

```
mysql> CREATE DATABASE temp1 ;
```

```
Query OK, 1 row affected (0.04 sec)
```

```
mysql> create database temp2 ;
```

```
Query OK, 1 row affected (0.02 sec)
```

```
mysql> create database college;
```

```
Query OK, 1 row affected (0.02 sec)
```

```
mysql> drop database temp1 ;
```

```
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> drop database temp2 ;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> USE college ;
```

```
Database changed
```

```
mysql> CREATE TABLE student(
```

```
    -> id INT PRIMARY KEY,
```

```
    -> name VARCHAR(50),
```

```
    -> age INT NOT NULL
```

```
    -> );
```

```
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> INSERT INTO student VALUES(1,"AMAN",26);
```

```
Query OK, 1 row affected (0.03 sec)
```

```
mysql> INSERT INTO student VALUES(1,"AMAN",26);
```

```
ERROR 1062 (23000): Duplicate entry '1' for key 'student.PRIMARY'
```

```
mysql> INSERT INTO student VALUES(2,"SHRADHA",24);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> SELECT * FROM student;
```

```
+----+-----+----+
| id | name  | age |
+----+-----+----+
| 1  | AMAN  | 26  |
| 2  | SHRADHA | 24  |
+----+-----+----+
```

2 rows in set (0.01 sec)

```
mysql> CREATE DATABASE IF NOT EXISTS college
```

```
-> DROP DATABASE IF EXISTS college
```

```
-> SHOW DATABASES;
```

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 'DROP DATABASE IF EXISTS college

SHOW DATABASES' at line 2

```
mysql> SHOW TABLES ;
```

```
+-----+
| Tables_in_college |
+-----+
| student           |
+-----+
```

1 row in set (0.04 sec)

```
mysql> SHOW DATABASES ;
```

```
+-----+
| Database      |
```

```

+-----+
| college      |
| information_schema |
| mysql        |
| performance_schema |
| sakila       |
| sys          |
| testdb       |
| utresult     |
| utscores     |
| world        |
+-----+

```

10 rows in set (0.01 sec)

mysql> CREATE DATABASE student ;

Query OK, 1 row affected (0.02 sec)

mysql> USE student ;

Database changed

mysql> CREATE TABLE student_table(

-> rollno INT PRIMARY KEY,

-> name VARCHAR(50)

->);

Query OK, 0 rows affected (0.04 sec)

mysql> SHOW TABLES ;

```

+-----+
| Tables_in_student |
+-----+

```

```
| student_table |
```

```
+-----+
```

1 row in set (0.00 sec)

```
mysql> SHOW columns ;
```

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 '' at line 1

```
mysql> SELECT* FROM student_table ;
```

Empty set (0.00 sec)

```
mysql> INSERT INTO student_table(rollno , name)
```

```
-> VALUES
```

```
-> (101,"parit"),
```

```
-> (102,"osh");
```

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM student_table ;
```

```
+-----+-----+
```

```
| rollno | name |
```

```
+-----+-----+
```

```
| 101 | parit |
```

```
| 102 | osh |
```

```
+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> CREATE DATABASE XYZ;
```

Query OK, 1 row affected (0.02 sec)

```
mysql> USE XYZ ;
```

Database changed

```
mysql> CREATE TABLE employee(
```

```
    -> id INT PRIMARY KEY,
```

```
    -> name VARCHAR(50),
```

```
    -> salary INT);
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> SELECT* FROM employee ;
```

Empty set (0.00 sec)

```
mysql> INSERT INTO employee(id , name , salary)
```

```
    -> VALUES
```

```
    -> (1,"adam",25000),
```

```
    -> (2,"bob" ,30000),
```

```
    -> (3,"casey" , 40000);
```

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> SELECT* FROM employee ;
```

```
+----+-----+-----+
```

```
| id | name | salary |
```

```
+----+-----+-----+
```

```
| 1 | adam | 25000 |
```

```
| 2 | bob  | 30000 |
```

```
| 3 | casey | 40000 |
```

```
+----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> CREATE TABLE temp1(
```

```
-> id INT UNIQUE
```

```
-> );
```

Query OK, 0 rows affected (0.07 sec)

```
mysql> INSERT INTO temp1 VALUES(101);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO temp1 VALUES(101);
```

ERROR 1062 (23000): Duplicate entry '101' for key 'temp1.id'

```
mysql> CREATE DATABASE primary;
```

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 'primary' at line 1

```
mysql> CREATE DATABASE pri ;
```

Query OK, 1 row affected (0.01 sec)

```
mysql> USE pri ;
```

Database changed

```
mysql> CREATE TABLE temp1(
```

```
-> id INT,
```

```
-> name VARCHAR(50),
```

```
-> age INT,
```

```
-> city VARCHAR(50),
```

```
-> PRIMARY KEY(id)
```

```
-> );
```

Query OK, 0 rows affected (0.02 sec)

```
mysql> SELECT* FROM temp1 ;
```

Empty set (0.00 sec)

```
mysql> SHOW DATABASES ;
```

```
+-----+
| Database      |
+-----+
| college       |
| information_schema |
| mysql         |
| performance_schema |
| pri           |
| sakila        |
| student       |
| sys           |
| testdb        |
| utresult      |
| utscores      |
| world         |
| xyz           |
+-----+
```

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

```
mysql> SHOW TABLES ;
```

```
+-----+
| Tables_in_pri |
+-----+
| temp1         |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> CREATE TABLE emp(  
  -> id INT,  
  -> salary INT DEFAULT 25000  
  -> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> INSERT INTO emp (id , salary)  
  -> VALUES  
  -> (1);
```

ERROR 1136 (21S01): Column count doesn't match value count at row 1

```
mysql> INSERT INTO emp(id)  
  -> VALUES  
  -> (1),  
  -> (2);
```

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM emp;
```

```
+-----+-----+  
| id  | salary |  
+-----+-----+  
|  1  | 25000 |  
|  2  | 25000 |  
+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> CREATE DATABASE college ;
```

ERROR 1007 (HY000): Can't create database 'college'; database exists

```
mysql> DROP college ;
```


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 'college' at line 1

```
mysql> DROP college ;
```

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 'college' at line 1

```
mysql> DROP DATABASE college ;
```

Query OK, 1 row affected (0.04 sec)

```
mysql> CREATE DATABASE college ;
```

Query OK, 1 row affected (0.02 sec)

```
mysql> USE college ;
```

Database changed

```
mysql> CREATE TABLE student(
```

```
    -> rollno INT ,
```

```
    -> name VARCHAR(50),
```

```
    -> marks INT NOT NULL ,
```

```
    -> grade VARCHAR(50),
```

```
    -> city VARCHAR(20)
```

```
    -> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> INSERT INTO student
```

```
    -> (rollno,name,marks,grade,ciry)
```

```
    -> VALUES
```

```
    -> (101,"anil",99,"O","Bareilly"),
```

```
    -> (102,"bhumika",93,"O","Mumbai"),
```

```
    -> (103,"chetan",85,"A","Mumbai"),
```

```
    -> (104,"dhruv",96,"O","Delhi"),
```

-> (105,"emanuel",12,"F",Delhi),

-> (106,"farah",82,"B",Delhi);

ERROR 1054 (42S22): Unknown column 'ciry' in 'field list'

mysql> INSERT INTO student

-> -> (rollno,name,marks,grade,ciry)

-> -> VALUES

-> -> (101,"anil",99,"O","Bareilly"),

-> -> (102,"bhumika",93,"O","Mumbai"),

-> -> (103,"chetan",85,"A","Mumbai"),

-> -> (104,"dhruv",96,"O","Delhi"),

-> -> (105,"emanuel",12,"F",Delhi),

-> (rollno,name,marks,grade,city)

->

-> SELECT * FROM student ;

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 '-> (rollno,name,marks,grade,ciry)

-> VALUES

-> (101,"anil",99,"O","Barei' at line 2

mysql> INSERT INTO student

-> (rollno,name,marks,grade,city)

-> VALUES

-> (101,"anil",99,"O","Bareilly"),

-> (102,"bhumika",93,"O","Mumbai"),

-> (103,"chetan",85,"A","Mumbai"),

-> (104,"dhruv",96,"O","Delhi"),

-> (105,"emanuel",12,"F",Delhi),

-> (106,"farah",82,"B",Delhi);

ERROR 1054 (42S22): Unknown column 'Delhi' in 'field list'

mysql> INSERT INTO student

```
-> (rollno,name,marks,grade,city)
-> VALUES
-> (101,"anil",99,"O","Bareilly"),
-> (102,"bhumika",93,"O","Mumbai"),
-> (103,"chetan",85,"A","Mumbai"),
-> (104,"dhruv",96,"O","Delhi"),
-> (105,"emanuel",12,"F",Delhi),
->
->
->
->
```

```
-> INSERT INTO student
```

```
-> (rollno,name,marks,grade,city)
```

```
-> VALUES
```

```
-> (101,"anil",99,"O","Bareilly"),
-> (102,"bhumika",93,"O","Mumbai"),
-> (103,"chetan",85,"A","Mumbai"),
-> (104,"dhruv",96,"O","Delhi"),
-> (105,"emanuel",12,"F","Delhi"),
-> (106,"farah",82,"B","Delhi");
```

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 '-> (rollno,name,marks,grade,city)

```
-> VALUES
```

```
-> (101,"anil",99,"O","Barei' at line 2
```

```
mysql> INSERT INTO student
```

```
-> (rollno,name,marks,grade,city)
```

```
-> VALUES
```

```
-> (101,"anil",99,"O","Bareilly"),
-> (102,"bhumika",93,"O","Mumbai"),
```

```
-> (103,"chetan",85,"A","Mumbai"),
-> (104,"dhruv",96,"O","Delhi"),
-> (105,"emanuel",12,"F","Delhi"),
-> (106,"farah",82,"B","Delhi");
```

Query OK, 6 rows affected (0.02 sec)

Records: 6 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+-----+-----+-----+
| rollno | name   | marks | grade | city   |
+-----+-----+-----+-----+-----+
| 101 | anil   | 99 | O   | Bareilly |
| 102 | bhumika | 93 | O   | Mumbai |
| 103 | chetan | 85 | A   | Mumbai |
| 104 | dhruv  | 96 | O   | Delhi |
| 105 | emanuel | 12 | F   | Delhi |
| 106 | farah  | 82 | B   | Delhi |
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> SELECT name,marks FROM student ;
```

```
+-----+-----+
| name   | marks |
+-----+-----+
| anil   | 99 |
| bhumika | 93 |
| chetan | 85 |
| dhruv  | 96 |
| emanuel | 12 |
```

```
| farah | 82 |
```

```
+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT city FROM student ;
```

```
+-----+
```

```
| city |
```

```
+-----+
```

```
| Bareilly |
```

```
| Mumbai |
```

```
| Delhi |
```

```
+-----+
```

3 rows in set (0.01 sec)

```
mysql> SELECT * FROM student WHERE marks > 80
```

```
-> SELECT * FROM student WHERE marks > 80;
```

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 'SELECT * FROM student WHERE marks > 80' at line 2

```
mysql> SELECT * FROM student WHERE marks > 80 ;
```

```
+-----+-----+-----+-----+-----+
```

```
| rollno | name | marks | grade | city |
```

```
+-----+-----+-----+-----+-----+
```

```
| 101 | anil | 99 | O | Bareilly |
```

```
| 102 | bhumika | 93 | O | Mumbai |
```

```
| 103 | chetan | 85 | A | Mumbai |
```

```
| 104 | dhruv | 96 | O | Delhi |
```

```
| 106 | farah | 82 | B | Delhi |
```

```
+-----+-----+-----+-----+-----+
```

5 rows in set (0.01 sec)

```
mysql> SELECT * FROM student WHERE marks > 80 AND city = "Bareilly" ;
```

rollno	name	marks	grade	city
101	anil	99	O	Bareilly

1 row in set (0.00 sec)

```
mysql> SELECT * FROM student WHERE marks+10 > 80 ;
```

rollno	name	marks	grade	city
101	anil	99	O	Bareilly
102	bhumika	93	O	Mumbai
103	chetan	85	A	Mumbai
104	dhruv	96	O	Delhi
106	farah	82	B	Delhi

5 rows in set (0.01 sec)

```
mysql> SELECT * FROM students WHERE marks>90 OR city = "Bareilly" ;
```

ERROR 1146 (42S02): Table 'college.students' doesn't exist

```
mysql> SELECT * FROM student WHERE marks>90 OR city = "Bareilly" ;
```

rollno	name	marks	grade	city
101	anil	99	O	Bareilly

	102		bhumika		93		O		Mumbai	
	104		dhruv		96		O		Delhi	

```
+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM student WHERE city IN ("Delhi","Mumbai");
```

```
+-----+-----+-----+-----+-----+
```

	rollno		name		marks		grade		city	
--	--------	--	------	--	-------	--	-------	--	------	--

```
+-----+-----+-----+-----+-----+
```

	102		bhumika		93		O		Mumbai	
--	-----	--	---------	--	----	--	---	--	--------	--

	103		chetan		85		A		Mumbai	
--	-----	--	--------	--	----	--	---	--	--------	--

	104		dhruv		96		O		Delhi	
--	-----	--	-------	--	----	--	---	--	-------	--

	105		emanuel		12		F		Delhi	
--	-----	--	---------	--	----	--	---	--	-------	--

	106		farah		82		B		Delhi	
--	-----	--	-------	--	----	--	---	--	-------	--

```
+-----+-----+-----+-----+-----+
```

5 rows in set (0.01 sec)

```
mysql> SELECT * FROM student WHERE city IN ("Delhi","Mumbai" ,"bly");
```

```
+-----+-----+-----+-----+-----+
```

	rollno		name		marks		grade		city	
--	--------	--	------	--	-------	--	-------	--	------	--

```
+-----+-----+-----+-----+-----+
```

	102		bhumika		93		O		Mumbai	
--	-----	--	---------	--	----	--	---	--	--------	--

	103		chetan		85		A		Mumbai	
--	-----	--	--------	--	----	--	---	--	--------	--

	104		dhruv		96		O		Delhi	
--	-----	--	-------	--	----	--	---	--	-------	--

	105		emanuel		12		F		Delhi	
--	-----	--	---------	--	----	--	---	--	-------	--

	106		farah		82		B		Delhi	
--	-----	--	-------	--	----	--	---	--	-------	--

```
+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT * FROM student WHERE city NOT IN("Delhi","Mumbai");
```

```
+-----+-----+-----+-----+
| rollno | name | marks | grade | city |
+-----+-----+-----+-----+
| 101 | anil | 99 | O | Bareilly |
+-----+-----+-----+-----+
```

1 row in set (0.00 sec)

```
mysql> SELECT * FROM student LIMIT 3 ;
```

```
+-----+-----+-----+-----+
| rollno | name | marks | grade | city |
+-----+-----+-----+-----+
| 101 | anil | 99 | O | Bareilly |
| 102 | bhumika | 93 | O | Mumbai |
| 103 | chetan | 85 | A | Mumbai |
+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM student WHERE marks > 93 LIMIT 3 ;
```

```
+-----+-----+-----+-----+
| rollno | name | marks | grade | city |
+-----+-----+-----+-----+
| 101 | anil | 99 | O | Bareilly |
| 104 | dhruv | 96 | O | Delhi |
+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> SELECT * FROM student ORDER BY city ASC ;
```

```
+-----+-----+-----+-----+
```


rollno	name	marks	grade	city
101	anil	99	O	Bareilly
104	dhruv	96	O	Delhi
105	emanuel	12	F	Delhi
106	farah	82	B	Delhi
102	bhumika	93	O	Mumbai
103	chetan	85	A	Mumbai

6 rows in set (0.00 sec)

```
mysql> SELECT rollno , name FROM student ORDER BY name ASC ;
```

rollno	name
101	anil
102	bhumika
103	chetan
104	dhruv
105	emanuel
106	farah

6 rows in set (0.00 sec)

```
mysql> SELECT * FROM student ORDER BY marks ASC LIMIT 3 ;
```

rollno	name	marks	grade	city
105	emanuel	12	F	Delhi

	106		farah		82		B		Delhi	
	103		chetan		85		A		Mumbai	

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

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM student ORDER BY marks DES LIMIT 3 ;
```

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 'DES LIMIT 3' at line 1

```
mysql> SELECT * FROM student ORDER BY marks DSC LIMIT 3 ;
```

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 'DSC LIMIT 3' at line 1

```
mysql> SELECT * FROM student ORDER BY marks DEC LIMIT 3 ;
```

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 'DEC LIMIT 3' at line 1

```
mysql> SELECT * FROM student ORDER BY marks DESC LIMIT 3 ;
```

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

	rollno		name		marks		grade		city	
--	--------	--	------	--	-------	--	-------	--	------	--

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

	101		anil		99		O		Bareilly	
--	-----	--	------	--	----	--	---	--	----------	--

	104		dhruv		96		O		Delhi	
--	-----	--	-------	--	----	--	---	--	-------	--

	102		bhumika		93		O		Mumbai	
--	-----	--	---------	--	----	--	---	--	--------	--

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

3 rows in set (0.00 sec)

```
mysql> SELECT MAX(marks) FROM student ;
```

+-----+

	MAX(marks)	
--	------------	--

+-----+

	99	
--	----	--

+-----+

1 row in set (0.01 sec)

```
mysql> SELECT MIN(marks) FROM student ;
```

```
+-----+  
| MIN(marks) |  
+-----+  
|      12 |  
+-----+
```

1 row in set (0.01 sec)

```
mysql> SELECT AVG(marks) from student ;
```

```
+-----+  
| AVG(marks) |  
+-----+  
|  77.8333 |  
+-----+
```

1 row in set (0.01 sec)

```
mysql> SELECT COUNT(rollno) FROM student ;
```

```
+-----+  
| COUNT(rollno) |  
+-----+  
|          6 |  
+-----+
```

1 row in set (0.01 sec)

```
mysql> SELECT SUM(marks) FROM student ;
```

```
+-----+  
| SUM(marks) |
```

```
+-----+
```

```
|    467 |
```

```
+-----+
```

1 row in set (0.00 sec)

```
mysql> SELECT city , COUNT(name) FROM student ;
```

ERROR 1140 (42000): In aggregated query without GROUP BY, expression #1 of SELECT list contains nonaggregated column 'college.student.city'; this is incompatible with sql_mode=only_full_group_by

```
mysql> SELECT city , COUNT(name) FROM student GROUP BY city ;
```

```
+-----+-----+
```

```
| city   | COUNT(name) |
```

```
+-----+-----+
```

```
| Bareilly |      1 |
```

```
| Mumbai  |      2 |
```

```
| Delhi   |      3 |
```

```
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT city , AVG(marks) FROM student GROUP BY city ;
```

```
+-----+-----+
```

```
| city   | AVG(marks) |
```

```
+-----+-----+
```

```
| Bareilly | 99.0000 |
```

```
| Mumbai  | 89.0000 |
```

```
| Delhi   | 63.3333 |
```

```
+-----+-----+
```

3 rows in set (0.01 sec)

```
mysql> SELECT city , AVG(marks) FROM student GROUP BY city ORDER BY marks ;
```

ERROR 1055 (42000): Expression #1 of ORDER BY clause is not in GROUP BY clause and contains nonaggregated column 'college.student.marks' which is not functionally dependent on columns in GROUP BY clause; this is incompatible with sql_mode=only_full_group_by

```
mysql> SELECT city , AVG(marks) FROM student GROUP BY city ORDER BY city ;
```

```
+-----+-----+
| city  | AVG(marks) |
+-----+-----+
| Bareilly | 99.0000 |
| Delhi   | 63.3333 |
| Mumbai  | 89.0000 |
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT city , AVG(marks) FROM student GROUP BY city ORDER BY AVG(marks) DESC ;
```

```
+-----+-----+
| city  | AVG(marks) |
+-----+-----+
| Bareilly | 99.0000 |
| Mumbai  | 89.0000 |
| Delhi   | 63.3333 |
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> CREATE DATABASE METHOD ;
```

Query OK, 1 row affected (0.02 sec)

```
mysql> USE METHOD ;
```

Database changed

```
mysql> CREATE TABLE payment(
```

```
-> customer_id INT PRIMARY KEY,
-> customer VARCHAR(50) ,
-> mode VARCHAR(50) ,
-> city VARCHAR(50)
-> );
```

Query OK, 0 rows affected (0.05 sec)

```
mysql> INSERT INTO payment(customer_id , customer , mode , city)
```

```
-> VALUES
```

```
-> (101 , "A" , "netbanking" , "portland"),
-> (102 , "B" , "creditcard" , "miami"),
-> (103 , "C" , "creditcard" , "seattle"),
-> (104 , "D" , "netbanking" , "denver"),
-> (105 , "E" , "creditcard" , "new orleans"),
-> (106 , "F" , "debitcard" , "minneapolis"),
-> (107 , "G" , "debitccard" , "phoenix"),
-> (108 , "H" , "netbanking" , "boston" ),
-> (109 , "I" , "netbanking" , "nashville" ),
-> (110 , "J" , "creditcard" , "boston" );
```

Query OK, 10 rows affected (0.02 sec)

Records: 10 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM payment ;
```

```
+-----+-----+-----+-----+
| customer_id | customer | mode    | city    |
+-----+-----+-----+-----+
| 101 | A      | netbanking | portland |
| 102 | B      | creditcard | miami    |
| 103 | C      | creditcard | seattle  |
```

	104	D		netbanking		denver	
	105	E		creditcard		new orleans	
	106	F		debitcard		minneapolis	
	107	G		debitccard		phoenix	
	108	H		netbanking		boston	
	109	I		netbanking		nashville	
	110	J		creditcard		boston	

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

10 rows in set (0.00 sec)

mysql> SELECT mode , COUNT(mode) FROM payment GROUP BY mode ;

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

	mode		COUNT(mode)	
--	------	--	-------------	--

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

	netbanking		4	
--	------------	--	---	--

	creditcard		4	
--	------------	--	---	--

	debitcard		1	
--	-----------	--	---	--

	debitccard		1	
--	------------	--	---	--

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

4 rows in set (0.00 sec)

mysql> USE college ;

Database changed

mysql> SELECT * FROM college ;

ERROR 1146 (42S02): Table 'college.college' doesn't exist

mysql> SHOW TABLE ;

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 '' at line 1

mysql> SHOW TABLE ;

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 '' at line 1

mysql> SHOW TABLES ;

```
+-----+
| Tables_in_college |
+-----+
| student          |
+-----+
```

1 row in set (0.01 sec)

mysql> SELECT * FROM student ;

```
+-----+-----+-----+-----+-----+
| rollno | name   | marks | grade | city   |
+-----+-----+-----+-----+-----+
| 101 | anil   | 99 | O   | Bareilly |
| 102 | bhumika | 93 | O   | Mumbai |
| 103 | chetan | 85 | A   | Mumbai |
| 104 | dhruv  | 96 | O   | Delhi |
| 105 | emanuel | 12 | F   | Delhi |
| 106 | farah  | 82 | B   | Delhi |
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

mysql> SELECT grade FROM student GROUP BY grade ;

```
+-----+
| grade |
+-----+
| O      |
| A      |
```



```
| F |
| B |
+-----+
```

4 rows in set (0.00 sec)

```
mysql> SELECT grade , COUNT(grade) FROM student GROUP BY grade ;
```

```
+-----+-----+
| grade | COUNT(grade) |
+-----+-----+
| O    | 3           |
| A    | 1           |
| F    | 1           |
| B    | 1           |
+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> SELECT city
```

```
-> FROM student
```

```
-> SELECT grade FROM student GROUP BY grade ;
```

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 'SELECT grade FROM student GROUP BY grade' at line 3

```
mysql> SELECT city , COUNT(rollno) FROM student GROUP BY city HAVING MAX(marks) > 90 ;
```

```
+-----+-----+
| city  | COUNT(rollno) |
+-----+-----+
| Bareilly | 1           |
| Mumbai  | 2           |
| Delhi   | 3           |
```

```
+-----+-----+
```

3 rows in set (0.01 sec)

```
mysql> SELECT city FROM student WHERE grade = "A" HAVING MAX(marks) > 90 ;
```

ERROR 1140 (42000): In aggregated query without GROUP BY, expression #1 of SELECT list contains nonaggregated column 'college.student.city'; this is incompatible with sql_mode=only_full_group_by

```
mysql> SELECT city FROM student WHERE grade = "A" GROUP BY city HAVING MAX(marks) > 90 ;
```

Empty set (0.00 sec)

```
mysql> SELECT city FROM student WHERE grade = "A" GROUP BY city HAVING MAX(marks) > 80 ;
```

```
+-----+
```

```
| city |
```

```
+-----+
```

```
| Mumbai |
```

```
+-----+
```

1 row in set (0.00 sec)

```
mysql> SELECT city
```

```
-> FROM student WHERE grade = "A" GROUP BY city HAVING MAX(marks) > 80 ;
```

```
+-----+
```

```
| city |
```

```
+-----+
```

```
| Mumbai |
```

```
+-----+
```

1 row in set (0.00 sec)

```
mysql> UPDATE student SET grade = "OUTSTANDING"
```

```
-> WHERE grade = "A" ;
```

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> SELECT * FROM student ;
```

rollno	name	marks	grade	city
101	anil	99	O	Bareilly
102	bhumika	93	O	Mumbai
103	chetan	85	OUTSTANDING	Mumbai
104	dhruv	96	O	Delhi
105	emanuel	12	F	Delhi
106	farah	82	B	Delhi

6 rows in set (0.00 sec)

```
mysql> UPDATE student SET grade = "A" WHERE grade = "OUTSTANDING" ;
```

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> SELECT* FROM student ;
```

rollno	name	marks	grade	city
101	anil	99	O	Bareilly
102	bhumika	93	O	Mumbai
103	chetan	85	A	Mumbai
104	dhruv	96	O	Delhi
105	emanuel	12	F	Delhi
106	farah	82	B	Delhi

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> UPDATE student SET grade = "OUTSTANDING" WHERE grade = "O" ;
```

Query OK, 3 rows affected (0.02 sec)

Rows matched: 3 Changed: 3 Warnings: 0

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+-----+-----+-----+
```

```
| rollno | name   | marks | grade   | city   |
```

```
+-----+-----+-----+-----+-----+
```

```
| 101 | anil   | 99 | OUTSTANDING | Bareilly |
```

```
| 102 | bhumika | 93 | OUTSTANDING | Mumbai   |
```

```
| 103 | chetan | 85 | A          | Mumbai   |
```

```
| 104 | dhruv  | 96 | OUTSTANDING | Delhi    |
```

```
| 105 | emanuel | 12 | F          | Delhi    |
```

```
| 106 | farah  | 82 | B          | Delhi    |
```

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> UPDATE student SET marks = 91 WHERE marks = 12 ;
```

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+-----+-----+-----+
```

```
| rollno | name   | marks | grade   | city   |
```

```
+-----+-----+-----+-----+-----+
```

```
| 101 | anil   | 99 | OUTSTANDING | Bareilly |
```

	102		bhumika		93		OUTSTANDING		Mumbai	
	103		chetan		85		A		Mumbai	
	104		dhruv		96		OUTSTANDING		Delhi	
	105		emanuel		91		F		Delhi	
	106		farah		82		B		Delhi	

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> UPDATE student SET grade = "OUTSTANDING" WHERE grade = "F" ;
```

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> SELECT * FROM student ;
```

	rollno		name		marks		grade		city	
--	--------	--	------	--	-------	--	-------	--	------	--

```
+-----+-----+-----+-----+-----+
```

	101		anil		99		OUTSTANDING		Bareilly	
	102		bhumika		93		OUTSTANDING		Mumbai	
	103		chetan		85		A		Mumbai	
	104		dhruv		96		OUTSTANDING		Delhi	
	105		emanuel		91		OUTSTANDING		Delhi	
	106		farah		82		B		Delhi	

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> UPDATE student SET grade = "A" WHERE marks BETWEEN 80 AND 90 ;
```

Query OK, 1 row affected (0.02 sec)

Rows matched: 2 Changed: 1 Warnings: 0

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+-----+-----+-----+
| rollno | name   | marks | grade   | city   |
+-----+-----+-----+-----+-----+
| 101 | anil   | 99 | OUTSTANDING | Bareilly |
| 102 | bhumika | 93 | OUTSTANDING | Mumbai |
| 103 | chetan | 85 | A         | Mumbai |
| 104 | dhruv  | 96 | OUTSTANDING | Delhi |
| 105 | emanuel | 91 | OUTSTANDING | Delhi |
| 106 | farah  | 82 | A         | Delhi |
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> UPDATE marks SET marks = marks + 1 ;
```

ERROR 1146 (42S02): Table 'college.marks' doesn't exist

```
mysql> UPDATE student SET marks = marks + 1 ;
```

Query OK, 6 rows affected (0.02 sec)

Rows matched: 6 Changed: 6 Warnings: 0

```
mysql> SELECT * FROM row ;
```

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 'row' at line 1

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+-----+-----+-----+
| rollno | name   | marks | grade   | city   |
+-----+-----+-----+-----+-----+
| 101 | anil   | 100 | OUTSTANDING | Bareilly |
| 102 | bhumika | 94 | OUTSTANDING | Mumbai |
| 103 | chetan | 86 | A         | Mumbai |
```

	104		dhruv		97		OUTSTANDING		Delhi	
	105		emanuel		92		OUTSTANDING		Delhi	
	106		farah		83		A		Delhi	

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> CREATE TABLE dept(
```

```
-> id INT PRIMARY KEY ,
```

```
-> name VARCHAR(50)
```

```
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> CREATE TABLE teacher(
```

```
-> id INT PRIMARY KEY ,
```

```
-> name VARCHAR(50),
```

```
-> dept_id INT,
```

```
-> FOREIGN KEY (dept_id) REFERENCES dept(id)
```

```
-> );
```

Query OK, 0 rows affected (0.07 sec)

```
mysql> INSERT INTO dept(id , name)
```

```
-> VALUES
```

```
-> (101,"science"),
```

```
-> (102,"english"),
```

```
-> (103,"hindi");
```

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM dept ;
```

```

+----+-----+
| id | name |
+----+-----+
| 101 | science |
| 102 | english |
| 103 | hindi |
+----+-----+
3 rows in set (0.00 sec)

```

```

mysql> INSERT INTO teacher(id , name , dept_id)
      -> VALUES
      -> (101,"adam",101),
      -> (102,"bob",103),
      -> (103,"casey",102),
      -> (104,"donald",102);

```

Query OK, 4 rows affected (0.02 sec)

Records: 4 Duplicates: 0 Warnings: 0

```

mysql> SELECT * FROM teacher ;

```

```

+----+-----+-----+
| id | name | dept_id |
+----+-----+-----+
| 101 | adam | 101 |
| 102 | bob | 103 |
| 103 | casey | 102 |
| 104 | donald | 102 |
+----+-----+-----+
4 rows in set (0.00 sec)

```



```
mysql> SELECT* FROM student ;
```

```
+-----+-----+-----+-----+-----+
| rollno | name   | marks | grade   | city   |
+-----+-----+-----+-----+-----+
| 101 | anil   | 100 | OUTSTANDING | Bareilly |
| 102 | bhumika | 94 | OUTSTANDING | Mumbai |
| 103 | chetan | 86 | A         | Mumbai |
| 104 | dhruv  | 97 | OUTSTANDING | Delhi |
| 105 | emanuel | 92 | OUTSTANDING | Delhi |
| 106 | farah  | 83 | A         | Delhi |
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> ALTER TABLE student
```

```
-> ADD COLUMN age INT ;
```

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> INSERT INTO student
```

```
-> VALUES
```

```
-> V;
```

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 'V' at line 3

```
mysql> ALTER TABLE student
```

```
-> DROP COLUMN age ;
```

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> ALTER TABLE student RENAME TO students ;
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> SELECT * FROM students ;
```

rollno	name	marks	grade	city
101	anil	100	OUTSTANDING	Bareilly
102	bhumika	94	OUTSTANDING	Mumbai
103	chetan	86	A	Mumbai
104	dhruv	97	OUTSTANDING	Delhi
105	emanuel	92	OUTSTANDING	Delhi
106	farah	83	A	Delhi

6 rows in set (0.00 sec)

```
mysql> ALTER TABLE student CHANGE COLUMN name full_name VARCHAR(50) ;
```

ERROR 1146 (42S02): Table 'college.student' doesn't exist

```
mysql> ALTER TABLE students CHANGE COLUMN name full_name VARCHAR(50) ;
```

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM students ;
```

rollno	full_name	marks	grade	city
101	anil	100	OUTSTANDING	Bareilly
102	bhumika	94	OUTSTANDING	Mumbai
103	chetan	86	A	Mumbai
104	dhruv	97	OUTSTANDING	Delhi

	105		emanuel		92		OUTSTANDING		Delhi	
	106		farah		83		A		Delhi	

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> DELETE FROM students WHERE marks < 80 ;
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> SELECT * FROM students ;
```

```
+-----+-----+-----+-----+-----+
```

	rollno		full_name		marks		grade		city	
--	--------	--	-----------	--	-------	--	-------	--	------	--

```
+-----+-----+-----+-----+-----+
```

	101		anil		100		OUTSTANDING		Bareilly	
	102		bhumika		94		OUTSTANDING		Mumbai	
	103		chetan		86		A		Mumbai	
	104		dhruv		97		OUTSTANDING		Delhi	
	105		emanuel		92		OUTSTANDING		Delhi	
	106		farah		83		A		Delhi	

```
+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> SELECT* FROM dept ;
```

```
+----+-----+
```

	id		name	
--	----	--	------	--

```
+----+-----+
```

	101		science	
	102		english	
	103		hindi	

```
+----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM teacher ;
```

```
+----+-----+-----+
| id | name  | dept_id |
+----+-----+-----+
| 101 | adam  | 101     |
| 102 | bob   | 103     |
| 103 | casey | 102     |
| 104 | donald | 102     |
+----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> SELECT id FROM dept INNER JOIN teacher ON dept.id = teacher.id ;
```

ERROR 1052 (23000): Column 'id' in field list is ambiguous

```
mysql> CREATE TABLE student ;
```

ERROR 4028 (HY000): A table must have at least one visible column.

```
mysql> CREATE TABLE student ;
```

ERROR 4028 (HY000): A table must have at least one visible column.

```
mysql> CREATE DATABASE joins ;
```

Query OK, 1 row affected (0.02 sec)

```
mysql> USE joins ;
```

Database changed

```
mysql> CREATE TABLE student
```

```
-> VALUE
```

```
-> (student_id , name) ;
```

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 'VALUE

(student_id , name)' at line 2

```
mysql> CREATE TABLE student(
```

```
-> student_id INT ,
```

```
-> name VARCHAR(50);
```

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 '' at line 3

```
mysql> CREATE TABLE student(
```

```
-> student_id INT,
```

```
-> name VARCHAR(50)
```

```
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> INSERT INTO student(student_id , name)
```

```
-> VALUES
```

```
-> (101 , "adam"),
```

```
-> (102 , "bob"),
```

```
-> (103 , "casey");
```

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+
| student_id | name |
+-----+-----+
| 101 | adam |
| 102 | bob |
| 103 | casey |
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> CREATE TABLE course(  
  -> student_id VARCHAR(50),  
  -> course VARCHAR(50)  
  -> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> INSERT INTO course(student_id , course)  
  -> VALUES  
  -> (102 , "english"),  
  -> (105 , "math"),  
  -> (103 , "science"),  
  -> (107 , "computer science");
```

Query OK, 4 rows affected (0.02 sec)

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM course ;
```

```
+-----+-----+  
| student_id | course      |  
+-----+-----+  
| 102      | english     |  
| 105      | math        |  
| 103      | science     |  
| 107      | computer science |  
+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> SELECT * FROM student ;
```

```
+-----+-----+
```

```
| student_id | name |
```

```
+-----+-----+
```

```
|    101 | adam |
```

```
|    102 | bob  |
```

```
|    103 | casey |
```

```
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM student LEFT JOIN course ON student.student_id = course.student_id ;
```

```
+-----+-----+-----+-----+
```

```
| student_id | name | student_id | course |
```

```
+-----+-----+-----+-----+
```

```
|    101 | adam | NULL      | NULL   |
```

```
|    102 | bob  | 102       | english |
```

```
|    103 | casey | 103       | science |
```

```
+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM student RIGHT JOIN course ON student.student_id = course.student_id ;
```

```
+-----+-----+-----+-----+
```

```
| student_id | name | student_id | course      |
```

```
+-----+-----+-----+-----+
```

```
|    102 | bob  | 102       | english     |
```

```
|   NULL | NULL | 105       | math        |
```

```
|    103 | casey | 103       | science     |
```

```
|   NULL | NULL | 107       | computer science |
```

```
+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> SELECT * FROM student FULL JOIN course ON student.student_id = course.student_id ;
```

```
ERROR 1054 (42S22): Unknown column 'student.student_id' in 'on clause'
```

```
mysql> SELECT * FROM student FULL OUTER JOIN course ON student.student_id = course.student_id ;
```

```
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 'OUTER JOIN course ON student.student_id = course.student_id' at line 1
```

```
mysql> SELECT * FROM student as a LEFT JOIN course as b ON a.id = b.id
```

```
-> UNION
```

```
-> SELECT * FROM student as a RIGHT JOIN course as b ON a.id = b.id ;
```

```
ERROR 1054 (42S22): Unknown column 'a.id' in 'on clause'
```

```
mysql> SELECT * FROM student RIGHT JOIN course ON student.student_id = course.student_id
```

```
-> UNION
```

```
-> SELECT * FROM student LEFT JOIN course ON student.student_id = course.student_id ;
```

```
+-----+-----+-----+-----+
| student_id | name | student_id | course      |
+-----+-----+-----+-----+
| 102 | bob | 102 | english |
| NULL | NULL | 105 | math |
| 103 | casey | 103 | science |
| NULL | NULL | 107 | computer science |
| 101 | adam | NULL | NULL |
+-----+-----+-----+-----+
```

```
5 rows in set (0.01 sec)
```

```
mysql> SELECT * FROM student LEFT JOIN course WHERE student.student_id = course.student_id
```

```
-> ^C
```

```
mysql> SELECT * FROM student LEFT JOIN course ON student.student_id = course.student_id
```

```
-> WHERE
```

```
-> course.student_id IS NULL ;
```



```

+-----+-----+-----+-----+
| student_id | name | student_id | course |
+-----+-----+-----+-----+
|    101 | adam | NULL      | NULL   |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

```

```

mysql> SELECT * FROM student RIGHT JOIN course ON student.student_id = course.student_id
-> WHERE
-> student.student_id IS NULL ;

```

```

+-----+-----+-----+-----+
| student_id | name | student_id | course      |
+-----+-----+-----+-----+
|    NULL | NULL | 105      | math        |
|    NULL | NULL | 107      | computer science |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

```

```

mysql> SHOW TABLE employee ;

```

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 'employee' at line 1

```

mysql> SHOW TABLES ;

```

```

+-----+
| Tables_in_joins |
+-----+
| course          |
| student         |
+-----+
2 rows in set (0.01 sec)

```

```
mysql> CREATE TABLE employee(
```

```
-> id INT PRIMARY KEY ,
```

```
-> name VARCHAR(50) ,
```

```
-> manger_id INT
```

```
-> );
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> INSERT INTO employee(id , name , manager_id)
```

```
-> VALUES
```

```
-> (101 , "adam" , 103),
```

```
-> (102 , "bob" , 104),
```

```
-> (103 , "casey" , NULL),
```

```
-> (104 , "donald" , 103);
```

```
ERROR 1054 (42S22): Unknown column 'manager_id' in 'field list'
```

```
mysql> ALTER TABLE employee CHANGE column manger_id manager_id INT ;
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO employee(id , name , manager_id)
```

```
-> VALUES
```

```
-> (101 , "adam" , 103),
```

```
-> (102 , "bob" , 104),
```

```
-> (103 , "casey" , NULL),
```

```
-> (104 , "donald" , 103);
```

```
Query OK, 4 rows affected (0.01 sec)
```

```
Records: 4 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT* FROM employee ;
```

```

+----+-----+-----+
| id | name  | manager_id |
+----+-----+-----+
| 101 | adam  | 103 |
| 102 | bob   | 104 |
| 103 | casey | NULL |
| 104 | donald | 103 |
+----+-----+-----+
4 rows in set (0.00 sec)

```

```

mysql> SELECT * FROM employee JOIN employee
      -> ON employee.id = employee.manager_id ;
ERROR 1066 (42000): Not unique table/alias: 'employee'

mysql> SELECT *
      -> FROM employee AS a
      -> JOIN employee AS b
      -> ON a.id = a.manager_id ;
Empty set (0.00 sec)

```

```

mysql> SELECT name FROM employee
      -> UNION
      -> SELECT name FROM employee ;
+-----+
| name  |
+-----+
| adam  |
| bob   |
| casey |
| donald |

```

```
+-----+
```

4 rows in set (0.00 sec)

```
mysql> SHOW TABLES ;
```

```
+-----+
```

```
| Tables_in_joins |
```

```
+-----+
```

```
| course      |
```

```
| employee    |
```

```
| student     |
```

```
+-----+
```

3 rows in set (0.01 sec)

```
mysql> SELECT* FROM student ;
```

```
+-----+-----+
```

```
| student_id | name |
```

```
+-----+-----+
```

```
|    101 | adam |
```

```
|    102 | bob  |
```

```
|    103 | casey |
```

```
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> USE college ;
```

Database changed

```
mysql> SHOW TABLES ;
```

```
+-----+
```

```
| Tables_in_college |
```

```
+-----+
```

dept
students
teacher

+-----+

3 rows in set (0.00 sec)

mysql> SELECT* FROM students ;

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

rollno	full_name	marks	grade	city
--------	-----------	-------	-------	------

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

101	anil	100	OUTSTANDING	Bareilly
102	bhumika	94	OUTSTANDING	Mumbai
103	chetan	86	A	Mumbai
104	dhruv	97	OUTSTANDING	Delhi
105	emanuel	92	OUTSTANDING	Delhi
106	farah	83	A	Delhi

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

6 rows in set (0.00 sec)

mysql> SELECT AVG(marks) FROM students ;

+-----+

AVG(marks)

+-----+

92.0000

+-----+

1 row in set (0.00 sec)

mysql> SELECT name , marks WHERE marks >= 92 ;

ERROR 1054 (42S22): Unknown column 'name' in 'field list'

```
mysql> SELECT name , marks FROM students WHERE marks >= 92 ;
```

```
ERROR 1054 (42S22): Unknown column 'name' in 'field list'
```

```
mysql> SELECT full_name , marks FROM students WHERE marks >= 92 ;
```

```
+-----+-----+
| full_name | marks |
+-----+-----+
| anil     | 100   |
| bhumika  | 94    |
| dhruv    | 97    |
| emanuel  | 92    |
+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> SELECT full_name , marks FROM students WHERE marks > (SELECT AVG(marks) FROM students) ;
```

```
+-----+-----+
| full_name | marks |
+-----+-----+
| anil     | 100   |
| bhumika  | 94    |
| dhruv    | 97    |
+-----+-----+
3 rows in set (0.01 sec)
```

```
mysql> SELECT full_name FROM students WHERE (rollno % 2 = 0) ;
```

```
+-----+
| full_name |
+-----+
| bhumika   |
| dhruv     |
```

```
| farah |
```

```
+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT full_name , rollno FROM students
```

```
-> WHERE rollno IN(SELECT rollno FROM students WHERE rollno % 2 == 0) ;
```

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 '== 0)' at line 2

```
mysql> SELECT full_name , rollno FROM students WHERE rollno IN(SELECT rollno FROM students WHERE  
rollno % 2 = 0) ;
```

```
+-----+-----+
```

```
| full_name | rollno |
```

```
+-----+-----+
```

```
| bhumika | 102 |
```

```
| dhruv | 104 |
```

```
| farah | 106 |
```

```
+-----+-----+
```

3 rows in set (0.01 sec)

```
mysql> SELECT * FROM students WHERE city = "Delhi" ;
```

```
+-----+-----+-----+-----+-----+
```

```
| rollno | full_name | marks | grade | city |
```

```
+-----+-----+-----+-----+-----+
```

```
| 104 | dhruv | 97 | OUTSTANDING | Delhi |
```

```
| 105 | emanuel | 92 | OUTSTANDING | Delhi |
```

```
| 106 | farah | 83 | A | Delhi |
```

```
+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> SELECT MAX(marks)
```

```
-> FROM
```

```
-> (SELECT * FROM students WHERE city = "Delhi") AS temp ;
```

```
+-----+
```

```
| MAX(marks) |
```

```
+-----+
```

```
|    97 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> CREATE VIEW view1 AS
```

```
-> SELECT rollno , full_name , marks FROM students ;
```

```
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> SELECT * FROM view1 ;
```

```
+-----+-----+-----+
```

```
| rollno | full_name | marks |
```

```
+-----+-----+-----+
```

```
| 101 | anil    | 100 |
```

```
| 102 | bhumika | 94 |
```

```
| 103 | chetan  | 86 |
```

```
| 104 | dhruv   | 97 |
```

```
| 105 | emanuel | 92 |
```

```
| 106 | farah   | 83 |
```

```
+-----+-----+-----+
```

```
6 rows in set (0.01 sec)
```

```
mysql>
```