

```
C:\Windows\system32\cmd.exe - mysql -u root -p

mysql> show databases;
+-----+
| Database |
+-----+
| customer |
| info     |
| information_schema |
| mysql    |
| performance_schema |
| prince   |
| student  |
| sys      |
+-----+
8 rows in set (0.00 sec)

mysql> use prince;
Database changed
mysql> select * from student;
+-----+-----+-----+-----+-----+-----+-----+
| Seat_no | Roll_no | Name | Department | Year_of_Study | DOB | Mobile_no |
+-----+-----+-----+-----+-----+-----+-----+
| 152700  | 203     | ABC  | Computer   | Third         | 2003-05-14 | 102938475 |
| 152701  | 272     | XYZ  | Computer   | Third         | 2003-05-29 | 123456789 |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> create view te as select Seat_no, Roll_no, Name, Department from student;
Query OK, 0 rows affected (0.10 sec)

mysql> select Seat_no, Name from student;
+-----+-----+
| Seat_no | Name |
+-----+-----+
| 152700  | ABC  |
| 152701  | XYZ  |
+-----+-----+
2 rows in set (0.00 sec)

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Seat_no | varchar(20) | YES | | NULL | |
| Roll_no | varchar(20) | YES | | NULL | |
| Name | varchar(100) | YES | | NULL | |
| Department | varchar(100) | YES | | NULL | |
| Year_of_Study | varchar(50) | YES | | NULL | |
| DOB | date | YES | | NULL | |
| Mobile_no | varchar(15) | YES | | NULL | |
| Email | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
```

```
mysql> CREATE TABLE stud1 (  
->     roll_no INT,  
->     name CHAR(20),  
->     student_id INT,  
->     department CHAR(10)  
-> );
```

Query OK, 0 rows affected (0.46 sec)

```
mysql> INSERT INTO stud1 (roll_no, name, student_id, department)  
-> VALUES  
-> (1, 'XYZ', 111, 'CS'),  
-> (2, 'PQR', 112, 'CS'),  
-> (3, 'SUU', 113, 'CS'),  
-> (4, 'LMN', 114, 'CS'),  
-> (5, 'GHI', 115, 'CS');
```

Query OK, 5 rows affected (0.15 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> CREATE TABLE stud2 (  
->     roll_no INT,  
->     prn_no INT,  
->     mobile_no INT,  
->     year CHAR(10)  
-> );
```

Query OK, 0 rows affected (1.95 sec)

```
mysql> INSERT INTO stud2 (roll_no, prn_no, mobile_no, year)  
-> VALUES (2, 101, 987654, 'Third');
```

Query OK, 1 row affected (0.04 sec)

```
mysql> select * from stud2;
```

roll_no	prn_no	mobile_no	year
2	101	987654	Third

1 row in set (0.00 sec)

```
mysql> INSERT INTO stud2 (roll_no, prn_no, mobile_no, year)  
-> VALUES  
-> (3, 102, 123456, 'Third'),  
-> (4, 103, 846372, 'Third'),  
-> (5, 104, 352718, 'Third');
```

Query OK, 3 rows affected (0.07 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM stud2;
```

roll_no	prn_no	mobile_no	year
2	101	987654	Third
3	102	123456	Third
4	103	846372	Third
5	104	352718	Third

4 rows in set (0.00 sec)

```
mysql> select * from stud1;
```

roll_no	name	student_id	department
1	XYZ	111	CS
2	PQR	112	CS
3	SUV	113	CS
4	LMN	114	CS
5	GHI	115	CS

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT *
-> FROM stud1
-> INNER JOIN stud2
-> ON stud1.roll_no = stud2.roll_no;
```

roll_no	name	student_id	department	roll_no	prn_no	mobile_no	year
2	PQR	112	CS	2	101	987654	Thir
3	SUV	113	CS	3	102	123456	Thir
4	LMN	114	CS	4	103	846372	Thir
5	GHI	115	CS	5	104	352718	Thir

```
4 rows in set (0.00 sec)
```

```
mysql> SELECT *
-> FROM stud1
-> LEFT OUTER JOIN stud2
-> ON stud1.roll_no = stud2.roll_no;
```

roll_no	name	student_id	department	roll_no	prn_no	mobile_no	year
1	XYZ	111	CS	NULL	NULL	NULL	NULL
2	PQR	112	CS	2	101	987654	Thir
3	SUV	113	CS	3	102	123456	Thir
4	LMN	114	CS	4	103	846372	Thir
5	GHI	115	CS	5	104	352718	Thir

```
5 rows in set (0.00 sec)

mysql> SELECT *
-> FROM stud1
-> RIGHT OUTER JOIN stud2
-> ON stud1.roll_no = stud2.roll_no;

+-----+-----+-----+-----+-----+-----+-----+-----+
| roll_no | name | student_id | department | roll_no | prn_no | mobile_no | year |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | PQR | 112 | CS | 2 | 101 | 987654 | Thir |
| 3 | SUU | 113 | CS | 3 | 102 | 123456 | Thir |
| 4 | LMN | 114 | CS | 4 | 103 | 846372 | Thir |
| 5 | GHI | 115 | CS | 5 | 104 | 352718 | Thir |
+-----+-----+-----+-----+-----+-----+-----+-----+

4 rows in set (0.00 sec)

mysql> select * from student;

+-----+-----+-----+-----+-----+-----+-----+-----+
| Seat_no | Roll_no | Name | Department | Year_of_Study | DOB | Mobile_no |
| Email |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 152700 | 203 | ABC | Computer | Third | 2003-05-14 | 102938475 |
6 | abc@gmail.com |
| 152701 | 272 | XYZ | Computer | Third | 2003-05-29 | 123456789 |
0 | abci@gmail.com |
+-----+-----+-----+-----+-----+-----+-----+-----+

2 rows in set (0.00 sec)

mysql> select *from student where email is null;
Empty set (0.00 sec)

mysql> select *from student where email is not null;

+-----+-----+-----+-----+-----+-----+-----+-----+
| Seat_no | Roll_no | Name | Department | Year_of_Study | DOB | Mobile_no |
| Email |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 152700 | 203 | ABC | Computer | Third | 2003-05-14 | 102938475 |
6 | abc@gmail.com |
| 152701 | 272 | XYZ | Computer | Third | 2003-05-29 | 123456789 |
0 | abci@gmail.com |
+-----+-----+-----+-----+-----+-----+-----+-----+

2 rows in set (0.00 sec)
```

C:\Windows\system32\cmd.exe

```
mysql> CREATE TABLE employee (  
->     emp_id INT,  
->     emp_name VARCHAR(50),  
->     join_date DATE,  
->     position VARCHAR(50),  
->     salary INT  
-> );  
Query OK, 0 rows affected (0.87 sec)  
  
mysql> INSERT INTO employee (emp_id, emp_name, join_date, position, salary)  
-> VALUES  
-> (1, 'XYZ', '2019-05-14', 'CEO', 500000),  
-> (2, 'SUU', '2017-08-29', 'HR', 87000),  
-> (3, 'LMN', '2019-09-09', 'HR', 75000),  
-> (4, 'EFG', '2011-06-09', 'CEO', 750000);  
Query OK, 4 rows affected (0.05 sec)  
Records: 4  Duplicates: 0  Warnings: 0
```

mysql> SELECT * FROM employee;

emp_id	emp_name	join_date	position	salary
1	XYZ	2019-05-14	CEO	500000
2	SUU	2017-08-29	HR	87000
3	LMN	2019-09-09	HR	75000
4	EFG	2011-06-09	CEO	750000

4 rows in set (0.00 sec)

mysql> SELECT * FROM employee WHERE emp_name = 'SUU';

emp_id	emp_name	join_date	position	salary
2	SUU	2017-08-29	HR	87000

1 row in set (0.00 sec)

mysql> SELECT salary FROM employee WHERE emp_name = 'SUU';

salary
87000

1 row in set (0.00 sec)

mysql> SELECT * FROM employee
-> WHERE salary > (SELECT salary FROM employee WHERE emp_name = 'SUU');

emp_id	emp_name	join_date	position	salary
1	XYZ	2019-05-14	CEO	500000
4	EFG	2011-06-09	CEO	750000

2 rows in set (0.01 sec)

mysql> SELECT * FROM employee
-> WHERE position = (SELECT position FROM employee WHERE emp_name = 'XYZ');

emp_id	emp_name	join_date	position	salary
1	XYZ	2019-05-14	CEO	500000
4	EFG	2011-06-09	CEO	750000

2 rows in set (0.00 sec)

mysql> SELECT * FROM employee
-> WHERE position IN (SELECT position FROM employee WHERE emp_name = 'XYZ');

emp_id	emp_name	join_date	position	salary
1	XYZ	2019-05-14	CEO	500000
4	EFG	2011-06-09	CEO	750000

2 rows in set (0.02 sec)