m |

+------+---------+------------+------+------+----------+----------+--------+----

--+

| 3001 | 18.89 | 1996-03-10 | 2008 | 2001 | hoffman | landon | 300 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2002 | giovanni | rome | 200 | 100

3 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2003 | liu | san jose | 200 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2004 | grass | berlin | 300 | 100

2 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2006 | clemens | landon | 100 | 100

1 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2007 | pereira | rome | 100 | 100

4 |

| 3001 | 18.89 | 1996-03-10 | 2008 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2001 | hoffman | landon | 300 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2002 | giovanni | rome | 200 | 100

3 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2003 | liu | san jose | 200 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2004 | grass | berlin | 300 | 100

2 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2006 | clemens | landon | 100 | 100

1 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2007 | pereira | rome | 100 | 100

4 |

| 3002 | 1900.10 | 1996-03-10 | 2007 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2001 | hoffman | landon | 300 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2002 | giovanni | rome | 200 | 100

3 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2003 | liu | san jose | 200 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2004 | grass | berlin | 300 | 100

2 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2006 | clemens | landon | 100 | 100

1 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2007 | pereira | rome | 100 | 100

4 |

| 3003 | 767.19 | 1996-03-10 | 2001 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2001 | hoffman | landon | 300 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2002 | giovanni | rome | 200 | 100

3 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2003 | liu | san jose | 200 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2004 | grass | berlin | 300 | 100

2 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2006 | clemens | landon | 100 | 100

1 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2007 | pereira | rome | 100 | 100

4 |

| 3006 | 1098.16 | 1996-03-10 | 2008 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2001 | hoffman | landon | 300 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2002 | giovanni | rome | 200 | 100

3 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2003 | liu | san jose | 200 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2004 | grass | berlin | 300 | 100

2 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2006 | clemens | landon | 100 | 100

1 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2007 | pereira | rome | 100 | 100

4 |

| 3007 | 75.75 | 1996-04-10 | 2002 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2001 | hoffman | landon | 300 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2002 | giovanni | rome | 200 | 100

3 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2003 | liu | san jose | 200 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2004 | grass | berlin | 300 | 100

2 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2006 | clemens | landon | 100 | 100

1 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2007 | pereira | rome | 100 | 100

4 |

| 3009 | 1713.23 | 1996-04-10 | 2002 | 2008 | cisneros | san jose | 300 | 100

7 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2001 | hoffman | landon | 300 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2002 | giovanni | rome | 200 | 100

3 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2003 | liu | san jose | 200 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2004 | grass | berlin | 300 | 100

2 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2006 | clemens | landon | 100 | 100

1 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2007 | pereira | rome | 100 | 100

4 |

| 3010 | 1309.95 | 1996-06-10 | 2004 | 2008 | cisneros | san jose | 300 | 100

7 |

+------+---------+------------+------+------+----------+----------+--------+----

--+

49 rows in set, 49 warnings (0.00 sec)

96. Which salespersons attend to customers not in the city they have been assigned to?

Ans:

mysql> select a.sname,a.snum, b.cnum,b.cname from salespeople a, customer b wher

e a.city != b.city;

+---------+------+------+----------+

| sname | snum | cnum | cname |

+---------+------+------+----------+

| serres | 1002 | 2001 | hoffman |

| axelrod | 1003 | 2001 | hoffman |

| rifkin | 1007 | 2001 | hoffman |

| peel | 1001 | 2002 | giovanni |

| serres | 1002 | 2002 | giovanni |

| axelrod | 1003 | 2002 | giovanni |

| motika | 1004 | 2002 | giovanni |

| fran | 1005 | 2002 | giovanni |

| rifkin | 1007 | 2002 | giovanni |

| peel | 1001 | 2003 | liu |

| axelrod | 1003 | 2003 | liu |

| motika | 1004 | 2003 | liu |

| fran | 1005 | 2003 | liu |

| rifkin | 1007 | 2003 | liu |

| peel | 1001 | 2004 | grass |

| serres | 1002 | 2004 | grass |

| axelrod | 1003 | 2004 | grass |

| motika | 1004 | 2004 | grass |

| fran | 1005 | 2004 | grass |

| rifkin | 1007 | 2004 | grass |

| serres | 1002 | 2006 | clemens |

| axelrod | 1003 | 2006 | clemens |

| rifkin | 1007 | 2006 | clemens |

| peel | 1001 | 2007 | pereira |

| serres | 1002 | 2007 | pereira |

| axelrod | 1003 | 2007 | pereira |

| motika | 1004 | 2007 | pereira |

| fran | 1005 | 2007 | pereira |

| rifkin | 1007 | 2007 | pereira |

| peel | 1001 | 2008 | cisneros |

| axelrod | 1003 | 2008 | cisneros |

| motika | 1004 | 2008 | cisneros |

| fran | 1005 | 2008 | cisneros |

| rifkin | 1007 | 2008 | cisneros |

+---------+------+------+----------+

34 rows in set (0.00 sec)

97. Which salespeople get commission greater than 0.11 are serving customers rated less than

250?

Ans:

mysql> select distinct sname from salespeople, customer where comm > 0.11 and cu

stomer.rating >250;

+--------+

| sname |

+--------+

| peel |

| serres |

| fran |

| rifkin |

+--------+

4 rows in set (0.00 sec)

98. Which salespeople have been assigned to the same city but get different commission

percentages?

mysql> select distinct salespeople.sname, customer.rating, customer.city,salespe

ople.city from salespeople, customer where salespeople.city= customer.city ;

+--------+--------+----------+----------+

| sname | rating | city | city |

+--------+--------+----------+----------+

| peel | 300 | landon | landon |

| motika | 300 | landon | landon |

| fran | 300 | landon | landon |

| serres | 200 | san jose | san jose |

| peel | 100 | landon | landon |

| motika | 100 | landon | landon |

| fran | 100 | landon | landon |

| serres | 300 | san jose | san jose |

+--------+--------+----------+----------+

8 rows in set (0.00 sec)

99. Which salesperson has earned the most by way of commission?

Ans;

mysql> select c.sname, sum(amt\*comm) as total from orders a, customer b, salespe

ople c where a.cnum=b.cnum and b.snum= c.snum group by c.snum order by total des

c limit 1;

+-------+-----------+

| sname | total |

+-------+-----------+

| peel | 1753.7856 |

+-------+-----------+

1 row in set (0.00 sec)

100.Does the customer who has placed the maximum number of orders have the maximum rating?

Ans:

mysql> select a.cnum, b.cname,count(\*) as total\_count,rating, (select max(rating

) from customer) from orders a, customer b where a.cnum=b.cnum group by cnum ord

er by total\_count desc;

+------+----------+-------------+--------+------------------------------------+

| cnum | cname | total\_count | rating | (select max(rating) from customer) |

+------+----------+-------------+--------+------------------------------------+

| 2002 | giovanni | 2 | 200 | 300 |

| 2008 | cisneros | 2 | 300 | 300 |

| 2006 | clemens | 2 | 100 | 300 |

| 2001 | hoffman | 1 | 300 | 300 |

| 2007 | pereira | 1 | 100 | 300 |

| 2004 | grass | 1 | 300 | 300 |

| 2003 | liu | 1 | 200 | 300 |

+------+----------+-------------+--------+------------------------------------+

7 rows in set (0.00 sec)

101.Has the customer who has spent the largest amount of money been given the highest rating?

Ans:

mysql> select a.cnum, a.cname, max(b.amt), max(a.rating) from customer a ,orders

b;

+------+---------+------------+---------------+

| cnum | cname | max(b.amt) | max(a.rating) |

+------+---------+------------+---------------+

| 2001 | hoffman | 9891.88 | 300 |

+------+---------+------------+---------------+

1 row in set (0.00 sec)

102.List all customers in descending order of customer rating.

Ans:

mysql> select cname, cnum, rating from customer order by rating desc ;

+----------+------+--------+

| cname | cnum | rating |

+----------+------+--------+

| hoffman | 2001 | 300 |

| grass | 2004 | 300 |

| cisneros | 2008 | 300 |

| giovanni | 2002 | 200 |

| liu | 2003 | 200 |

| clemens | 2006 | 100 |

| pereira | 2007 | 100 |

+----------+------+--------+

7 rows in set (0.00 sec)

103.On which days has Hoffman placed orders?

Ans:

mysql> select odate from orders where cnum=(select cnum from customer where cnam

e='hoffman');

+------------+

| odate |

+------------+

| 1996-03-10 |

+------------+

1 row in set (0.00 sec)

104.Do all salespeople have different commissions?

Ans:

mysql> select \* from salespeople;;

+------+---------+-----------+------+

| snum | sname | city | comm |

+------+---------+-----------+------+

| 1001 | peel | landon | 0.12 |

| 1002 | serres | san jose | 0.13 |

| 1003 | axelrod | new york | 0.10 |

| 1004 | motika | landon | 0.11 |

| 1005 | fran | landon | 0.26 |

| 1007 | rifkin | barcelona | 0.15 |

+------+---------+-----------+------+

6 rows in set (0.00 sec)

105.Which salespeople have no orders between 10/03/1996 and 10/05/1996?

Ans:

mysql> select snum from customer where cnum=ANY(select cnum from orders where o

num='NULL' and odate between "1996-03-10"and "1996-04-10");

Empty set (0.00 sec)

106.How many salespersons have succeeded in getting orders?

Ans:

mysql> select sname,snum, count(snum) from salespeople, orders a where a.onum!=

'NULL';

+-------+------+-------------+

| sname | snum | count(snum) |

+-------+------+-------------+

| peel | 1001 | 60 |

+-------+------+-------------+

1 row in set, 3 warnings (0.00 sec)

107.How many customers have placed orders?

Ans:

mysql> select count(onum) from orders;

+-------------+

| count(onum) |

+-------------+

| 10 |

+-------------+

1 row in set (0.00 sec)

108.On which date has each salesperson booked an order of maximum value?

ANS:

mysql> select odate, max(a.snum) from orders,salespeople a;

+------------+-------------+

| odate | max(a.snum) |

+------------+-------------+

| 1996-03-10 | 1007 |

+------------+-------------+

1 row in set (0.00 sec)

109.Who is the most successful salesperson?

Ans:

mysql> select snum, sname, count(a.onum) from salespeople, orders a;

+------+-------+---------------+

| snum | sname | count(a.onum) |

+------+-------+---------------+

| 1001 | peel | 60 |

+------+-------+---------------+

1 row in set (0.00 sec)

110.Who is the worst customer with respect to the company?

Ans:

mysql> select a.cnum, b.cname, sum(a.amt) as cust\_total from orders a, customer

b group by a.cnum order by cust\_total limit 1;

+------+---------+------------+

| cnum | cname | cust\_total |

+------+---------+------------+

| 2001 | hoffman | 5370.33 |

+------+---------+------------+

1 row in set (0.00 sec)

111.Are all customers not having placed orders greater than 200 totally been serviced by

salespersons Peel or Serres?

Ans:

mysql> select sname from salespeople where snum= any(select snum from customer w

here cnum=any(select cnum from orders where amt < 200));

+---------+

| sname |

+---------+

| axelrod |

| rifkin |

+---------+

2 rows in set (0.00 sec)

112.Which customers have the same rating?

Ans:

mysql> select a.cname, a.cname, a.rating from customer a, customer b where a.rat

ing=b.rating and a.cnum != b.cnum;

+----------+----------+--------+

| cname | cname | rating |

+----------+----------+--------+

| grass | grass | 300 |

| cisneros | cisneros | 300 |

| liu | liu | 200 |

| giovanni | giovanni | 200 |

| hoffman | hoffman | 300 |

| cisneros | cisneros | 300 |

| pereira | pereira | 100 |

| clemens | clemens | 100 |

| hoffman | hoffman | 300 |

| grass | grass | 300 |

+----------+----------+--------+

10 rows in set (0.00 sec)

113.Find all orders greater than the average for October 4th.

Ans:

mysql> select \* from orders where amt> (select avg(amt) from orders where odate=

'1996-04-10');

+------+---------+------------+------+

| onum | amt | odate | cnum |

+------+---------+------------+------+

| 3002 | 1900.10 | 1996-03-10 | 2007 |

| 3005 | 5160.45 | 1996-03-10 | 2003 |

| 3006 | 1098.16 | 1996-03-10 | 2008 |

| 3008 | 4723.00 | 1996-05-10 | 2006 |

| 3009 | 1713.23 | 1996-04-10 | 2002 |

| 3010 | 1309.95 | 1996-06-10 | 2004 |

| 3011 | 9891.88 | 1996-06-10 | 2006 |

+------+---------+------------+------+

7 rows in set (0.00 sec)

114.Which customers have above average orders?

Ans:

mysql> select onum,odate, amt, cnum from orders where amt > (select sum(amt)/cou

nt(onum) as average from orders);

+------+------------+---------+------+

| onum | odate | amt | cnum |

+------+------------+---------+------+

| 3005 | 1996-03-10 | 5160.45 | 2003 |

| 3008 | 1996-05-10 | 4723.00 | 2006 |

| 3011 | 1996-06-10 | 9891.88 | 2006 |

+------+------------+---------+------+

3 rows in set (0.00 sec)s

115.List all customers with ratings above San Jose’s average.

Ans:

mysql> select \* from customer where rating > (select avg(rating) from customer w

here city ='san jose');

+------+----------+----------+--------+------+

| cnum | cname | city | rating | snum |

+------+----------+----------+--------+------+

| 2001 | hoffman | landon | 300 | 1002 |

| 2004 | grass | berlin | 300 | 1002 |

| 2008 | cisneros | san jose | 300 | 1007 |

+------+----------+----------+--------+------+

3 rows in set (0.00 sec)

116.Select the total amount in orders for each salesperson for whom the total is greater than the

amount of the largest order in the table.

Ans:

mysql> select sum(a.amt),b.snum,c.sname from orders a,customer b,salespeople c where a.cnum=b.cnum and b.snum=c.snum group by b.snum having sum(a.amt) >(select max(amt) from orders);

+------------+------+-------+

| sum(a.amt) | snum | sname |

+------------+------+-------+

| 14614.88 | 1001 | peel |

+------------+------+-------+

1 row in set (0.00 sec)

mysql>

117.Give names and numbers of all salespersons who have more than one customer.

Ans:

mysql> select b.sname, a.snum, count(a.snum) from customer a, salespeople b wher

e a.snum=b.snum group by snum having count(a.snum) >1;

+--------+------+---------------+

| sname | snum | count(a.snum) |

+--------+------+---------------+

| serres | 1002 | 3 |

+--------+------+---------------+

1 row in set (0.00 sec)

118.Select all salespersons by name and number who have customers in their city whom they

don’t service.

mysql> select distinct cname from customer a, salespeople b where a.city= b.cit

y and a.snum != b.snum;

+----------+

| cname |

+----------+

| hoffman |

| clemens |

| cisneros |

+----------+

3 rows in set (0.00 sec)

119.Which customers’ rating should be lowered?

Ans;

mysql> select cname, city, rating from customer where rating <200;

+---------+--------+--------+

| cname | city | rating |

+---------+--------+--------+

| clemens | landon | 100 |

| pereira | rome | 100 |

+---------+--------+--------+

2 rows in set (0.00 sec)

120.Is there a case for assigning a salesperson to Berlin?

Ans:

mysql> select \* from salespeople, customer where customer.city='berlin';

+------+---------+-----------+------+------+-------+--------+--------+------+

| snum | sname | city | comm | cnum | cname | city | rating | snum |

+------+---------+-----------+------+------+-------+--------+--------+------+

| 1001 | peel | landon | 0.12 | 2004 | grass | berlin | 300 | 1002 |

| 1002 | serres | san jose | 0.13 | 2004 | grass | berlin | 300 | 1002 |

| 1003 | axelrod | new york | 0.10 | 2004 | grass | berlin | 300 | 1002 |

| 1004 | motika | landon | 0.11 | 2004 | grass | berlin | 300 | 1002 |

| 1005 | fran | landon | 0.26 | 2004 | grass | berlin | 300 | 1002 |

| 1007 | rifkin | barcelona | 0.15 | 2004 | grass | berlin | 300 | 1002 |

+------+---------+-----------+------+------+-------+--------+--------+------+

6 rows in set (0.00 sec)

121.Is there any evidence linking the performance of a salesperson to the commission that he or

she is being paid?

Ans:

No

122.Does the total amount in orders by customer in Rome and London exceed the commission

paid to salespersons in London and New York by more than 5 times?

Ans:

No

mysql> select (select sum(a.amt\*c.comm) as totalsales from orders a, customer b,

salespeople c where a.cnum=b.cnum and b.snum=c.snum and (c.city='landon' or c.city ='new york')) as total\_order, (select sum(a.amt) from orders a, customer b where a.cnum=b.cnum and (b.city='rome' or b.city='landon')) ast total\_comm;

not completed

123.Which is the date, order number, amt and city for each salesperson (by name) for the

maximum order he has obtained?

Ans;

mysql> select max(a.amt),b.snum,a.onum,a.odate,b.snum,c.sname from orders a,cust

omer b,salespeople c where a.cnum=b.cnum and b.snum=c.snum group by c.snum;

+------------+------+------+------------+------+---------+

| max(a.amt) | snum | onum | odate | snum | sname |

+------------+------+------+------------+------+---------+

| 9891.88 | 1001 | 3008 | 1996-05-10 | 1001 | peel |

| 5160.45 | 1002 | 3003 | 1996-03-10 | 1002 | serres |

| 1713.23 | 1003 | 3007 | 1996-04-10 | 1003 | axelrod |

| 1900.10 | 1004 | 3002 | 1996-03-10 | 1004 | motika |

| 1098.16 | 1007 | 3001 | 1996-03-10 | 1007 | rifkin |

+------------+------+------+------------+------+---------+

5 rows in set (0.00 sec)

124.Which salesperson(s) should be fired?

Ans:

Hoffman. Because he is the worst customer.

125.What is the total income for the company?

Ans:

mysql> select sum(amt)-(select (sum(a.amt)\*(c.comm)) from orders a,customer b,sa

lespeople c where a.cnum=b.cnum and b.snum=c.snum) as company\_income from orders

;

+----------------+

| company\_income |

+----------------+

| 23459.5680 |

+----------------+

1 row in set (0.00 sec)