

SQL 15<sup>th</sup> Nov and 17<sup>th</sup> Nov practice

```
mysql> show databases;
```

```
+-----+  
| Database      |  
+-----+  
| customer_beaviour |  
| db            |  
| information_schema |  
| mysql          |  
| performance_schema |  
| samplecustomerdb  |  
| sys            |  
+-----+  
7 rows in set (0.01 sec)
```

```
mysql> create database nit;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> show databases;
```

```
+-----+  
| Database      |  
+-----+  
| customer_beaviour |  
| db            |  
| information_schema |  
| mysql          |  
| nit           |  
+-----+
```

```
| performance_schema |
```

```
| samplecustomerdb |
```

```
| sys |
```

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

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

```
mysql> use nit;
```

```
Database changed
```

```
mysql> create table student(
```

```
    -> name varchar(30),
```

```
    -> id int not null primary key,
```

```
    -> address varchar(50),
```

```
    -> marks int);
```

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

```
mysql> desc student;
```

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

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

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

```
| name  | varchar(30) | YES  |     | NULL   |     |
```

```
| id    | int        | NO   | PRI | NULL   |     |
```

```
| address | varchar(50) | YES  |     | NULL   |     |
```

```
| marks | int        | YES  |     | NULL   |     |
```

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

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

```
mysql> show tables;
```

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

```
| Tables_in_nit |
```

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

```
| student |
```

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

```
1 row in set (0.01 sec)
```

```
mysql> insert into student(marks,id,name,address)values(78, 12, 'prakash', 'hyd');
```

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

```
mysql> insert into strudent values('kodi', 40, 'bng', 66);
```

```
ERROR 1146 (42S02): Table 'nit.strudent' doesn't exist
```

```
mysql> insert into student values('kodi', 40, 'bng', 66);
```

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

```
mysql> insert into student values('alex', 45, 'hyd', 79), (cathu', 17, 'delhi', 90), ('dolly', 48, 'pune', 67), ('chancy', 78, 'mumbaoi', 34);
```

```
'>
```

```
'> insert into student values('alex', 45, 'hyd', 79), (cathu', 17, 'delhi', 90), ('dolly', 48, 'pune', 67), ('chancy', 78, 'mumbaoi', 34);
```

```
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 ", 17, 'delhi', 90), ('dolly', 48, 'pune', 67), ('chancy', 78, 'mumbaoi', 34);
```

```
' at line 1
```

```
mysql> insert into student values('alex', 45, 'hyd', 79), ('cathy', 17, 'delhi', 90), ('dolly', 48, 'pune', 67), ('chancy', 78, 'mumbai', 34);
```

```
Query OK, 4 rows affected (0.03 sec)
```

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

```
mysql> select * from student;
```

name	id	address	marks
prakash	12	hyd	78
cathy	17	delhi	90
kodi	40	bng	66
alex	45	hyd	79
dolly	48	pune	67
chancy	78	mumbai	34

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

```
mysql> select name from student;
```

name
prakash
cathy
kodi
alex
dolly
chancy

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

```
mysql> select * from student where id=12;
```

prakash	12	hyd	78
---------	----	-----	----

```
| name | id | address | marks |
```

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

```
| prakash | 12 | hyd | 78 |
```

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

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

```
mysql> select * from student;
```

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

```
| name | id | address | marks |
```

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

```
| prakash | 12 | hyd | 78 |
```

```
| cathy | 17 | delhi | 90 |
```

```
| kodi | 40 | bng | 66 |
```

```
| alex | 45 | hyd | 79 |
```

```
| dolly | 48 | pune | 67 |
```

```
| chancy | 78 | mumbai | 34 |
```

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

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

```
mysql> insert into student values('sam', 12,'hyd', 56);
```

```
ERROR 1062 (23000): Duplicate entry '12' for key 'student.PRIMARY'
```

```
mysql> update student set address='chennai' where id=45;
```

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

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from student;
```

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

```
| name | id | address | marks |
```

```
+-----+-----+-----+
| prakash | 12 | hyd   |  78 |
| cathy   | 17 | delhi |  90 |
| kodi    | 40 | bng   |  66 |
| alex    | 45 | chennai |  79 |
| dolly   | 48 | pune  |  67 |
| chancy  | 78 | mumbai |  34 |
+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> update student set address='chennai' where address='mumbai';
```

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from student;
```

```
+-----+-----+-----+
| name  | id  | address | marks |
+-----+-----+-----+
| prakash | 12 | hyd   |  78 |
| cathy   | 17 | delhi |  90 |
| kodi    | 40 | bng   |  66 |
| alex    | 45 | chennai |  79 |
| dolly   | 48 | pune  |  67 |
| chancy  | 78 | chennai |  34 |
+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> show tables;
```

```
+-----+
| Tables_in_nit |
+-----+
| student      |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from student;
```

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| prakash | 12 | hyd    | 78 |
| cathy   | 17 | delhi  | 90 |
| kodi    | 40 | bng    | 66 |
| alex    | 45 | chennai | 79 |
| dolly   | 48 | pune   | 67 |
| chancy  | 78 | chennai | 34 |
+-----+-----+-----+
```

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

```
mysql> alter table student add phoneNo = 123;
```

```
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 '= 123' at line 1
```

```
mysql> alter table student add phoneNo int;
```

```
Query OK, 0 rows affected (0.03 sec)
```

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

```
mysql> select * from student;
```

```

+-----+-----+-----+-----+
| name | id | address | marks | phoneNo |
+-----+-----+-----+-----+
| prakash | 12 | hyd | 78 | NULL |
| cathy | 17 | delhi | 90 | NULL |
| kodi | 40 | bng | 66 | NULL |
| alex | 45 | chennai | 79 | NULL |
| dolly | 48 | pune | 67 | NULL |
| chancy | 78 | chennai | 34 | NULL |
+-----+-----+-----+-----+

```

6 rows in set (0.00 sec)

mysql> update student set phoneNo=123;

Query OK, 6 rows affected (0.03 sec)

Rows matched: 6 Changed: 6 Warnings: 0

mysql> select \* from student;

```

+-----+-----+-----+-----+
| name | id | address | marks | phoneNo |
+-----+-----+-----+-----+
| prakash | 12 | hyd | 78 | 123 |
| cathy | 17 | delhi | 90 | 123 |
| kodi | 40 | bng | 66 | 123 |
| alex | 45 | chennai | 79 | 123 |
| dolly | 48 | pune | 67 | 123 |
| chancy | 78 | chennai | 34 | 123 |
+-----+-----+-----+-----+

```

6 rows in set (0.00 sec)

```
mysql> update student set phoneNo = 456 where id=12;
```

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

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from student;
```

name	id	address	marks	phoneNo
prakash	12	hyd	78	456
cathy	17	delhi	90	123
kodi	40	bng	66	123
alex	45	chennai	79	123
dolly	48	pune	67	123
chancy	78	chennai	34	123

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

```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
name	varchar(30)	YES		NULL	
id	int	NO	PRI	NULL	
address	varchar(50)	YES		NULL	
marks	int	YES		NULL	
phoneNo	int	YES		NULL	

5 rows in set (0.01 sec)

mysql> alter table student modify column name varchar(60);

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;

Field	Type	Null	Key	Default	Extra
name	varchar(60)	YES		NULL	
id	int	NO	PRI	NULL	
address	varchar(50)	YES		NULL	
marks	int	YES		NULL	
phoneNo	int	YES		NULL	

5 rows in set (0.00 sec)

mysql> alter table student drop column phoneNo;

Query OK, 0 rows affected (0.05 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> select \* from student;

name	id	address	marks
prakash	12	hyd	78
cathy	17	delhi	90

```
| kodi | 40 | bng | 66 |
| alex | 45 | chennai | 79 |
| dolly | 48 | pune | 67 |
| chancy | 78 | chennai | 34 |
+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> delete from student where name='kodi';
```

Query OK, 1 row affected (0.03 sec)

```
mysql> select * from student;
```

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| prakash | 12 | hyd | 78 |
| cathy | 17 | delhi | 90 |
| alex | 45 | chennai | 79 |
| dolly | 48 | pune | 67 |
| chancy | 78 | chennai | 34 |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> select sum(marks) from student;
```

```
+-----+
| sum(marks) |
+-----+
| 348 |
+-----+
```

1 row in set (0.03 sec)

mysql> select avg(marks) from student;

+-----+

| avg(marks) |

+-----+

| 69.6000 |

+-----+

1 row in set (0.00 sec)

mysql> select count(marks) from student;

+-----+

| count(marks) |

+-----+

| 5 |

+-----+

1 row in set (0.02 sec)

mysql> select min(marks) from student;

+-----+

| min(marks) |

+-----+

| 34 |

+-----+

1 row in set (0.02 sec)

mysql> select max(marks) from student;

+-----+

```
| max(marks) |  
+-----+  
|    90 |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select * from student;  
+-----+-----+-----+  
| name | id | address | marks |  
+-----+-----+-----+  
| prakash | 12 | hyd | 78 |  
| cathy | 17 | delhi | 90 |  
| alex | 45 | chennai | 79 |  
| dolly | 48 | pune | 67 |  
| chancy | 78 | chennai | 34 |  
+-----+-----+-----+  
5 rows in set (0.00 sec)
```

```
mysql> select * from student order by marks;  
+-----+-----+-----+  
| name | id | address | marks |  
+-----+-----+-----+  
| chancy | 78 | chennai | 34 |  
| dolly | 48 | pune | 67 |  
| prakash | 12 | hyd | 78 |  
| alex | 45 | chennai | 79 |  
| cathy | 17 | delhi | 90 |  
+-----+-----+-----+
```

5 rows in set (0.00 sec)

mysql> select \* from student order by marks desc;

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| cathy | 17 | delhi | 90 |
| alex | 45 | chennai | 79 |
| prakash | 12 | hyd | 78 |
| dolly | 48 | pune | 67 |
| chancy | 78 | chennai | 34 |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

mysql> select \* from student where name='a%';

Empty set (0.00 sec)

mysql> select \* from student where name like 'a%';

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| alex | 45 | chennai | 79 |
+-----+-----+-----+
```

1 row in set (0.02 sec)

mysql> select \* from student where name like '%y';

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
```

```
+-----+-----+-----+
| cathy | 17 | delhi | 90 |
| dolly | 48 | pune | 67 |
| chancy | 78 | chennai | 34 |
+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> select * from student where name like '_a%';
```

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| cathy | 17 | delhi | 90 |
+-----+-----+-----+
```

1 row in set (0.00 sec)

```
mysql> select * from student where name like '%s_';
```

```
+-----+-----+-----+
| name | id | address | marks |
+-----+-----+-----+
| prakash | 12 | hyd | 78 |
+-----+-----+-----+
```

1 row in set (0.00 sec)

```
mysql> create table emp(id int not null primary key, salary int, empcode int, name varchar(30));
```

Query OK, 0 rows affected (0.06 sec)

```
mysql> insert into emp values(12, 20000, 102, 'aman'), (23, 60000, 104, 'arup'), (78, 30000, 105, 'max'), (80, 25000, 103, 'ram'), (34, 90000, 106, 'sam');
```

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> select \* from emp;

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

| id | salary | empcode | name |

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

| 12 | 20000 | 102 | aman |

| 23 | 60000 | 104 | arup |

| 34 | 90000 | 106 | sam |

| 78 | 30000 | 105 | max |

| 80 | 25000 | 103 | ram |

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

5 rows in set (0.00 sec)

mysql> select \* from student;

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

| name | id | address | marks |

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

| prakash | 12 | hyd | 78 |

| cathy | 17 | delhi | 90 |

| alex | 45 | chennai | 79 |

| dolly | 48 | pune | 67 |

| chancy | 78 | chennai | 34 |

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

5 rows in set (0.00 sec)

mysql> show tables;

```
+-----+
| Tables_in_nit |
+-----+
| emp      |
| student   |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> select * from student inner join emp on student.id=emp.id;
```

```
+-----+-----+-----+-----+-----+-----+
| name | id | address | marks | id | salary | empcode | name |
+-----+-----+-----+-----+-----+-----+
| prakash | 12 | hyd    | 78 | 12 | 20000 | 102 | aman |
| chancy | 78 | chennai | 34 | 78 | 30000 | 105 | max  |
+-----+-----+-----+-----+-----+-----+
```

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

```
mysql> select * from emp inner join student on emp.id= student.id;
```

```
+-----+-----+-----+-----+-----+-----+
| id | salary | empcode | name | name  | id | address | marks |
+-----+-----+-----+-----+-----+-----+
| 12 | 20000 | 102 | aman | prakash | 12 | hyd    | 78 |
| 78 | 30000 | 105 | max  | chancy | 78 | chennai | 34 |
+-----+-----+-----+-----+-----+-----+
```

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

```
mysql> select * from student left join emp on student.id=emp.id;
```

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

```

| name | id | address | marks | id | salary | empcode | name |
+-----+---+-----+-----+-----+-----+
| prakash | 12 | hyd | 78 | 12 | 20000 | 102 | aman |
| cathy | 17 | delhi | 90 | NULL | NULL | NULL | NULL |
| alex | 45 | chennai | 79 | NULL | NULL | NULL | NULL |
| dolly | 48 | pune | 67 | NULL | NULL | NULL | NULL |
| chancy | 78 | chennai | 34 | 78 | 30000 | 105 | max |
+-----+---+-----+-----+-----+

```

5 rows in set (0.00 sec)

```

mysql> select * from emp left join student on student.id=emp.id;
+-----+-----+-----+-----+-----+-----+
| id | salary | empcode | name | name | id | address | marks |
+-----+-----+-----+-----+-----+-----+
| 12 | 20000 | 102 | aman | prakash | 12 | hyd | 78 |
| 23 | 60000 | 104 | arup | NULL | NULL | NULL | NULL |
| 34 | 90000 | 106 | sam | NULL | NULL | NULL | NULL |
| 78 | 30000 | 105 | max | chancy | 78 | chennai | 34 |
| 80 | 25000 | 103 | ram | NULL | NULL | NULL | NULL |
+-----+-----+-----+-----+-----+

```

5 rows in set (0.00 sec)

```

mysql> select * from student right join emp on student.id=emp.id;
+-----+-----+-----+-----+-----+-----+
| name | id | address | marks | id | salary | empcode | name |
+-----+-----+-----+-----+-----+-----+
| prakash | 12 | hyd | 78 | 12 | 20000 | 102 | aman |
| NULL | NULL | NULL | NULL | 23 | 60000 | 104 | arup |

```

```
| NULL | NULL | NULL | NULL | 34 | 90000 | 106 | sam |
| chancy | 78 | chennai | 34 | 78 | 30000 | 105 | max |
| NULL | NULL | NULL | NULL | 80 | 25000 | 103 | ram |
+-----+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> select * from emp right join student on student.id=emp.id;
```

```
+-----+-----+-----+-----+-----+
| id | salary | empcode | name | name | id | address | marks |
+-----+-----+-----+-----+-----+
| 12 | 20000 | 102 | aman | prakash | 12 | hyd | 78 |
| NULL | NULL | NULL | NULL | cathy | 17 | delhi | 90 |
| NULL | NULL | NULL | NULL | alex | 45 | chennai | 79 |
| NULL | NULL | NULL | NULL | dolly | 48 | pune | 67 |
| 78 | 30000 | 105 | max | chancy | 78 | chennai | 34 |
+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> select * from student cross join emp on student.id=emp.id;
```

```
+-----+-----+-----+-----+-----+
| name | id | address | marks | id | salary | empcode | name |
+-----+-----+-----+-----+-----+
| prakash | 12 | hyd | 78 | 12 | 20000 | 102 | aman |
| chancy | 78 | chennai | 34 | 78 | 30000 | 105 | max |
+-----+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> select * from student cross join emp;
```

name	id	address	marks	id	salary	empcode	name
chancy	78	chennai	34	12	20000	102	aman
dolly	48	pune	67	12	20000	102	aman
alex	45	chennai	79	12	20000	102	aman
cathy	17	delhi	90	12	20000	102	aman
prakash	12	hyd	78	12	20000	102	aman
chancy	78	chennai	34	23	60000	104	arup
dolly	48	pune	67	23	60000	104	arup
alex	45	chennai	79	23	60000	104	arup
cathy	17	delhi	90	23	60000	104	arup
prakash	12	hyd	78	23	60000	104	arup
chancy	78	chennai	34	34	90000	106	sam
dolly	48	pune	67	34	90000	106	sam
alex	45	chennai	79	34	90000	106	sam
cathy	17	delhi	90	34	90000	106	sam
prakash	12	hyd	78	34	90000	106	sam
chancy	78	chennai	34	78	30000	105	max
dolly	48	pune	67	78	30000	105	max
alex	45	chennai	79	78	30000	105	max
cathy	17	delhi	90	78	30000	105	max
prakash	12	hyd	78	78	30000	105	max
chancy	78	chennai	34	80	25000	103	ram
dolly	48	pune	67	80	25000	103	ram
alex	45	chennai	79	80	25000	103	ram
cathy	17	delhi	90	80	25000	103	ram
prakash	12	hyd	78	80	25000	103	ram

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

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