```
mysql> create table client_master(
    -> client_no varchar(6),
    -> client_name varchar(20),
    -> city varchar(15),
    -> state varchar(15),
    -> pincode integer(6),
    -> bal_due decimal(10,2));
Query OK, 0 rows affected, 1 warning (0.09 sec)

mysql> show tables;
+----------------------+
| Tables_in_university |
+----------------------+
| client_master        |
+----------------------+
1 row in set (0.03 sec)

mysql> desc client_master;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| client_no   | varchar(6)    | YES  |     | NULL    |       |
| client_name | varchar(20)   | YES  |     | NULL    |       |
| city        | varchar(15)   | YES  |     | NULL    |       |
| state       | varchar(15)   | YES  |     | NULL    |       |
| pincode     | int           | YES  |     | NULL    |       |
| bal_due     | decimal(10,2) | YES  |     | NULL    |       |
+-------------+---------------+------+-----+---------+-------+
6 rows in set (0.02 sec)

mysql> insert into client_master
    -> values("0001","Ivan","Bombay","Maharastra",400054,15000);
Query OK, 1 row affected (0.02 sec)

mysql> insert into client_master
    -> values("0002","Vandana","Madras","Tamil Nadu",780001,0);
Query OK, 1 row affected (0.02 sec)
```

Command Prompt - mysql -u root -p

```
mysql> /*iii- all clients from bombay */
mysql> select * from client_master
    -> where city = "Bombay";
+-----------+-------------+--------+------------+---------+---------+
| client_no | client_name | city   | state      | pincode | bal_due |
+-----------+-------------+--------+------------+---------+---------+
| 0001      | Ivan        | Bombay | Maharastra | 400054  | 15000.00 |
| 0003      | Pramada     | Bombay | Maharastra | 400057  | 5000.00  |
| 0004      | Basu        | Bombay | Maharastra | 400056  | 0.00     |
| 0006      | Rukhmini    | Bombay | Maharastra | 400050  | 0.00     |
+-----------+-------------+--------+------------+---------+---------+
4 rows in set (0.00 sec)

mysql> /*iv- info of client 0001 and 0002 */
mysql> select * from client_master
    -> where client_no = "0001" or client_no = "0002";
+-----------+-------------+--------+------------+---------+---------+
| client_no | client_name | city   | state      | pincode | bal_due |
+-----------+-------------+--------+------------+---------+---------+
| 0001      | Ivan        | Bombay | Maharastra | 400054  | 15000.00 |
| 0002      | Vandana     | Madras | Tamil Nadu | 780001  | 0.00     |
+-----------+-------------+--------+------------+---------+---------+
2 rows in set (0.00 sec)
```

Command Prompt - mysql -u root -p

```
mysql> select * from client_master;
+-----------+-------------+--------+------------+---------+----------+
| client_no | client_name | city   | state      | pincode | bal_due  |
+-----------+-------------+--------+------------+---------+----------+
| 0001      | Ivan        | Bombay | Maharastra | 400054  | 15000.00 |
| 0002      | Vandana     | Madras | Tamil Nadu | 780001  | 0.00     |
| 0003      | Pramada     | Bombay | Maharastra | 400057  | 5000.00  |
| 0004      | Basu        | Bombay | Maharastra | 400056  | 0.00     |
| 0005      | Ravi        | Delhi  | NULL       | 100001  | 0.00     |
| 0006      | Rukhmini    | Bombay | Maharastra | 400050  | 0.00     |
+-----------+-------------+--------+------------+---------+----------+
6 rows in set (0.01 sec)

mysql> /*i- name of all clients*/
mysql> select client_name from client_master;
+-------------+
| client_name |
+-------------+
| Ivan        |
| Vandana     |
| Pramada     |
| Basu        |
| Ravi        |
| Rukhmini    |
+-------------+
6 rows in set (0.00 sec)

mysql> /*ii- names and cities of all clients*/
mysql> select client_name,city from client_master;
+-------------+--------+
| client_name | city   |
+-------------+--------+
| Ivan        | Bombay |
| Vandana     | Madras |
| Pramada     | Bombay |
| Basu        | Bombay |
| Ravi        | Delhi  |
| Rukhmini    | Bombay |
+-------------+--------+
6 rows in set (0.00 sec)
```

```
mysql> select * from studentdetails
    -> where CGPA like "%.5_";
+----------------+------------+--------+-----+--------+----------------------+------------+--------+
| name           | rollno     | gender | sem | branch | emailid              | city       | CGPA   |
+----------------+------------+--------+-----+--------+----------------------+------------+--------+
| Chandan Khilar | 2302010065 | M      | 3rd | CHEM   | ck65@gmail.com       | Jharsuguda | 6.52   |
| Rittika Mohapatra | 2302080008 | F   | 3rd | CSE    | mohapatra@gmail.com  | Balasore   | 9.52   |
+----------------+------------+--------+-----+--------+----------------------+------------+--------+
2 rows in set (0.01 sec)
```

```
mysql> create database 2302040025sam;
Query OK, 1 row affected (0.13 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| 2302040025sam      |
| client             |
| information_schema |
| jatindb            |
| mysql              |
| performance_schema |
| sys                |
| university         |
+--------------------+
8 rows in set (0.16 sec)

mysql> use 2302040025sam;
Database changed
mysql> show tables;
Empty set (0.04 sec)

mysql> create table studentdetails(
    -> name varchar(30),
    -> rollno varchar(10),
    -> gender varchar(10),
    -> sem varchar(5),
    -> branch varchar(10),
    -> emailid varchar(20),
    -> city varchar(20),
    -> CGPA decimal(4,2));
Query OK, 0 rows affected (0.20 sec)

mysql> show tables;
+-------------------------+
| Tables_in_2302040025sam |
+-------------------------+
| studentdetails          |
+-------------------------+
1 row in set (0.01 sec)
```

```
mysql> desc studentdetails;
+----------+--------------+------+-----+---------+-------+
| Field    | Type         | Null | Key | Default | Extra |
+----------+--------------+------+-----+---------+-------+
| name     | varchar(30)  | YES  |     | NULL    |       |
| rollno   | varchar(10)  | YES  |     | NULL    |       |
| gender   | varchar(10)  | YES  |     | NULL    |       |
| sem      | varchar(5)   | YES  |     | NULL    |       |
| branch   | varchar(10)  | YES  |     | NULL    |       |
| emailid  | varchar(30)  | YES  |     | NULL    |       |
| city     | varchar(20)  | YES  |     | NULL    |       |
| CGPA     | decimal(4,2) | YES  |     | NULL    |       |
+----------+--------------+------+-----+---------+-------+
8 rows in set (0.04 sec)

mysql> select * from studentdetails;
Empty set (0.00 sec)
```

```
mysql> /*v - all clients from city delhi, bombay or madras */
mysql> select * from client_master
    -> where city in ("Delhi","Bombay","Madras");
+-----------+----------+--------+---------+------------+----------+
| client_no | name     | city   | pincode | state      | bal_due  |
+-----------+----------+--------+---------+------------+----------+
| 0001      | Ivan     | Bombay | 768003  | Maharastra | 15000.00 |
| 0002      | Vandana  | Madras | 780001  | Tamil Nadu |     0.00 |
| 0003      | Pramada  | Bombay | 400057  | Maharastra |  5000.00 |
| 0004      | Basu     | Bombay | 400050  | Maharastra |     0.00 |
| 0005      | Ravi     | Delhi  | 100001  | NULL       |  2000.00 |
| 0006      | Rukhmini | Bombay | 400050  | Maharastra |     0.00 |
+-----------+----------+--------+---------+------------+----------+
6 rows in set (0.03 sec)

mysql> /*vi - name,city and state of clients not in maharastra*/
mysql> select * from client_master
    -> where state <>"Maharastra";
+-----------+---------+--------+---------+------------+---------+
| client_no | name    | city   | pincode | state      | bal_due |
+-----------+---------+--------+---------+------------+---------+
| 0002      | Vandana | Madras | 780001  | Tamil Nadu |    0.00 |
+-----------+---------+--------+---------+------------+---------+
1 row in set (0.00 sec)

mysql> /*vii - name of client with balance due more than 2000*/
mysql> select * from client_master
    -> where bal_due>2000;
+-----------+---------+--------+---------+------------+----------+
| client_no | name    | city   | pincode | state      | bal_due  |
+-----------+---------+--------+---------+------------+----------+
| 0001      | Ivan    | Bombay | 768003  | Maharastra | 15000.00 |
| 0003      | Pramada | Bombay | 400057  | Maharastra |  5000.00 |
+-----------+---------+--------+---------+------------+----------+
2 rows in set (0.02 sec)
```

```
mysql> select * from studentdetails
    -> where city in ("Bhubaneswar","Balasore");
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name           | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel         | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Trishna Das    | 2302041055 | F      | 3rd  | CSE    | trishnadas2005@gmail.com    | Bhubaneswar | 8.99 |
| Anurag Mishra  | 2302070045 | M      | 3rd  | EEE    | anuragprivatejet@gmail.com  | Balasore    | 8.75 |
| Ritika Mohapatra | 2302080008 | F     | 3rd  | CSE    | mohapatrar@gmail.com        | Balasore    | 9.52 |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
4 rows in set (0.05 sec)

mysql> select * from studentdetails
    -> where name like "_a%";
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name           | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel         | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Jatin Samad    | 2302041075 | M      | 3rd  | CSE    | jatinsamad18@gmail.com      | Rourkela    | 7.18 |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
2 rows in set (0.00 sec)

mysql> select * from studentdetails
    -> where rollno like "%5";
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name           | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel         | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Trishna Das    | 2302041055 | F      | 3rd  | CSE    | trishnadas2005@gmail.com    | Bhubaneswar | 8.99 |
| Chandan Khilar | 2302010065 | M      | 3rd  | CHEM   | ck65@gmail.com              | Jharsuguda  | 6.52 |
| Jatin Samad    | 2302041075 | M      | 3rd  | CSE    | jatinsamad18@gmail.com      | Rourkela    | 7.18 |
| Anurag Mishra  | 2302070045 | M      | 3rd  | EEE    | anuragprivatejet@gmail.com  | Balasore    | 8.75 |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
5 rows in set (0.01 sec)
```

```
mysql> select name,pincode from client_master
mysql> /*xiv- client name and pincode with balance due with balance due >-1000 */
    -> where bal_due>=1000;
+---------+---------+
| name    | pincode |
+---------+---------+
| Ivan    | 768003  |
| Pramada | 400057  |
+---------+---------+
2 rows in set (0.01 sec)
```

```
mysql> select * from studentdetails
    -> where city like "";
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name           | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel         | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Chandan Khilar | 2302010065 | M      | 3rd  | CHEM   | ck65@gmail.com              | Jharsuguda  | 6.52 |
| Jatin Samad    | 2302041075 | M      | 3rd  | CSE    | jatinsamad18@gmail.com      | Rourkela    | 7.18 |
| Anurag Mishra  | 2302070045 | M      | 3rd  | EEE    | anuragprivatejet@gmail.com  | Balasore    | 8.75 |
| Ritika Mohapatra | 2302080008 | F     | 3rd  | CSE    | mohapatrar@gmail.com        | Balasore    | 9.52 |
+----------------+------------+--------+------+--------+-----------------------------+-------------+------+
5 rows in set (0.02 sec)

mysql> select * from studentdetails
    -> where gender="M";
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name               | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel             | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Chandan Khilar     | 2302010065 | M      | 3rd  | CHEM   | ck65@gmail.com              | Jharsuguda  | 6.52 |
| Jatin Samad        | 2302041075 | M      | 3rd  | CSE    | jatinsamad18@gmail.com      | Rourkela    | 7.18 |
| Anurag Mishra      | 2302070045 | M      | 3rd  | EEE    | anuragprivatejet@gmail.com  | Balasore    | 8.75 |
| Ritika Mohapatra   | 2302080008 | F      | 3rd  | CSE    | mohapatrar@gmail.com        | Balasore    | 9.52 |
| Bibekanand Routray | 2302040001 | M      | 3rd  | CSE    | routratibek@gmail.com       | Cuttack     | 9.69 |
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
7 rows in set (0.00 sec)
```

```
mysql> select * from studentdetails;
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
| name               | rollno     | gender | sem  | branch | emailid                     | city        | CGPA |
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
| Samuel             | 2302040025 | M      | 3rd  | CSE    | samuelpriyatam@gmail.com    | Bhubaneswar | 8.23 |
| Trishna Das        | 2302041055 | F      | 3rd  | CSE    | trishnadas2005@gmail.com    | Bhubaneswar | 8.99 |
| Chandan Khilar     | 2302010065 | M      | 3rd  | CHEM   | ck65@gmail.com              | Jharsuguda  | 6.52 |
| Jatin Samad        | 2302041075 | M      | 3rd  | CSE    | jatinsamad18@gmail.com      | Rourkela    | 7.18 |
| Anurag Mishra      | 2302070045 | M      | 3rd  | EEE    | anuragprivatejet@gmail.com  | Balasore    | 8.75 |
| Ritika Mohapatra   | 2302080008 | F      | 3rd  | CSE    | mohapatrar@gmail.com        | Balasore    | 9.52 |
| Bibekanand Routray | 2302040001 | M      | 3rd  | CSE    | routratibek@gmail.com       | Cuttack     | 9.69 |
+--------------------+------------+--------+------+--------+-----------------------------+-------------+------+
```

```
mysql> /*viii- delete the row with null value in state*/
mysql> delete from client_Master
    -> where state is NULL;
Query OK, 1 row affected (0.05 sec)

mysql> /*ix- delete the record with clientno 0002"
       /* */
mysql> delete from client_Master
    -> where client_no=0002;
Query OK, 1 row affected (0.15 sec)

mysql> select * from client_master;
+-----------+----------+--------+---------+------------+----------+
| client_no | name     | city   | pincode | state      | bal_due  |
+-----------+----------+--------+---------+------------+----------+
| 0001      | Ivan     | Bombay | 768003  | Maharastra | 15000.00 |
| 0003      | Pramada  | Bombay | 400057  | Maharastra |  5000.00 |
| 0004      | Basu     | Bombay | 400050  | Maharastra |     0.00 |
| 0006      | Rukhmini | Bombay | 400050  | Maharastra |     0.00 |
+-----------+----------+--------+---------+------------+----------+
4 rows in set (0.01 sec)

mysql> /*x- change the city of client 0004 to delhi and assign null to state*/
mysql> update client_master
    -> set city="Delhi",state=NULL
    -> where client_no=0004;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> /*xi- change the balance due of client 0001 to 1000*/
mysql> update client_master
    -> set bal_due=1000
    -> where client_no=0001;
Query OK, 1 row affected (0.10 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> /*xii- client in name  with second letter 'a' */
mysql> select * from client_master
    -> where name like "_a%";
+-----------+------+-------+---------+-------+---------+
| client_no | name | city  | pincode | state | bal_due |
+-----------+------+-------+---------+-------+---------+
| 0004      | Basu | Delhi | 400050  | NULL  |    0.00 |
+-----------+------+-------+---------+-------+---------+
1 row in set (0.01 sec)
```