#To create table of salesman:

create table salesman(
    -> salesman_id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
    -> name VARCHAR(100) NOT NULL,
    -> city VARCHAR(100) NOT NULL,
    -> commision DECIMAL(10,2)
    ->);

```
mysql> desc salesman;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| salesman_id | int(11)       | NO   | PRI | NULL    | auto_increment |
| name        | varchar(100)  | NO   |     | NULL    |                |
| city        | varchar(100)  | NO   |     | NULL    |                |
| commision   | decimal(10,2) | YES  |     | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

#To create table of customer:

create table customer(
    -> customer_id INT AUTO_INCREMENT PRIMARY KEY,
    -> customer_name VARCHAR(100) NOT NULL,
    -> city VARCHAR(100) NOT NULL,
    -> grade INT,
    -> salesman_id INT,
    -> FOREIGN KEY(salesman_id) REFERENCES salesman(salesman_id)
    ->);

```
mysql> desc customer;
+---------------+--------------+------+-----+---------+----------------+
| Field         | Type         | Null | Key | Default | Extra          |
+---------------+--------------+------+-----+---------+----------------+
| customer_id   | int(11)      | NO   | PRI | NULL    | auto_increment |
| customer_name | varchar(100) | NO   |     | NULL    |                |
| city          | varchar(100) | NO   |     | NULL    |                |
| grade         | int(11)      | YES  |     | NULL    |                |
| salesman_id   | int(11)      | YES  | MUL | NULL    |                |
+---------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

#To create table of orders:

create table orders(

    -> order_no INT AUTO_INCREMENT PRIMARY KEY,

    -> purch_amt DECIMAL(10,2) NOT NULL,

    -> order_date DATE NOT NULL,

    -> customer_id INT,

    -> salesman_id INT,

    -> FOREIGN KEY(customer_id) REFERENCES customer(customer_id),

    -> FOREIGN KEY(salesman_id) REFERENCES salesman(salesman_id)

    ->);

```
mysql> desc orders;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| order_no    | int(11)       | NO   | PRI | NULL    | auto_increment |
| purch_amt   | decimal(10,2) | NO   |     | NULL    |                |
| order_date  | date          | NO   |     | NULL    |                |
| customer_id | int(11)       | YES  | MUL | NULL    |                |
| salesman_id | int(11)       | YES  | MUL | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
5 rows in set (0.01 sec)
```

#To insert the values of salesman:

insert into salesman values(5001, 'James Hoog', 'New York', 0.15);

insert into salesman values(5002, 'Nail knite', 'Paris', 0.13);

insert into salesman values(5005,'Pit Alex', 'London', 0.11);

insert into salesman values(5006, 'MC Lyon', 'Paris', 0.14);

insert into salesman values(5003, 'Lauson Hen', '', 0.12);

insert into salesman values(5007, 'Paul Adam', 'Rome', 0.13);

```
+-------------+------------+----------+----------+
| salesman_id | name       | city     | commision |
+-------------+------------+----------+----------+
|        5001 | James Hoog | New York |     0.15 |
|        5002 | Nail knite | Paris    |     0.13 |
|        5003 | MC Lyon    | Paris    |     0.14 |
|        5005 | Pit Alex   | London   |     0.11 |
|        5006 | Lauson Hen | New York |     0.12 |
|        5007 | Paul Adam  | Rome     |     0.13 |
+-------------+------------+----------+----------+
6 rows in set (0.00 sec)
```

#Insert the values of customer:
insert into customer values(3001, 'Brad Guzan', 'London', NULL,5003);
insert into customer values(3004, 'Fabian Johns', 'Paris', 300,5006);
insert into customer values(3007, 'Brad davis', 'New York', 200,5001);
insert into customer values(3009, 'Geoff camero', 'Berlin', 100,5003);
insert into customer values(3008, 'Julian Green', 'London', 300,5002);
insert into customer values(3003, 'Jozy Altidor', 'Moncow', 200,5007);

```
+-------------+-------------+-----------+------------+
| salesman_id | name        | city      | commision  |
+-------------+-------------+-----------+------------+
|        5001 | James Hoog  | New York  |      0.15  |
|        5002 | Nail knite  | Paris     |      0.13  |
|        5003 | Lauson Hen  |           |      0.12  |
|        5005 | Pit Alex    | London    |      0.11  |
|        5006 | MC Lyon     | Paris     |      0.14  |
|        5007 | Paul Adam   | Rome      |      0.13  |
+-------------+-------------+-----------+------------+
6 rows in set (0.00 sec)
```

#Insert the values of orders:
insert into orders values(70001, 150.5, '2016-10-05',3005,5002);
insert into orders values(70009, 270.65, '2016-09-10',3001,5003);
insert into orders values(70002, 65.26, '2016-10-15',3002,5001);
insert into orders values(70004, 110.5, '2016-08-17',3009,5003);
insert into orders values(70007, 948.5, '2016-09-10',3005,5002);
insert into orders values(70005, 2400.6, '2016-07-27',3007,5001);
insert into orders values(700010, 1983.43, '2016-10-10',3004,5006);
insert into orders values(70003, 2480.4, '2016-10-10',3009,5003);
insert into orders values(700012, 250.45, '2016-06-27',3008,5002);
insert into orders values(700011, 75.29, '2016-08-17',3003,5007);

```
+-------------+---------------+------------+-------+-------------+
| customer_id | customer_name | city       | grade | salesman_id |
+-------------+---------------+------------+-------+-------------+
|        3001 | Brad Guzan    | London     | NULL  |        5003 |
|        3002 | Nick rimando  | New York   | 100   |        5001 |
|        3003 | Jozy Altidor  | Moncow     | 200   |        5007 |
|        3004 | Fabian Johns  | Paris      | 300   |        5006 |
|        3005 | Graham Zusi   | California | 200   |        5002 |
|        3007 | Brad davis    | New York   | 200   |        5001 |
|        3008 | Julian Green  | London     | 300   |        5002 |
|        3009 | Geoff camero  | Berlin     | 100   |        5003 |
+-------------+---------------+------------+-------+-------------+
```

1. Display name and commission for all the salesmen.

select name, commision FROM salesman;

```
mysql> select name, commision FROM salesman;
+-------------+-----------+
| name        | commision |
+-------------+-----------+
| James Hoog  |      0.15 |
| Nail knite  |      0.13 |
| Lauson Hen  |      0.12 |
| Pit Alex    |      0.11 |
| MC Lyon     |      0.14 |
| Paul Adam   |      0.13 |
+-------------+-----------+
6 rows in set (0.00 sec)
```

2. Retrieve salesman id of all salesmen from orders table without any repeats.

select DISTINCT salesman_id FROM orders;

```
+-------------+
| salesman_id |
+-------------+
|        5001 |
|        5002 |
|        5003 |
|        5006 |
|        5007 |
+-------------+
5 rows in set (0.00 sec)
```

3. Display names and city of salesman, who belongs to the city of Paris.

select name,city FROM salesman WHERE city='Paris';

```
+-------------+-------+
| name        | city  |
+-------------+-------+
| Nail knite  | Paris |
| MC Lyon     | Paris |
+-------------+-------+
2 rows in set (0.00 sec)
```

4. Display all the information for those customers with a grade of 200.

select * from customer WHERE grade=200;

```
+-------------+---------------+------------+-------+-------------+
| customer_id | customer_name | city       | grade | salesman_id |
+-------------+---------------+------------+-------+-------------+
|        3003 | Jozy Altidor  | Moncow     |   200 |        5007 |
|        3005 | Graham Zusi   | California |   200 |        5002 |
|        3007 | Brad davis    | New York   |   200 |        5001 |
+-------------+---------------+------------+-------+-------------+
```

5. Display the order number, order date and the purchase amount for order(s) which will be delivered by the salesman with ID 5001

select order_no, order_date, purch_amt FROM orders WHERE salesman_id="5001";

```
+----------+------------+-----------+
| order_no | order_date | purch_amt |
+----------+------------+-----------+
|    70002 | 2016-10-15 |     65.26 |
|    70005 | 2016-07-27 |   2400.60 |
+----------+------------+-----------+
2 rows in set (0.00 sec)
```

6. Display all the customers, who are either belongs to the city New York or not had a grade above 100.

select * from customer where city='New York' OR grade<=100;

```
+-------------+---------------+----------+-------+-------------+
| customer_id | customer_name | city     | grade | salesman_id |
+-------------+---------------+----------+-------+-------------+
|        3002 | Nick rimando  | New York |   100 |        5001 |
|        3007 | Brad davis    | New York |   200 |        5001 |
|        3009 | Geoff camero  | Berlin   |   100 |        5003 |
+-------------+---------------+----------+-------+-------------+
```

7. Find those salesmen with all information who gets the commission within a range of 0.12 and 0.14.

select * from salesman WHERE commision BETWEEN 0.12 AND 0.14;

```
+-------------+-------------+--------+-----------+
| salesman_id | name        | city   | commision |
+-------------+-------------+--------+-----------+
|        5002 | Nail knite  | Paris  |      0.13 |
|        5003 | Lauson Hen  |        |      0.12 |
|        5006 | MC Lyon     | Paris  |      0.14 |
|        5007 | Paul Adam   | Rome   |      0.13 |
+-------------+-------------+--------+-----------+
4 rows in set (0.00 sec)
```

8. Find all those customers with all information whose names are ending with the letter 'n'.

select * from salesman WHERE name LIKE '%n';

```
+-------------+-------------+--------+-----------+
| salesman_id | name        | city   | commision |
+-------------+-------------+--------+-----------+
|        5003 | Lauson Hen  |        |      0.12 |
|        5006 | MC Lyon     | Paris  |      0.14 |
+-------------+-------------+--------+-----------+
2 rows in set (0.00 sec)
```

9. Find those salesmen with all information whose name containing the 1st character is 'N' and the 4th character is 'l' and rests may be any character.

select * from salesman WHERE name LIKE 'N_i%';

```
+-------------+-------------+--------+-----------+
| salesman_id | name        | city   | commision |
+-------------+-------------+--------+-----------+
|        5002 | Nail knite  | Paris  |      0.13 |
+-------------+-------------+--------+-----------+
1 row in set (0.00 sec)
```

10. Find that customer with all information who does not get any grade except NULL.

select * from customer WHERE grade is NULL;

```
+-------------+---------------+---------+-------+-------------+
| customer_id | customer_name | city    | grade | salesman_id |
+-------------+---------------+---------+-------+-------------+
|        3001 | Brad Guzan    | London  | NULL  |        5003 |
+-------------+---------------+---------+-------+-------------+
1 row in set (0.00 sec)
```