

How to open Mysql Command Line Client
 Will goto start and type mysql command line client

Enter Your Mysql Password then enter

The screenshot shows a Windows desktop environment with a taskbar at the bottom. On the taskbar, there is a search bar with the placeholder "Type here to search", a file icon, and several pinned application icons including File Explorer, Google Chrome, Microsoft Edge, and others. The system tray shows the date and time as "13-01-2025 19:57". Above the taskbar, the title bar of the MySQL 8.0 Command Line Client window is visible, showing the title "MySQL 8.0 Command Line Client". The main window content is a black terminal-like interface displaying the MySQL monitor welcome message:

```
Enter password: *****
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 31
Server version: 8.0.33 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input state.

mysql>
```

Q1. How to create a database in mysql?

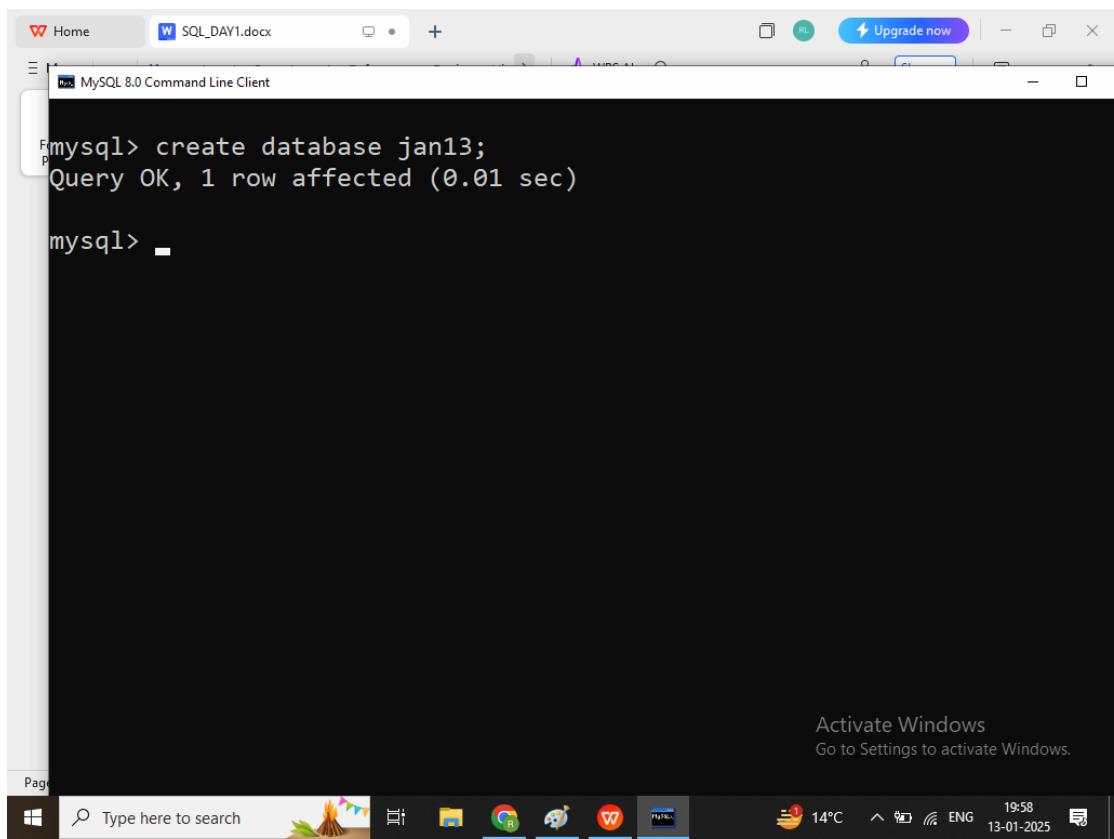
Ans: if we want to create a database then we should go for create command (DDL).

Syntax:

Create database dbname;

Example:

Create database jan13;



The screenshot shows a Windows desktop environment with a taskbar at the bottom. The taskbar includes icons for File Explorer, Google Chrome, Microsoft Edge, and others. The system tray shows the date as 13-01-2025, the time as 19:58, and the temperature as 14°C. A watermark for "Activate Windows" is visible in the center of the screen.

MySQL 8.0 Command Line Client

```
mysql> create database jan13;
Query OK, 1 row affected (0.01 sec)

mysql> -
```

Q2. How to verify database is created or not?

OR

How to display list of databases in mysql?

Ans:

Use following command to display list of databases

In your mysql

Show databases;

```
owners.

P Type 'help;' or '\h' for help. Type '\c' to clear the current input state.

mysql> create database jan13;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| aug1db   |
| aug28    |
| b3        |
| bank      |
| bookstore|
| bootmvc   |
| cybromdb  |
| cydb      |
| cyindb   |
| cysdb    |
| cyspringjdbc |
+-----+
```

Activate Windows
Go to Settings to activate Windows.

Q3. How to delete database from the mysql?
Ans: if we want to delete database from the mysql then we should go for drop command

Syntax:

Drop database dbname;

Example:

Drop database jan13;

```
60 rows in set (0.02 sec)

mysql> drop database jan13;
Query OK, 0 rows affected (0.01 sec)

mysql> -
```

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Q4. How to select particular database in mysql?

Use database name;

Use jan13;

Syntax:

```
create table tableName(
column data type constraint,
column data type constraint,
column data type constraint,
column data type constraint,
column data type constraint
);
```

Example:

```
create table student(
sid int primary key,
name varchar(45),
enroll varchar(45),
per float
);
```

pk int	varchar(45)	Student varchar(45)	float
sid	name	enroll	per

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Google Chrome, Microsoft Edge, and others. The system tray shows the date as 13-01-2025, the time as 20:12, and the weather as 14°C. A watermark for 'Activate Windows' is visible in the center of the screen.

```
MySQL 8.0 Command Line Client
-> per float
-> );
ERROR 1046 (3D000): No database selected
mysql> use jan13;
Database changed
mysql> create table student(
-> sid int primary key,
-> name varchar(45),
-> enroll varchar(45),
-> per float
-> );
Query OK, 0 rows affected (0.02 sec)

mysql>
```

Q2. How to create table in mysql database?

Syntax:

```
create table tableName(
column data type constraint,
column data type constraint,
column data type constraint,
column data type constraint,
column data type constraint
);
```

Example:

```
create table student(
sid int primary key,
name varchar(45),
enroll varchar(45),
per float
);
```

pk int	varchar(45) name	Student varchar(45) enroll	float per

MySQL 8.0 Command Line Client

```

-> per float
P
-> );
ERROR 1046 (3D000): No database selected
mysql> use jan13;
Database changed
mysql> create table student(
-> sid int primary key,
-> name varchar(45),
-> enroll varchar(45),
-> per float
-> );
Query OK, 0 rows affected (0.02 sec)

mysql>
```

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Untitled - Paint

Syntax:

```
create table tableName(
column data type constraint,
column data type constraint,
column data type constraint,
column data type constraint
);
```

Example:

```
create table student(
sid int primary key,
name varchar(45),
enroll varchar(45),
per float
);
```

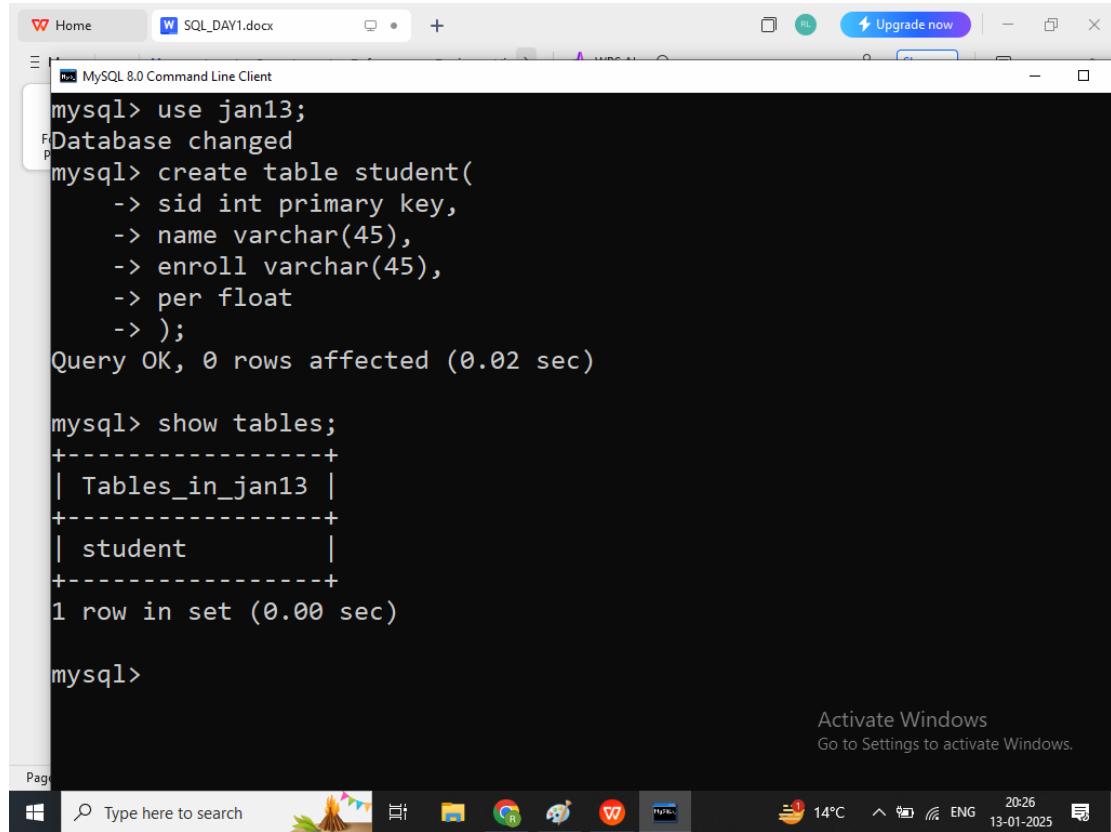
pk	int	varchar(45)	Student	varchar(45)	float
sid	name	enroll	per		

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Q1. How to display list of tables in mysql?

Show tables;



```
MySQL 8.0 Command Line Client
mysql> use jan13;
Database changed
mysql> create table student(
    -> sid int primary key,
    -> name varchar(45),
    -> enroll varchar(45),
    -> per float
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql> show tables;
+-----+
| Tables_in_jan13 |
+-----+
| student         |
+-----+
1 row in set (0.00 sec)

mysql>
```

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Pages Type here to search 14°C 20:26 13-01-2025

Q1.How to display structure of the table in mysql?

Ans:

If we want to display structure of the table then we should go for desc/describe command

Syntax:

Desc tablename;

OR

Decribe tablename;

Example:

Desc student;

OR

Decribe student;

The screenshot shows a Windows taskbar at the bottom with various icons. The main window is titled "MySQL 8.0 Command Line Client". It displays two sets of SQL commands and their results.

```
mysql> desc student;
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| sid   | int    | NO   | PRI | NULL    |       |
| name  | varchar(45) | YES  |     | NULL    |       |
| enroll | varchar(45) | YES  |     | NULL    |       |
| per   | float   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)

mysql> describe student;
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| sid   | int    | NO   | PRI | NULL    |       |
| name  | varchar(45) | YES  |     | NULL    |       |
| enroll | varchar(45) | YES  |     | NULL    |       |
| per   | float   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

A watermark for "Activate Windows" is visible in the bottom right corner of the client window.

Q2. How to add new column in existing table?

Student (insert new column)

sid	name	enroll	per	p	

If we want to insert new column in existing table then we should go for alter command

Syntax:

Alter table tableName add column columnName data type;

Example:

Alter table student add column p int;

MySQL 8.0 Command Line Client

```
ual that corresponds to your MySQL server version for the right syntax
to use near 'student add column p int' at line 1
mysql> Alter table student add column p int;
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| sid   | int       | NO   | PRI | NULL    |          |
| name  | varchar(45) | YES  |     | NULL    |          |
| enroll | varchar(45) | YES  |     | NULL    |          |
| per   | float     | YES  |     | NULL    |          |
| p     | int       | YES  |     | NULL    |          |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> ■
```

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Clipboard

```
mysql> Alter table student add column total int;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| sid   | int       | NO   | PRI | NULL    |       |
| name  | varchar(45) | YES  |     | NULL    |       |
| enroll | varchar(45) | YES  |     | NULL    |       |
| per   | float     | YES  |     | NULL    |       |
| p     | int       | YES  |     | NULL    |       |
| c     | int       | YES  |     | NULL    |       |
| m     | int       | YES  |     | NULL    |       |
| h     | int       | YES  |     | NULL    |       |
| e     | int       | YES  |     | NULL    |       |
| total | int       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

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Q3. Write a SQL Query to delete particular column (grade) from the student Table?

Ans: if we want to delete a particular column then we should go for drop command with alter

Syntax:

Alter table tableName drop column columnName;

Example:

Alter table student drop column grade;

```
mysql> Alter table student drop column grade;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| sid   | int       | NO   | PRI | NULL    |       |
| name  | varchar(45) | YES  |     | NULL    |       |
| enroll | varchar(45) | YES  |     | NULL    |       |
| per   | float     | YES  |     | NULL    |       |
| p     | int       | YES  |     | NULL    |       |
| c     | int       | YES  |     | NULL    |       |
| m     | int       | YES  |     | NULL    |       |
| h     | int       | YES  |     | NULL    |       |
| e     | int       | YES  |     | NULL    |       |
| total | int       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

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Q3. How to create a new table with existing table in mysql?

Ans:

Syntax:

Create table tableName as select * from table2;

Create table student1 as select * from student;

MySQL 8.0 Command Line Client

```
mysql> show tables;
+-----+
| Tables_in_jan13 |
+-----+
| student      |
+-----+
1 row in set (0.00 sec)

mysql> Create table student1 as select * from student;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> show tables;
+-----+
| Tables_in_jan13 |
+-----+
| student      |
| student1     |
+-----+
2 rows in set (0.00 sec)
```

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The screenshot shows the MySQL 8.0 Command Line Client interface. In the command window, the following commands and their results are displayed:

```
mysql> select * from student;
+-----+-----+
| student | student1 |
+-----+-----+
2 rows in set (0.00 sec)

mysql> desc student1;
+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| sid   | int       | NO   |     | NULL    |       |
| name  | varchar(45) | YES  |     | NULL    |       |
| enroll | varchar(45) | YES  |     | NULL    |       |
| per   | float     | YES  |     | NULL    |       |
| p     | int       | YES  |     | NULL    |       |
| c     | int       | YES  |     | NULL    |       |
| m     | int       | YES  |     | NULL    |       |
| h     | int       | YES  |     | NULL    |       |
| e     | int       | YES  |     | NULL    |       |
| total | int       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

The taskbar at the bottom of the screen includes icons for File, Home, New Year Sale!, Document1, Upgrade now, and other system icons like battery level, temperature (16°C), and date (14-01-2025).

Q1. How to insert record into the table in mysql?

Ans: if we want to work on data then we should go for DML(Data manipulation language). insert command is used to insert new record into the table

There are two ways to insert data into mysql table

1. Insert data into all columns

This is used to insert data into all columns we cannot skip any columns to insert data

Syntax:

```
Insert into tablename values(value1,value2);
```

```
insert into student
```

```
values(101,'Akash','0176Cs1',67.56,56,78,78,56,78,378);
```

```
MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+
| sid | int   | NO    |      | NULL  |      |
| name| varchar(45)| YES   |      | NULL  |      |
| enroll | varchar(45) | YES   |      | NULL  |      |
| per  | float  | YES   |      | NULL  |      |
| p    | int    | YES   |      | NULL  |      |
| c    | int    | YES   |      | NULL  |      |
| m    | int    | YES   |      | NULL  |      |
| h    | int    | YES   |      | NULL  |      |
| e    | int    | YES   |      | NULL  |      |
| total | int   | YES   |      | NULL  |      |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> insert into student values(101,'Akash','0176Cs1',67.56,56,78,78,56,78,378);
Query OK, 1 row affected (0.01 sec)

mysql>
```

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2. Insert data into specific columns
It is used to insert new record into the table with specific column

Syntax:

```
Insert into tablename(column,column,column)
values(value1,value2,value3);
```

The screenshot shows a Windows desktop environment with a MySQL 8.0 Command Line Client window open. The window title is "MySQL 8.0 Command Line Client". Inside, a command is run to insert a row into a table named "student". The output shows the query was successful, with 1 row affected in 0.01 seconds. Then, a "select * from student;" query is run, displaying the contents of the table. The table has columns: sid, name, enroll, per, p, c, m, h, e, and total. It contains two rows: one for Akash (sid 101) and one for Deepak (sid 102). Deepak's data includes NULL values for most columns except name and enroll. The MySQL client interface includes a toolbar with icons for file operations and a vertical sidebar with various icons.

```
mysql> insert into student(sid,name,enroll) values(102,'Deepak','0176Cs2');
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name  | enroll | per   | p    | c    | m    | h    | e    | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | Akash | 0176Cs1 | 67.56 | 56   | 78   | 78   | 56   | 78   | 378  |
| 102 | Deepak | 0176Cs2 | NULL  |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Q2. How to display data of table in mysql?

Ans: if we want to display data of any table then we should go for select command

There are two ways we select data from the table

1. Select all columns data from the table

Syntax:

Select * from tablename;

Example:

Select *from student;

The screenshot shows a Windows desktop environment with a MySQL 8.0 Command Line Client window open. The window title is "Select MySQL 8.0 Command Line Client". The query executed is "select * from student;". The result is a table with the following data:

sid	name	enroll	per	p	c	m	h	e	total
101	Akash	0176Cs1	67.56	56	78	78	56	78	378

There is one row in the set, and the total execution time was 0.00 sec.

Activate Windows
Go to Settings to activate Windows.

Page Type here to search 16°C 20:04 14-01-2025

2. Select specific column data from the table

Select column, column, column from tablename;

Select sid,name,enroll,per,total from student;

The screenshot shows a Windows desktop environment with a MySQL 8.0 Command Line Client window open. The window title is "MySQL 8.0 Command Line Client". Inside the window, a command has been run:

```
mysql> Select sid,name,enroll,per,total from student;
```

The output is a table with the following data:

sid	name	enroll	per	total
101	Akash	0176Cs1	67.56	378

There is one row in the set, and it took 0.00 seconds to execute.

At the bottom right of the client window, there is a message: "Activate Windows Go to Settings to activate Windows."

The taskbar at the bottom of the screen shows various icons and system status:

- Type here to search
- File Explorer
- Google Chrome
- Paint
- Windows File Explorer
- MySQL Workbench
- Notepad
- Calculator
- 16°C
- 20:06
- ENG
- 14-01-2025

Q3. How to update data in mysql table?

Ans: if we want to update data into the table then we should go for update command (DML).

Syntax:

Update tableName set columnName=value, columnName=value, columnName=value where pk=?;

Example

update student set name='kartik',enroll='0176CS3' where sid=103;

The screenshot shows a Windows desktop environment. In the foreground, a terminal window titled "Select MySQL 8.0 Command Line Client" is open, displaying MySQL queries and their results. The queries include an update statement to change a student's name and a select statement to retrieve all data from the student table. The taskbar at the bottom shows various pinned icons and system status information like temperature and date.

```
*Untitled - Notepad
File Edit Format View Help
Up Select MySQL 8.0 Command Line Client
na to your MySQL server version for the right syntax to use near 'table student name='kartik''^
n ,enroll='0176CS3' where sid=103' at line 1
mysql> update student set name='kartik',enroll='0176CS3' where sid=103;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> select * from student;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | Akash | 0176Cs1 | 67.56 | 56 | 78 | 78 | 56 | 78 | 378 |
| 102 | Deepak | 0176Cs2 | NULL |
| 103 | kartik | 0176CS3 | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Q3. How to delete data from the mysql table?

Ans: if we want to delete data from the table then we should go for delete(DML) command

Syntax:

Delete from tablename where pk=?;

Example:

Delete from student where sid=103;

Home New Year Sale! SQL_DAY2_JAN14.docx Upgrade now

Select MySQL 8.0 Command Line Client

```
3 rows in set (0.00 sec)

mysql> delete from student where sid=103;
Query OK, 1 row affected (0.00 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name  | enroll | per   | p    | c    | m    | h    | e    | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | Akash | 0176Cs1 | 67.56 | 56   | 78   | 78   | 56   | 78   | 378  |
| 102 | Deepak | 0176Cs2 | NULL  |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.



Q1.How to insert data into mysql table?

Ans:

There are two ways to insert data into mysql

1. Insert data into all columns

Syntax:

Insert into tableName values(value1,value2);

```
MySQL 5.5 Command Line Cli  +  ×
+-----+
2 rows in set (0.00 sec)

mysql> insert into student values(103,'deepak','0123CS2',62,60,61,62,63,64,310);
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
+-----+
3 rows in set (0.00 sec)

mysql> insert into student values(104,'shivam','0123CS4');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into student values(104,'shivam','0123CS4',null,null,null,null,null,null);
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
+-----+
4 rows in set (0.00 sec)

mysql> |
```

2. Insert data into specific column

Syntax:

Insert into tablename(column,column,column)

values(value1,value2,value3);

insert into student(sid,name,enroll)

values(105,'kartik','0123CS5');

insert into student(sid,name,enroll)

values(105,'kartik','0123CS5');

```
MySQL 5.5 Command Line Cli X + v - □ ×

mysql> insert into student values(104,'shivam','0123CS4');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into student values(104,'shivam','0123CS4',null,null,null,null,null,null);
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> insert into student(sid,name,enroll) values(105,'kartik','0123CS5');
Query OK, 1 row affected (0.00 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
| 105 | kartik | 0123CS5 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> |
```

Q2. How to update data in mysql table?

Ans: if we want to update data into the table then we should go for update command(DML).

Syntax:

Update tablename set

column=value,column=value,column=value where pk=?

```
MySQL 5.5 Command Line Cli + - X

mysql> insert into student values(104,'shivam','0123CS4');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into student values(104,'shivam','0123CS4',null,null,null,null,null,null);
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> insert into student(sid,name,enroll) values(105,'kartik','0123CS5');
Query OK, 1 row affected (0.00 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
| 105 | kartik | 0123CS5 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> |
```

update student set p=70,c=71,m=72,h=73,e=74,total=360,per=72 where sid=105;

```
MySQL 5.5 Command Line Cli + - X

mysql> insert into student(sid,name,enroll) values(105,'kartik','0123CS5');
Query OK, 1 row affected (0.00 sec)

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
| 105 | kartik | 0123CS5 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> update student set p=70,c=71,m=72,h=73,e=74,total=360,per=72 where sid=105;
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from student;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 104 | shivam | 0123CS4 | NULL |
| 105 | kartik | 0123CS5 | 72 | 70 | 71 | 72 | 73 | 74 | 360 |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> |
```

Q2.How to delete data from mysql table?

Ans:

If we want to delete data from the table then we should go for delete command(DML)

Syntax:

Delete from tablename where pk=?

```
MySQL 5.5 Command Line Cli + - X
+-----+
| 104 | shivam | 0123CS4 | NULL |
| 105 | kartik | 0123CS5 | 72 | 70 | 71 | 72 | 73 | 74 | 360 |
+-----+
5 rows in set (0.00 sec)

mysql> delete from student where sid=104;
Query OK, 1 row affected (0.00 sec)

mysql> select * from student;
+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 103 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 105 | kartik | 0123CS5 | 72 | 70 | 71 | 72 | 73 | 74 | 360 |
+-----+
4 rows in set (0.00 sec)

mysql> delete from student where sid=103;
Query OK, 1 row affected (0.01 sec)

mysql> select * from student;
+-----+
| sid | name | enroll | per | p | c | m | h | e | total |
+-----+
| 101 | akash | 0123CS1 | 52 | 50 | 51 | 52 | 53 | 54 | 260 |
| 102 | deepak | 0123CS2 | 62 | 60 | 61 | 62 | 63 | 64 | 310 |
| 105 | kartik | 0123CS5 | 72 | 70 | 71 | 72 | 73 | 74 | 360 |
+-----+
3 rows in set (0.00 sec)

mysql> |
```

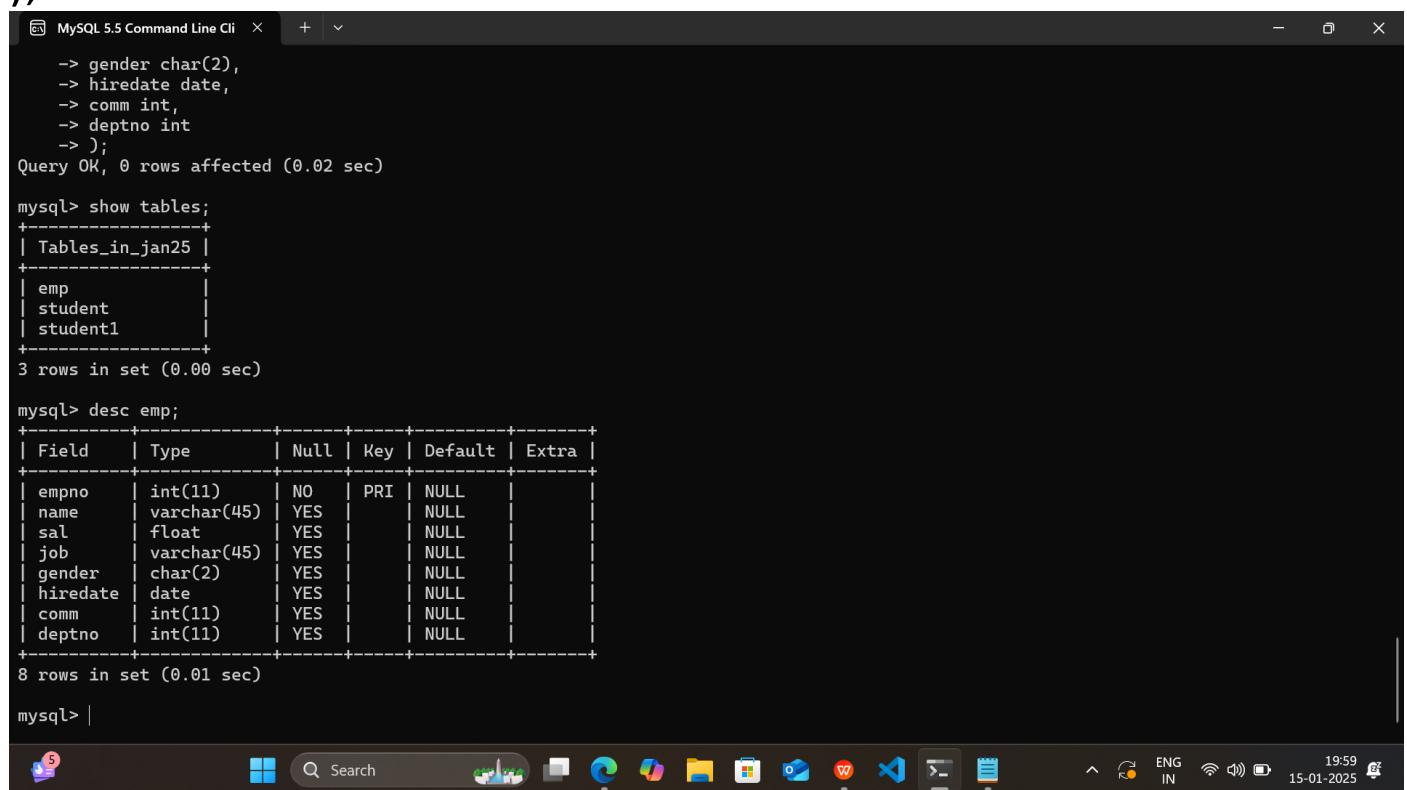
Q1. Write a SQL Query to create emp table in mysql database?

emp							
empno	name	sal	job	gender	hiredate	comm	deptno
			CLERK SALESMAN MANAGER	M	2010 to 2024 'YYYY-MM-DD'		10,20,30
1			CLERK	F			10
2			MANAGER	M			20
3			SALESMAN	F			30
4			CLERK	M			10
5			MANAGER	F			20
6			SALESMAN	M			30

7		CLERK	F			10
8		MANAGER	M			20
9		SALESMAN	F			30
10		CLERK	M			10
11		MANAGER	F			20
12		SALESMAN	M			30
13		CLERK	F			10
14		MANAGER	M			20
15		SALESMAN	F			30
16		MANAGER	M			10

Syntax:

```
Create table tablename(
Column name data type primary key,
Column name data type,
Column name data type,
Column name data type
);
```



The screenshot shows a terminal window for MySQL 5.5 Command Line Cli. The user has created a table named 'emp' with the following structure:

```
--> gender char(2),
--> hiredate date,
--> comm int,
--> deptno int
--> );
Query OK, 0 rows affected (0.02 sec)
```

Then, the user runs the command to show tables:

```
mysql> show tables;
```

The output shows three tables: 'Tables_in_jan25', 'emp', 'student', and 'student1'.

```
+-----+
| Tables_in_jan25 |
+-----+
| emp
| student
| student1
+-----+
```

Next, the user describes the 'emp' table:

```
mysql> desc emp;
```

The output shows the columns and their properties:

Field	Type	Null	Key	Default	Extra
empno	int(11)	NO	PRI	NULL	
name	varchar(45)	YES		NULL	
sal	float	YES		NULL	
job	varchar(45)	YES		NULL	
gender	char(2)	YES		NULL	
hiredate	date	YES		NULL	
comm	int(11)	YES		NULL	
deptno	int(11)	YES		NULL	

8 rows in set (0.01 sec)

```
create table emp(
empno int primary key,
```

```

name varchar(45),
sal float,
job varchar(45),
gender char(2),
hiredate date,
comm int,
deptno int
);

```

```

MySQL 5.5 Command Line Cli  +  ×

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.5.62 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database jan15;
Query OK, 1 row affected (0.00 sec)

mysql> use jan15;
Database changed

mysql> create table emp(
    -> empno int primary key,
    -> name varchar(45),
    -> sal float,
    -> job varchar(45),
    -> gender char(2),
    -> hiredate date,
    -> comm int,
    -> deptno int
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql> |

```

```

MySQL 5.5 Command Line Cli  +  ×

20:04 15-01-2025

mysql> insert into emp values(1013,'Kaja;',33000,'sales manager','F','2023-06-18',8000,30);
Query OK, 1 row affected (0.25 sec)

mysql> insert into emp values(1014,'Sonal',40000,'manager','F','2015-06-18',8000,20);
Query OK, 1 row affected (0.27 sec)

mysql> insert into emp values(1015,'Priyanshu',40000,'manager','M','2024-08-28',8000,10);
Query OK, 1 row affected (0.00 sec)

mysql> select * from emp;
+----+----+----+----+----+----+----+
| empno | name | sal | job | gender | hiredate | comm | deptno |
+----+----+----+----+----+----+----+
| 1001 | Payal | 60000 | clerk | F | 2011-04-13 | 3000 | 10 |
| 1002 | Ayushi | 50000 | clerk | F | 2013-04-13 | 2000 | 10 |
| 1003 | Priya | 40000 | manager | F | 2015-06-18 | 8000 | 20 |
| 1004 | Pawan | 40000 | manager | M | 2015-06-18 | 8000 | 30 |
| 1005 | Raj | 30000 | sales manager | M | 2018-06-19 | 7000 | 20 |
| 1006 | shivam | 40000 | manager | F | 2015-06-18 | 8000 | 20 |
| 1007 | Prabhu | 70000 | clerk | M | 2016-06-18 | 9000 | 20 |
| 1008 | Dev | 80000 | manager | M | 2015-06-18 | 8000 | 20 |
| 1009 | Ravi | 70000 | clerk | M | 2024-06-18 | 6000 | 10 |
| 1010 | Rupal | 50000 | manager | F | 2015-06-18 | 4000 | 20 |
| 1011 | Priya | 90000 | manager | F | 2022-06-18 | 8000 | 40 |
| 1012 | Saami | 55000 | sales manager | F | 2023-06-18 | 8000 | 20 |
| 1013 | Kaja; | 33000 | sales manager | F | 2023-06-18 | 8000 | 30 |
| 1014 | Sonal | 40000 | manager | F | 2015-06-18 | 8000 | 20 |
| 1015 | Priyanshu | 40000 | manager | M | 2024-08-28 | 8000 | 10 |
+----+----+----+----+----+----+----+
15 rows in set (0.00 sec)

mysql> |

```

Q1. Write a SQL Query to print name,sal,deptno of all employee?

Ans:

Select name,sal,deptno from emp;

```
MySQL 8.0 Command Line Client
+----+----+----+----+----+----+----+----+
| 7934 | MILLER | CLERK      | 7782 | 1982-01-23 | 14892 | NULL  |    10 |
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150   |    30 |
+----+----+----+----+----+----+----+----+
16 rows in set (0.00 sec)

mysql> select ename,sal,deptno from emp;
+----+----+----+
| ename | sal   | deptno |
+----+----+----+
| NULL  | NULL  | NULL   |
| SMITH | 800   | 20     |
| ALLEN | 21500 | 30     |
| WARD  | 10000 | 30     |
| JONES | 11512 | 20     |
| MARTIN | 12789 | 30     |
| BLAKE  | 21563 | 30     |
| CLARK  | 10365 | 10     |
| SCOTT  | 17845 | 20     |
| KING   | 10234 | 10     |
| TURNER | 11552 | 30     |
| ADAMS  | 15692 | 20     |
| JAMES  | 21212 | 30     |
| FORD   | 13652 | 20     |
| MILLER | 14892 | 10     |
| AMAN   | 23000 | 30     |
+----+----+----+
16 rows in set (0.00 sec)

mysql> -
```

Activate Windows
Go to Settings to activate Windows.



Q2. Write a SQL query to print data of all employee whose deptno is 10?

Select * from emp where deptno=10;

```
MySQL 8.0 Command Line Client

mysql> select * from emp where deptno=10;
+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+
| 7782  | CLARK  | MANAGER | 7839  | 1981-06-09 | 10365 | NULL  | 10    |
| 7839  | KING   | PRESIDENT | NULL  | 1981-11-17 | 10234 | NULL  | 10    |
| 7934  | MILLER | CLERK   | 7782  | 1982-01-23 | 14892 | NULL  | 10    |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from emp where deptno=20;
+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+
| 7369  | SMITH  | CLERK   | 7902  | 1980-12-17 | 800   | NULL  | 20    |
| 7566  | JONES  | MANAGER | 7839  | 1981-04-02 | 11512 | NULL  | 20    |
| 7788  | SCOTT  | ANALYST | 7566  | 1982-12-09 | 17845 | NULL  | 20    |
| 7876  | ADAMS  | CLERK   | 7788  | 1983-01-12 | 15692 | NULL  | 20    |
| 7902  | FORD   | ANALYST | 7566  | 1981-12-03 | 13652 | NULL  | 20    |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from emp where deptno=30;
+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN  | SALESMAN | 7698  | 1981-02-20 | 21500 | 150   | 30    |
| 7521  | WARD   | SALESMAN | 7698  | 1981-02-22 | 10000 | 500   | 30    |
| 7654  | MARTIN | SALESMAN | 7698  | 1981-09-28 | 12789 | 1400  | 30    |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

Windows Type here to search 19:39
Earn... ENG 16-01-2025
```

Q3. Write a SQL query to print data of all employee whose salary is greater than 15000.

Select * from emp where sal>15000;

```
MySQL 8.0 Command Line Client
7 rows in set (0.00 sec)

mysql> select * from emp where sal>15000;
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr   | hiredate    | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN | SALESMAN     | 7698  | 1981-02-20  | 21500 | 150   | 30    |
| 7698  | BLAKE  | MANAGER       | 7839  | 1981-05-01  | 21563 | NULL  | 30    |
| 7788  | SCOTT  | ANALYST       | 7566  | 1982-12-09  | 17845 | NULL  | 20    |
| 7876  | ADAMS  | CLERK         | 7788  | 1983-01-12  | 15692 | NULL  | 20    |
| 7900  | JAMES  | CLERK         | 7698  | 1981-12-03  | 21212 | NULL  | 30    |
| 7935  | AMAN   | JAVA DEVELOPER | 7698  | 2024-01-01  | 23000 | 150   | 30    |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> select * from emp where sal<15000;
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr   | hiredate    | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7369  | SMITH | CLERK         | 7902  | 1980-12-17  | 800   | NULL  | 20    |
| 7521  | WARD   | SALESMAN      | 7698  | 1981-02-22  | 10000 | 500   | 30    |
| 7566  | JONES  | MANAGER       | 7839  | 1981-04-02  | 11512 | NULL  | 20    |
| 7654  | MARTIN | SALESMAN      | 7698  | 1981-09-28  | 12789 | 1400  | 30    |
| 7782  | CLARK  | MANAGER       | 7839  | 1981-06-09  | 10365 | NULL  | 10    |
| 7839  | KING   | PRESIDENT     | NULL  | 1981-11-17  | 10234 | NULL  | 10    |
| 7844  | TURNER | SALESMAN      | 7698  | 1981-09-08  | 11552 | 0     | 30    |
| 7902  | FORD   | ANALYST       | 7566  | 1981-12-03  | 13652 | NULL  | 20    |
| 7934  | MILLER | CLERK         | 7782  | 1982-01-23  | 14892 | NULL  | 10    |
+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)

Activate Windows
Go to Settings to activate Windows.

Windows Type here to search 19:42
16-01-2025
```

Q2. Write a SQL Query to print data of all employee whose job is **CLERK**?

Select * from emp where job='CLERK';

```
MySQL 8.0 Command Line Client
mysql> select * from emp where job='CLERK';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job   | mgr   | hiredate | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800    | NULL  | 20   |
| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 15692  | NULL  | 20   |
| 7900 | JAMES  | CLERK | 7698 | 1981-12-03 | 21212  | NULL  | 30   |
| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 14892  | NULL  | 10   |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from emp where job='MANAGER';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job   | mgr   | hiredate | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 11512  | NULL  | 20   |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 21563  | NULL  | 30   |
| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 10365  | NULL  | 10   |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from emp where job='SALESMAN';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job   | mgr   | hiredate | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 21500  | 150   | 30   |
| 7521 | WARD  | SALESMAN | 7698 | 1981-02-22 | 10000  | 500   | 30   |
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 12789  | 1400  | 30   |
| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 11552  | 0     | 30   |
+-----+-----+-----+-----+-----+-----+-----+-----+
          Activate Windows
          Go to Settings to activate Windows.

Windows 10
Type here to search
Brea... 19:47
16-01-2025
```

Q2. Write a SQL Query to calculate annual salary of all employee?

Select sal,sal*12 from emp;

```
MySQL 8.0 Command Line Client
+-----+-----+
| 13652 | 163824 |
| 14892 | 178704 |
| 23000 | 276000 |
+-----+-----+
16 rows in set (0.01 sec)

mysql> select sal as Monthly_Salary,sal*12 as Annual_Salary from emp;
+-----+-----+
| Monthly_Salary | Annual_Salary |
+-----+-----+
|      NULL     |       NULL    |
|        800      |       9600    |
|      21500     |     258000   |
|     10000      |     120000   |
|     11512      |     138144   |
|     12789      |     153468   |
|     21563      |     258756   |
|     10365      |     124380   |
|     17845      |     214140   |
|     10234      |     122808   |
|     11552      |     138624   |
|     15692      |     188304   |
|     21212      |     254544   |
|     13652      |     163824   |
|     14892      |     178704   |
|     23000      |     276000   |
+-----+-----+
16 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.

Q3. Write a SQL Query to print data of all Male Candidate?

Select * from emp where gender='M';

Q3. Write a SQL Query to print data of all Female Candidate?

Select * from emp where gender='F';

Q1.Explain Aggregate function in SQL?

Ans: An Aggregate function in SQL performs a calculation on a set of values and return single result. Generally it is used with group by clause in SQL

We dicuss following aggregate function in SQL

1. **Sum():**Returns the total sum of all values of a numeric column.

Syntax:

Select sum(column name) from tablename;

Example:

Select sum(sal) from emp;

```
MySQL 8.0 Command Line Client
16 rows in set (0.00 sec)

mysql> select sum(sal) from emp;
+-----+
| sum(sal) |
+-----+
| 216608 |
+-----+
1 row in set (0.00 sec)

mysql> -
```

Activate Windows
Go to Settings to activate Windows.



Example:

1. Write a SQL Query to print sum salary of all employee whose deptno is 10

Select sum(sal) from emp where deptno=10;

2. Write a SQL Query to print sum salary of all employee whose deptno is 20

Select sum(sal) from emp where deptno=20;

3. Write a SQL Query to print sum salary of all employee whose deptno is 30

Select sum(sal) from emp where deptno=30;

4. Write a SQL Query to print sum salary of all employee whose job is Clerk

Select sum(sal) from emp where job='CLERK';

5. Write a SQL Query to print sum salary of all employee whose job is Manager

Select sum(sal) from emp where job='MANAGER';

6. Write a SQL Query to print sum salary of all male employee

Select sum(sal) from emp where gender='M';

7. Write a SQL Query to print sum salary of all female employee

Select sum(sal) from emp where gender='F';

2. Avg(): It will return average value of particular column

Syntax:

Select avg(column) from tablename;

Select avg(sal) from emp;



```
MySQL 8.0 Command Line Client
+-----+
| sum(sal) |
+-----+
| 216608 |
+-----+
1 row in set (0.00 sec)

mysql> select avg(sal) from emp;
+-----+
| avg(sal)      |
+-----+
| 14440.533333333333 |
+-----+
1 row in set (0.00 sec)

mysql> -
```

Activate Windows
Go to Settings to activate Windows.

8. Write a SQL Query to print average salary of all employee whose deptno is 10

Select avg(sal) from emp where deptno=10;

9. Write a SQL Query to print average salary of all employee whose deptno is 20

Select avg(sal) from emp where deptno=20;

10. Write a SQL Query to print average salary of all employee whose deptno is 30

Select avg(sal) from emp where deptno=30;

11. Write a SQL Query to print average salary of all employee whose job is Clerk

Select avg(sal) from emp where job='CLERK';

12. Write a SQL Query to print average salary of all employee whose job is Manager

Select avg(sal) from emp where job='MANAGER';

13. Write a SQL Query to print average salary of all male employee

Select avg(sal) from emp where gender='M';

14. Write a SQL Query to print average salary of all female employee

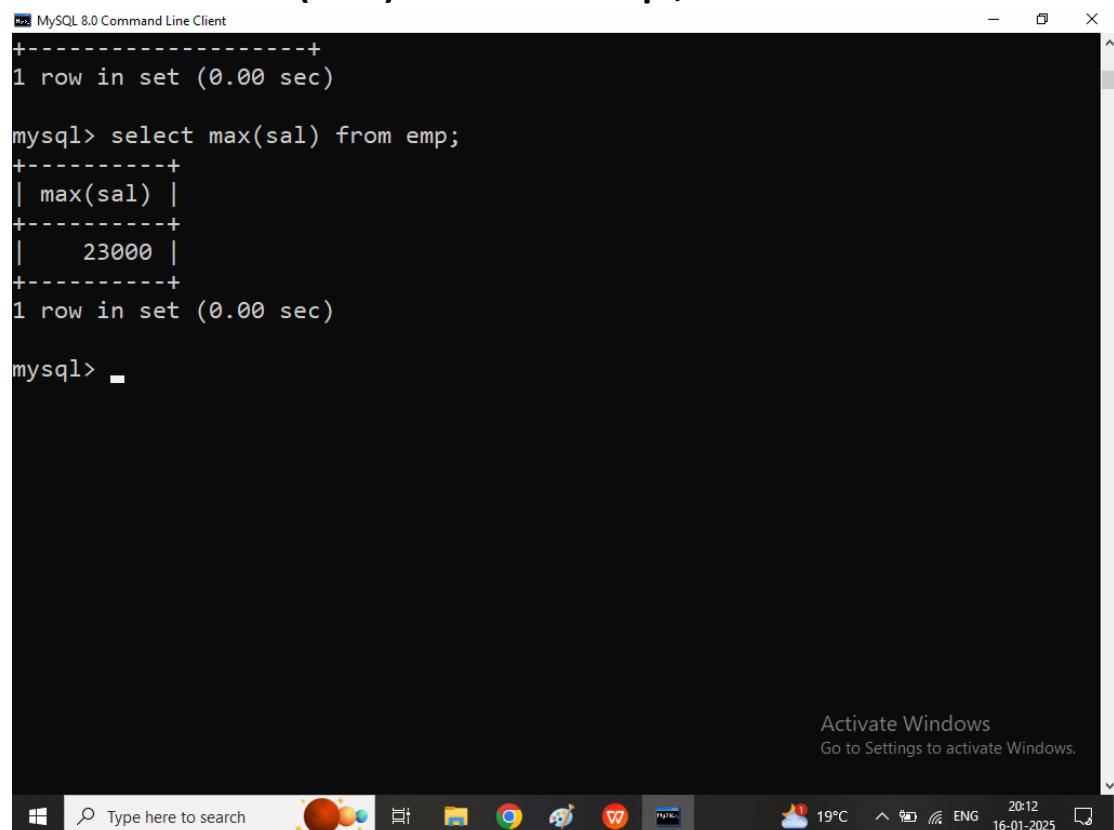
Select avg(sal) from emp where gender='F';

3. Max(): It will return maximum value of a particular column

Syntax:

Select max(column) from tablename;

Select max(sal) from emp;



```
MySQL 8.0 Command Line Client
+-----+
1 row in set (0.00 sec)

mysql> select max(sal) from emp;
+-----+
| max(sal) |
+-----+
|    23000 |
+-----+
1 row in set (0.00 sec)

mysql> -
```

Activate Windows
Go to Settings to activate Windows.

Windows Taskbar: Type here to search, Start button, File Explorer, Edge, Google Chrome, Microsoft Word, Microsoft Powerpoint, Weather (19°C), Network, ENG, 20:12, 16-01-2025, Task View icon.

15. Write a SQL Query to print maximum salary of all employee whose deptno is 10

Select max(sal) from emp where deptno=10;

16. Write a SQL Query to print maximum salary of all employee whose deptno is 20

Select max(sal) from emp where deptno=20;

17. Write a SQL Query to print maximum salary of all employee whose deptno is 30

Select max(sal) from emp where deptno=30;

18. Write a SQL Query to print maximum salary of all employee whose job is Clerk

Select avg(sal) from emp where job='CLERK';

19. Write a SQL Query to print average salary of all employee whose job is Manager

Select avg(sal) from emp where job='MANAGER';

20. Write a SQL Query to print average salary of all male employee

Select avg(sal) from emp where gender='M';

21. Write a SQL Query to print average salary of all female employee

Select avg(sal) from emp where gender='F';

4. Min(): It will return minimum value of a particular column

Syntax:

Select min(sal) from emp;

```
MySQL 8.0 Command Line Client
+-----+
| 23000 |
+-----+
1 row in set (0.00 sec)

mysql> select min(sal) from emp;
+-----+
| min(sal) |
+-----+
|     800 |
+-----+
1 row in set (0.00 sec)

mysql> ■
```

Activate Windows
Go to Settings to activate Windows.



5. Count(): It will return number of rows or number values in a particular column exclude null values

Syntax:

Select count(*) from tableName;

Example:

Write a SQL Query to count Number of Employee in emp table

Select count(*) from emp;

```
MySQL 8.0 Command Line Client
+-----+
| 23000 |
+-----+
1 row in set (0.00 sec)

mysql> select min(sal) from emp;
+-----+
| min(sal) |
+-----+
|     800 |
+-----+
1 row in set (0.00 sec)

mysql> Select count(*) from emp;
+-----+
| count(*) |
+-----+
|      16 |
+-----+
1 row in set (0.04 sec)

mysql> ■
```

Activate Windows
Go to Settings to activate Windows.



Select count(column name) from emp;
Select count(deptno) from emp;

```
MySQL 8.0 Command Line Client
+-----+
| min(sal) |
+-----+
|     800 |
+-----+
1 row in set (0.00 sec)

mysql> Select count(*) from emp;
+-----+
| count(*) |
+-----+
|      16 |
+-----+
1 row in set (0.04 sec)

mysql> Select count(deptno) from emp;
+-----+
| count(deptno) |
+-----+
|        15 |
+-----+
1 row in set (0.00 sec)

mysql> ■
```

Activate Windows
Go to Settings to activate Windows.



Q4. Explain order by clause in SQL?

Ans: if we want to sort data in sql then we should go for order by clause

The order by clause by default sort data in ascending order

Syntax:

Select column list from tablename order by column name;

OR

Select column list from tablename order by column name ASC | DESC;

Q1. Write a SQL Query to print data of all employee on the basis of salary in ascending order?

Select * from emp order by sal;

```
+-----+  
1 row in set (0.00 sec)  
  
mysql> select * from emp order by sal;  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| empno | ename  | job   | mgr   | hiredate | sal    | comm  | deptno |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
|      1 | NULL    | NULL   | NULL  | NULL     | NULL   | NULL  | NULL   |  
| 7369  | SMITH   | CLERK  | 7902  | 1980-12-17 | 800    | NULL  | 20    |  
| 7521  | WARD    | SALESMAN | 7698  | 1981-02-22 | 10000  | 500   | 30    |  
| 7839  | KING    | PRESIDENT | NULL  | 1981-11-17 | 10234  | NULL  | 10    |  
| 7782  | CLARK   | MANAGER | 7839  | 1981-06-09 | 10365  | NULL  | 10    |  
| 7566  | JONES   | MANAGER | 7839  | 1981-04-02 | 11512  | NULL  | 20    |  
| 7844  | TURNER  | SALESMAN | 7698  | 1981-09-08 | 11552  | 0     | 30    |  
| 7654  | MARTIN  | SALESMAN | 7698  | 1981-09-28 | 12789  | 1400  | 30    |  
| 7902  | FORD    | ANALYST | 7566  | 1981-12-03 | 13652  | NULL  | 20    |  
| 7934  | MILLER  | CLERK  | 7782  | 1982-01-23 | 14892  | NULL  | 10    |  
| 7876  | ADAMS   | CLERK  | 7788  | 1983-01-12 | 15692  | NULL  | 20    |  
| 7788  | SCOTT   | ANALYST | 7566  | 1982-12-09 | 17845  | NULL  | 20    |  
| 7900  | JAMES   | CLERK  | 7698  | 1981-12-03 | 21212  | NULL  | 30    |  
| 7499  | ALLEN   | SALESMAN | 7698  | 1981-02-20 | 21500  | 150   | 30    |  
| 7698  | BLAKE   | MANAGER | 7839  | 1981-05-01 | 21563  | NULL  | 30    |  
| 7935  | AMAN    | JAVA DEVELOPER | 7698  | 2024-01-01 | 23000  | 150   | 30    |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
16 rows in set (0.00 sec)  
Activate Windows  
Go to Settings to activate Windows.
```

Q1. Write a SQL Query to print data of all employee on the basis of salary in descending order?

Select * from emp order by sal desc;

```
Select MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499 | ALLEN | SALESMAN      | 7698 | 1981-02-20 | 21500 | 150   | 30
| 7698 | BLAKE  | MANAGER        | 7839 | 1981-05-01 | 21563 | NULL   | 30
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150   | 30
+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql> select * from emp order by sal desc;
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr  | hiredate | sal   | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN  | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150   | 30
| 7698 | BLAKE  | MANAGER        | 7839 | 1981-05-01 | 21563 | NULL   | 30
| 7499 | ALLEN | SALESMAN      | 7698 | 1981-02-20 | 21500 | 150   | 30
| 7900 | JAMES  | CLERK          | 7698 | 1981-12-03 | 21212 | NULL   | 30
| 7788 | SCOTT  | ANALYST        | 7566 | 1982-12-09 | 17845 | NULL   | 20
| 7876 | ADAMS  | CLERK          | 7788 | 1983-01-12 | 15692 | NULL   | 20
| 7934 | MILLER | CLERK          | 7782 | 1982-01-23 | 14892 | NULL   | 10
| 7902 | FORD   | ANALYST        | 7566 | 1981-12-03 | 13652 | NULL   | 20
| 7654 | MARTIN | SALESMAN      | 7698 | 1981-09-28 | 12789 | 1400   | 30
| 7844 | TURNER | SALESMAN      | 7698 | 1981-09-08 | 11552 | 0      | 30
| 7566 | JONES  | MANAGER        | 7839 | 1981-04-02 | 11512 | NULL   | 20
| 7782 | CLARK  | MANAGER        | 7839 | 1981-06-09 | 10365 | NULL   | 10
| 7839 | KING   | PRESIDENT     | NULL  | 1981-11-17 | 10234 | NULL   | 10
| 7521 | WARD   | SALESMAN      | 7698 | 1981-02-22 | 100000 | 500    | 30
| 7369 | SMITH  | CLERK          | 7902 | 1980-12-17 | 800    | NULL   | 20
| 1    | NULL   | NULL          | NULL  | NULL       | NULL  | NULL   | NULL
+-----+-----+-----+-----+-----+-----+-----+-----+
Windows 10 - Private Window 20
800 settings Private Window 20
20:23 16-01-2025
```

Q3. Write a SQL Query to print data of all employee on the basis of name in ascending order?

```
MySQL 8.0 Command Line Client

mysql> select * from emp order by name;
ERROR 1054 (42S22): Unknown column 'name' in 'order clause'
mysql> select * from emp order by ename;
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job      | mgr    | hiredate | sal     | comm   | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
|     1 | NULL  | NULL    | NULL   | NULL    | NULL    | NULL   | NULL   |
| 7876 | ADAMS | CLERK   | 7788   | 1983-01-12 | 15692  | NULL   | 20    |
| 7499 | ALLEN | SALESMAN | 7698   | 1981-02-20 | 21500  | 150    | 30    |
| 7935 | AMAN  | JAVA DEVELOPER | 7698   | 2024-01-01 | 23000  | 150    | 30    |
| 7698 | BLAKE  | MANAGER  | 7839   | 1981-05-01 | 21563  | NULL   | 30    |
| 7782 | CLARK  | MANAGER  | 7839   | 1981-06-09 | 10365  | NULL   | 10    |
| 7902 | FORD   | ANALYST  | 7566   | 1981-12-03 | 13652  | NULL   | 20    |
| 7900 | JAMES  | CLERK   | 7698   | 1981-12-03 | 21212  | NULL   | 30    |
| 7566 | JONES  | MANAGER  | 7839   | 1981-04-02 | 11512  | NULL   | 20    |
| 7839 | KING   | PRESIDENT | NULL   | 1981-11-17 | 10234  | NULL   | 10    |
| 7654 | MARTIN | SALESMAN | 7698   | 1981-09-28 | 12789  | 1400   | 30    |
| 7934 | MILLER | CLERK   | 7782   | 1982-01-23 | 14892  | NULL   | 10    |
| 7788 | SCOTT  | ANALYST  | 7566   | 1982-12-09 | 17845  | NULL   | 20    |
| 7369 | SMITH  | CLERK   | 7902   | 1980-12-17 | 800    | NULL   | 20    |
| 7844 | TURNER | SALESMAN | 7698   | 1981-09-08 | 11552  | 0      | 30    |
| 7521 | WARD   | SALESMAN | 7698   | 1981-02-22 | 10000  | 500   | 30    |
+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

Activate Windows
Go to Settings to activate Windows.
```

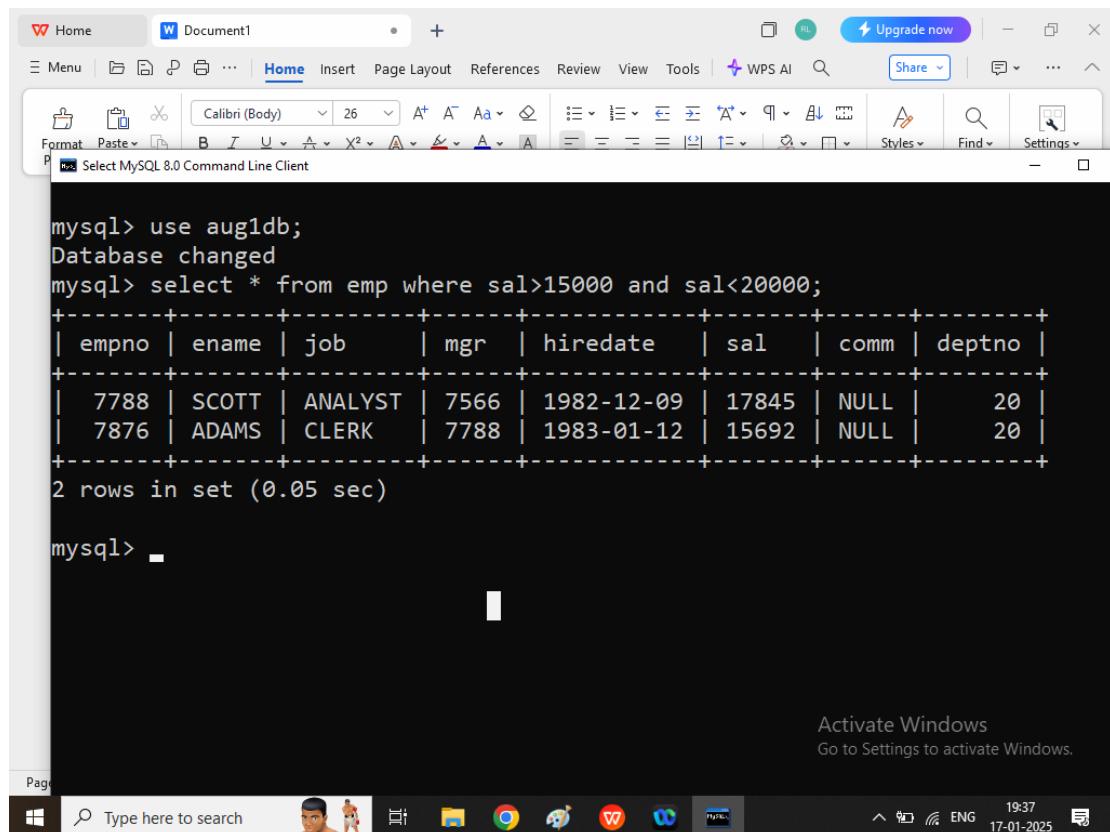
Q4. Write a SQL Query to print data of all employee on the basis of name in descending order?

```
MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql> select * from emp order by ename desc;
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal    | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7521  | WARD   | SALESMAN | 7698  | 1981-02-22 | 10000  | 500   | 30    |
| 7844  | TURNER | SALESMAN | 7698  | 1981-09-08 | 11552  | 0     | 30    |
| 7369  | SMITH   | CLERK  | 7902  | 1980-12-17 | 800    | NULL   | 20    |
| 7788  | SCOTT   | ANALYST | 7566  | 1982-12-09 | 17845  | NULL   | 20    |
| 7934  | MILLER  | CLERK  | 7782  | 1982-01-23 | 14892  | NULL   | 10    |
| 7654  | MARTIN  | SALESMAN | 7698  | 1981-09-28 | 12789  | 1400   | 30    |
| 7839  | KING    | PRESIDENT | NULL  | 1981-11-17 | 10234  | NULL   | 10    |
| 7566  | JONES   | MANAGER | 7839  | 1981-04-02 | 11512  | NULL   | 20    |
| 7900  | JAMES   | CLERK  | 7698  | 1981-12-03 | 21212  | NULL   | 30    |
| 7902  | FORD    | ANALYST | 7566  | 1981-12-03 | 13652  | NULL   | 20    |
| 7782  | CLARK   | MANAGER | 7839  | 1981-06-09 | 10365  | NULL   | 10    |
| 7698  | BLAKE   | MANAGER | 7839  | 1981-05-01 | 21563  | NULL   | 30    |
| 7935  | AMAN    | JAVA DEVELOPER | 7698  | 2024-01-01 | 23000  | 150   | 30    |
| 7499  | ALLEN   | SALESMAN | 7698  | 1981-02-20 | 21500  | 150   | 30    |
| 7876  | ADAMS   | CLERK  | 7788  | 1983-01-12 | 15692  | NULL   | 20    |
| 1    | NULL    | NULL   | NULL  | NULL      | NULL   | NULL   | NULL  |
+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)
```



Q1. Write a SQL Query to print data of all employee whose salary is greater than 15000 and less than 20000?



The screenshot shows a Microsoft Word document titled "Document1" with a MySQL command line client embedded in it. The client window displays the following SQL query and its results:

```
mysql> use aug1db;
Database changed
mysql> select * from emp where sal>15000 and sal<20000;
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job    | mgr   | hiredate | sal   | comm |
+-----+-----+-----+-----+-----+-----+-----+
| 7788  | SCOTT | ANALYST | 7566 | 1982-12-09 | 17845 | NULL  |
| 7876  | ADAMS | CLERK   | 7788 | 1983-01-12 | 15692 | NULL  |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.05 sec)

mysql> -
```

The results show two employees: SCOTT (empno 7788) and ADAMS (empno 7876), both with jobs ANALYST and CLERK respectively, and salaries between 15000 and 20000.

Q2. Explain Between operator in SQL?

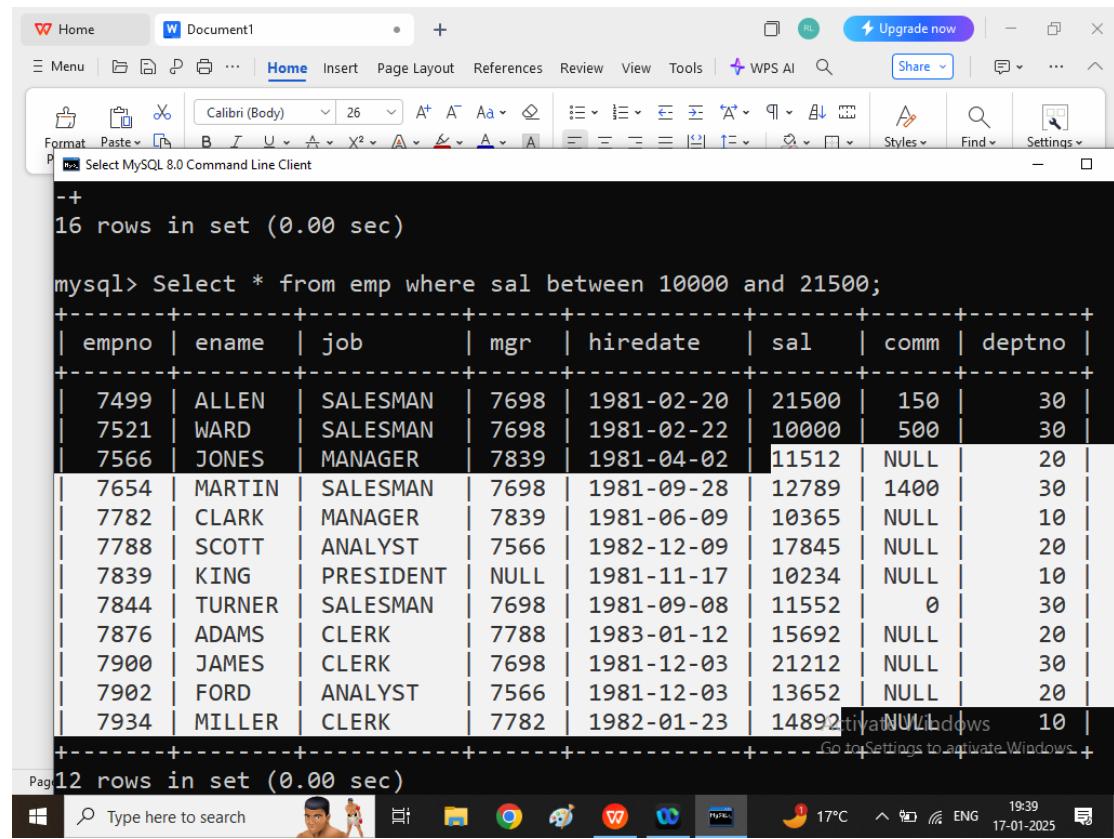
Ans: The Between operator in sql is used to filter the result set based on range of values. It is inclusive of both ranges

Syntax:

Select column list from tablename
where column between value1 and
value2;

Example:

Select * from emp where sal between
15000 and 20000;



The screenshot shows a Microsoft Windows desktop with a WPS Office document titled "Document1" open. The document contains a MySQL command line session. The command executed is "Select * from emp where sal between 10000 and 21500;". The result set displays 16 rows of employee information from the "emp" table, including columns: empno, ename, job, mgr, hiredate, sal, comm, and deptno. The data includes rows for employees like ALLEN, WARD, and JONES, along with various other employees and their details.

empno	ename	job	mgr	hiredate	sal	comm	deptno
7499	ALLEN	SALESMAN	7698	1981-02-20	21500	150	30
7521	WARD	SALESMAN	7698	1981-02-22	10000	500	30
7566	JONES	MANAGER	7839	1981-04-02	11512	NULL	20
7654	MARTIN	SALESMAN	7698	1981-09-28	12789	1400	30
7782	CLARK	MANAGER	7839	1981-06-09	10365	NULL	10
7788	SCOTT	ANALYST	7566	1982-12-09	17845	NULL	20
7839	KING	PRESIDENT	NULL	1981-11-17	10234	NULL	10
7844	TURNER	SALESMAN	7698	1981-09-08	11552	0	30
7876	ADAMS	CLERK	7788	1983-01-12	15692	NULL	20
7900	JAMES	CLERK	7698	1981-12-03	21212	NULL	30
7902	FORD	ANALYST	7566	1981-12-03	13652	NULL	20
7934	MILLER	CLERK	7782	1982-01-23	14892	NULL	10

The screenshot shows a WPS Office application window titled "Document1". The "Home" tab is selected in the ribbon. A status bar at the bottom indicates "Page 1" and "17-01-2025". The main area displays a MySQL command-line session:

```
12 rows in set (0.00 sec)

mysql> Select * from emp where sal not between 10000 and 21500;
+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr    | hiredate   | sal     | comm   | deptno |
+-----+-----+-----+-----+-----+-----+
| 7369  | SMITH | CLERK        | 7902   | 1980-12-17 | 800     | NULL   | 20      |
| 7698  | BLAKE  | MANAGER       | 7839   | 1981-05-01 | 21563   | NULL   | 30      |
| 7935  | AMAN   | JAVA DEVELOPER | 7698   | 2024-01-01 | 23000   | 150    | 30      |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

An "Activate Windows" watermark is visible in the center of the window.

Q2. Write a SQL query to print data of all employee whose deptno is 10 or 20 or 30?

The screenshot shows a Windows desktop environment with the MySQL 8.0 Command Line Client window open. The window title is "MySQL 8.0 Command Line Client". The SQL command executed is "select * from emp where deptno=10 or deptno=20 or deptno=30;". The result set displays 15 rows of employee data from the emp table, filtered by department numbers 10, 20, or 30. The columns are empno, ename, job, mgr, hiredate, sal, and comm. The data includes various employees like Smith, Allen, and King, with their respective details. The MySQL client interface includes a sidebar with file navigation icons and a status bar at the bottom.

empno	ename	job	mgr	hiredate	sal	comm
7369	SMITH	CLERK	7902	1980-12-17	800	NULL
7499	ALLEN	SALESMAN	7698	1981-02-20	21500	150
7521	WARD	SALESMAN	7698	1981-02-22	10000	500
7566	JONES	MANAGER	7839	1981-04-02	11512	NULL
7654	MARTIN	SALESMAN	7698	1981-09-28	12789	1400
7698	BLAKE	MANAGER	7839	1981-05-01	21563	NULL
7782	CLARK	MANAGER	7839	1981-06-09	10365	NULL
7788	SCOTT	ANALYST	7566	1982-12-09	17845	NULL
7839	KING	PRESIDENT	NULL	1981-11-17	10234	NULL
7844	TURNER	SALESMAN	7698	1981-09-08	11552	0
7876	ADAMS	CLERK	7788	1983-01-12	15692	NULL
7900	JAMES	CLERK	7698	1981-12-03	21212	NULL
7902	FORD	ANALYST	7566	1981-12-03	13652	NULL
7934	MILLER	CLERK	7782	1982-01-23	14892	NULL
7935	AMAN	JAVA DEVELOPER	7698	2024-01-01	23000	150

15 rows in set (0.00 sec)

Q2. Explain In operator in SQL?

Ans: The In Operator in SQL is used to filter records where a specified column matches any value provide in the list

This is shortcut of multiple or conditions

Syntax:

Select column list from tablename where column name in(value1,value2,value3.....);

Example

Write a SQL query to print data of all employee whose deptno is 10 or 20 or 30?

The screenshot shows a Windows desktop environment with a MySQL 8.0 Command Line Client window open. The window title is "MySQL 8.0 Command Line Client". The command entered is "mysql> select * from emp where deptno in(10,20,30);". The result set displays 15 rows of employee data from the 'emp' table, filtered by department numbers 10, 20, or 30. The columns are: empno, ename, job, mgr, hiredate, sal, and comm. The data includes various roles like CLERK, SALESMAN, and MANAGER, along with their corresponding details such as hire dates and salaries. At the bottom of the result set, it says "15 rows in set (0.00 sec)". The Windows taskbar at the bottom shows icons for search, file explorer, browser, and other applications, along with system status indicators like temperature (17°C), battery level (ENG), and date/time (17-01-2025).

empno	ename	job	mgr	hiredate	sal	comm
7369	SMITH	CLERK	7902	1980-12-17	800	NULL
7499	ALLEN	SALESMAN	7698	1981-02-20	21500	150
7521	WARD	SALESMAN	7698	1981-02-22	10000	500
7566	JONES	MANAGER	7839	1981-04-02	11512	NULL
7654	MARTIN	SALESMAN	7698	1981-09-28	12789	1400
7698	BLAKE	MANAGER	7839	1981-05-01	21563	NULL
7782	CLARK	MANAGER	7839	1981-06-09	10365	NULL
7788	SCOTT	ANALYST	7566	1982-12-09	17845	NULL
7839	KING	PRESIDENT	NULL	1981-11-17	10234	NULL
7844	TURNER	SALESMAN	7698	1981-09-08	11552	0
7876	ADAMS	CLERK	7788	1983-01-12	15692	NULL
7900	JAMES	CLERK	7698	1981-12-03	21212	NULL
7902	FORD	ANALYST	7566	1981-12-03	13652	NULL
7934	MILLER	CLERK	7782	1982-01-23	14892	NULL
7935	AMAN	JAVA DEVELOPER	7698	2024-01-01	23000	150

Q2. write a SQL query to print data of all employee whose job is CLERK, MANAGER or SALESMAN?

Q3.write a SQL query to print data of all employee whose job is not CLERK, MANAGER or SALESMAN?

```
MySQL 8.0 Command Line Client
15 rows in set (0.00 sec)

mysql> select * from emp where job in('clerk','manager','salesman');
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job    | mgr   | hiredate | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7369 | SMITH | CLERK | 7902  | 1980-12-17 | 800   | NULL  | 20   |
| 7499 | ALLEN | SALESMAN | 7698  | 1981-02-20 | 21500 | 150   | 30   |
| 7521 | WARD  | SALESMAN | 7698  | 1981-02-22 | 10000 | 500   | 30   |
| 7566 | JONES | MANAGER | 7839  | 1981-04-02 | 11512 | NULL  | 20   |
| 7654 | MARTIN | SALESMAN | 7698  | 1981-09-28 | 12789 | 1400  | 30   |
| 7698 | BLAKE | MANAGER | 7839  | 1981-05-01 | 21563 | NULL  | 30   |
| 7782 | CLARK | MANAGER | 7839  | 1981-06-09 | 10365 | NULL  | 10   |
| 7844 | TURNER | SALESMAN | 7698  | 1981-09-08 | 11552 | 0     | 30   |
| 7876 | ADAMS | CLERK  | 7788  | 1983-01-12 | 15692 | NULL  | 20   |
| 7900 | JAMES | CLERK  | 7698  | 1981-12-03 | 21212 | NULL  | 30   |
| 7934 | MILLER | CLERK  | 7782  | 1982-01-23 | 14892 | NULL  | 10   |
+-----+-----+-----+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)

mysql> select * from emp where job not in('clerk','manager','salesman');
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job    | mgr   | hiredate | sal   | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7788 | SCOTT | ANALYST | 7566  | 1982-12-09 | 17845 | NULL  | 20   |
| 7839 | KING  | PRESIDENT | NULL  | 1981-11-17 | 10234 | NULL  | 10   |
| 7902 | FORD  | ANALYST | 7566  | 1981-12-03 | 13652 | NULL  | 20   |
+-----+-----+-----+-----+-----+-----+-----+

```

Q3. Explain like Operator in SQL?

Ans: The Like operator in SQL is used in where clause to search specific pattern in a column

There are two special / wildcard characters used with like operators
1. %: Represent zero,one or more characters

2. _ : The underscore sign represent single character

Syntax:

Select column list from tablename
where column like 'pattern';

Example:

Write a SQL Query to print data of all employee whose name startsWith A?

```
MySQL [Select MySQL 8.0 Command Line Client] 1> select * from emp where ename like 'A%';
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr    | hiredate   | sal     | comm   | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN | SALESMAN    | 7698   | 1981-02-20 | 21500   | 150    | 30      |
| 7876  | ADAMS  | CLERK        | 7788   | 1983-01-12 | 15692   | NULL   | 20      |
| 7935  | AMAN   | JAVA DEVELOPER | 7698   | 2024-01-01 | 23000   | 150    | 30      |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

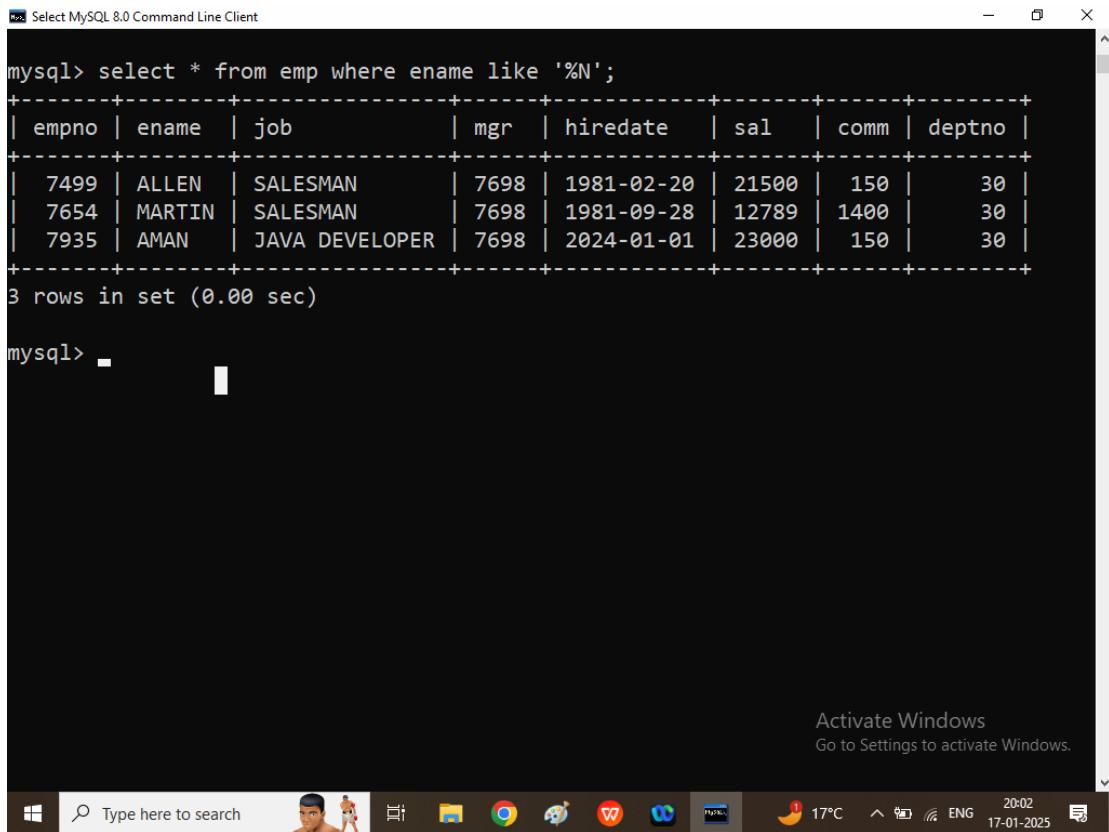
MySQL [Select MySQL 8.0 Command Line Client] 2>

```

Activate Windows
Go to Settings to activate Windows.



Q3. Write a SQL query to print data of all employee whose name last character is N?



The screenshot shows a Windows desktop with a MySQL 8.0 Command Line Client window open. The window title is "Select MySQL 8.0 Command Line Client". Inside, a SQL query is run:

```
mysql> select * from emp where ename like '%N';
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | job           | mgr    | hiredate      | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN   | SALESMAN       | 7698  | 1981-02-20    | 21500  | 150  | 30    |
| 7654  | MARTIN  | SALESMAN       | 7698  | 1981-09-28    | 12789  | 1400 | 30    |
| 7935  | AMAN    | JAVA DEVELOPER | 7698  | 2024-01-01    | 23000  | 150  | 30    |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

The command `select * from emp where ename like '%N';` retrieves data from the `emp` table where the employee name ends with 'N'. The results show three employees: ALLEN, MARTIN, and AMAN, each with their respective details like empno, ename, job, mgr, hiredate, sal, comm, and deptno.

Q3. Write a SQL query to print data of all employee whose name second character must be L?

```
MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | job      | mgr    | hiredate | sal     | comm   | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN   | SALESMAN | 7698   | 1981-02-20 | 21500   | 150    | 30    |
| 7654  | MARTIN  | SALESMAN | 7698   | 1981-09-28 | 12789   | 1400   | 30    |
| 7935  | AMAN    | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000   | 150    | 30    |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from emp where ename like '_L%';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | job      | mgr    | hiredate | sal     | comm   | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN   | SALESMAN | 7698   | 1981-02-20 | 21500   | 150    | 30    |
| 7698  | BLAKE   | MANAGER  | 7839   | 1981-05-01 | 21563   | NULL   | 30    |
| 7782  | CLARK   | MANAGER  | 7839   | 1981-06-09 | 10365   | NULL   | 10    |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Q3. Write a SQL query to print data of all employee whose name second Last character must be E?

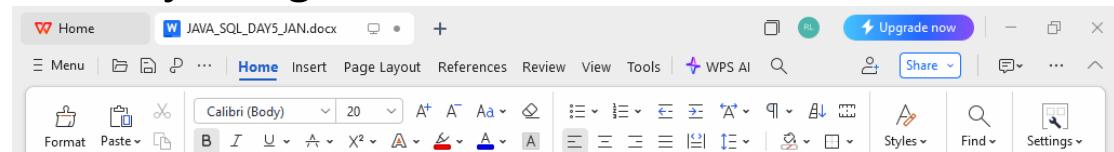
```
Select MySQL 8.0 Command Line Client
16 rows in set (0.00 sec)

mysql> select * from emp where ename like '%E_';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal    | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN  | SALESMAN | 7698  | 1981-02-20 | 21500  | 150   | 30    |
| 7566  | JONES   | MANAGER  | 7839  | 1981-04-02 | 11512  | NULL   | 20    |
| 7844  | TURNER  | SALESMAN | 7698  | 1981-09-08 | 11552  | 0     | 30    |
| 7900  | JAMES   | CLERK   | 7698  | 1981-12-03 | 21212  | NULL   | 30    |
| 7934  | MILLER  | CLERK   | 7782  | 1982-01-23 | 14892  | NULL   | 10    |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> ■
```

Activate Windows
Go to Settings to activate Windows.

Q3. write a SQL query to print data of all employee whose joining in month of 02?



```
W Home W JAVA_SQL_DAY5_JAN.docx □ + Upgrade now - X
☰ Menu ⌂ ⌂ ⌂ Home Insert Page Layout References Review View Tools WPS AI Share ...
```

MySQL 8.0 Command Line Client

```
mysql> select * from emp where hiredate like '%02%';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal    | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN  | SALESMAN | 7698  | 1981-02-20 | 21500  | 150   | 30    |
| 7521  | WARD   | SALESMAN | 7698  | 1981-02-22 | 10000  | 500   | 30    |
| 7566  | JONES   | MANAGER  | 7839  | 1981-04-02 | 11512  | NULL   | 20    |
| 7935  | AMAN   | JAVA DEVELOPER | 7698  | 2024-01-01 | 23000  | 150   |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from emp where hiredate like '__%-02-%__';
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | job   | mgr   | hiredate | sal    | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN  | SALESMAN | 7698  | 1981-02-20 | 21500  | 150   | 30    |
| 7521  | WARD   | SALESMAN | 7698  | 1981-02-22 | 10000  | 500   | 30    |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

Activate Windows
Go to Settings to activate Windows.

Q1. Explain Group by clause in SQL?

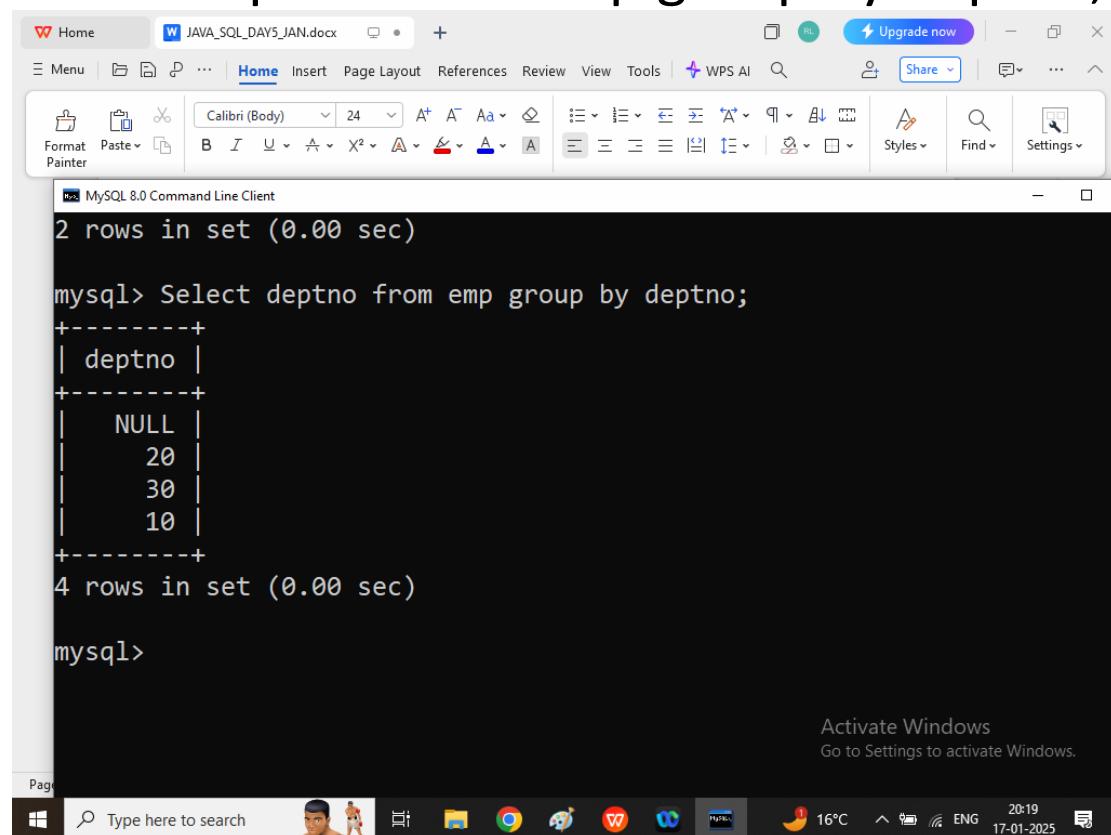
Ans: The Group by clause in SQL is used to groups rows in a tables on the basis of same values

It is also used sometimes with aggregate functions

Syntax:

Select column name from tablename
group by column;

Select deptno from emp group by deptno;



```
MySQL 8.0 Command Line Client
2 rows in set (0.00 sec)

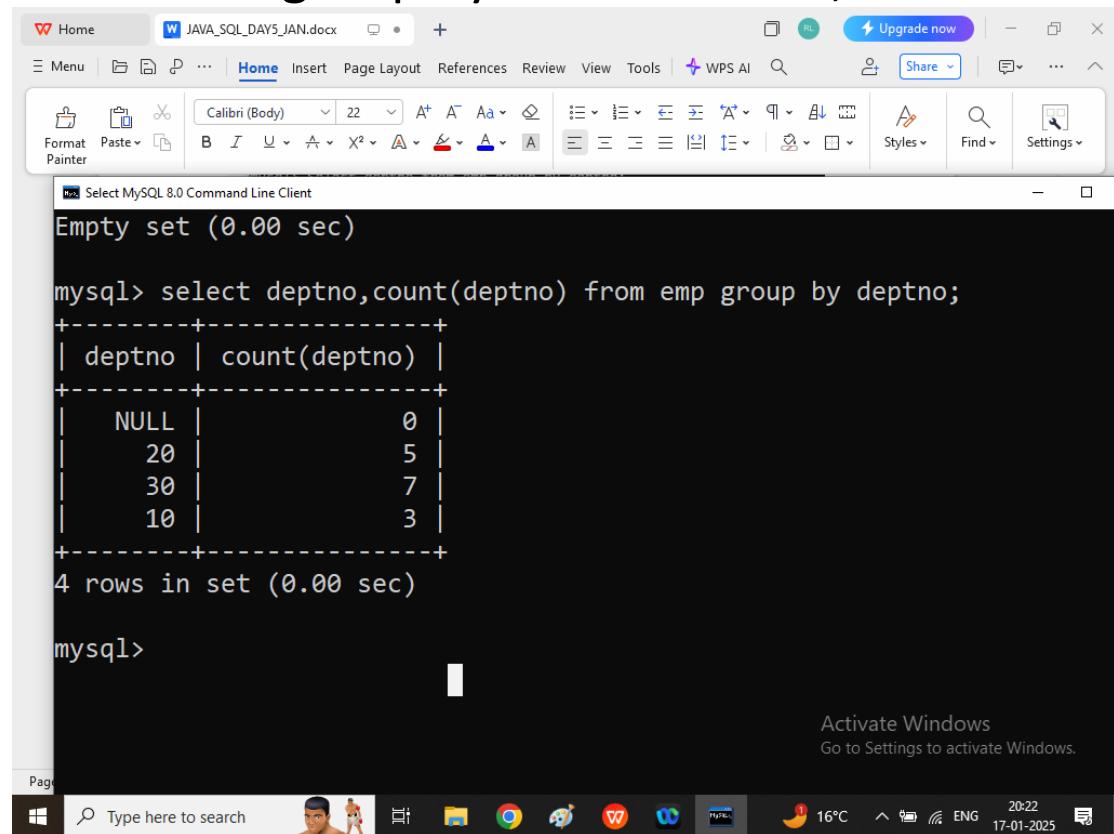
mysql> Select deptno from emp group by deptno;
+-----+
| deptno |
+-----+
| NULL  |
| 20    |
| 30    |
| 10    |
+-----+
4 rows in set (0.00 sec)

mysql>
```

The screenshot shows a Windows desktop environment with a WPS Office application window open. The window title is "JAVA_SQL_DAY5_JAN.docx". Inside the window, there is a MySQL command line client interface. The command "Select deptno from emp group by deptno;" is entered, and the output shows four rows: NULL, 20, 30, and 10. At the bottom of the MySQL window, the prompt "mysql>" is visible. The taskbar at the bottom of the screen shows various icons for applications like File Explorer, Google Chrome, and Microsoft Edge. A system tray icon for "Activate Windows" is present, along with the date and time (17-01-2025) and battery status.

Syntax:

Select column name, aggregate_function from tablename group by column name;



The screenshot shows a Microsoft Word document titled "JAVA_SQL_DAYS_JAN.docx". Inside the document, there is a screenshot of a MySQL command line client window. The client window displays the following SQL query and its results:

```
Empty set (0.00 sec)

mysql> select deptno,count(deptno) from emp group by deptno;
+-----+
| deptno | count(deptno) |
+-----+
| NULL   |          0 |
| 20     |          5 |
| 30     |          7 |
| 10     |          3 |
+-----+
4 rows in set (0.00 sec)

mysql>
```

The results show the count of employees for each department number (deptno). The department numbers listed are NULL, 20, 30, and 10, with counts of 0, 5, 7, and 3 respectively.

Q2. Write a SQL Query to print number of employee in each job?

Ans:

The screenshot shows a WPS Office application window titled "JAVA_SQL_DAYS_JAN.docx". The main content area displays a MySQL command line client interface. The SQL query executed is:

```
mysql> select job,count(job) from emp group by job;
```

The resulting output is a table:

job	count(job)
NULL	0
CLERK	4
SALESMAN	4
MANAGER	3
ANALYST	2
PRESIDENT	1
JAVA DEVELOPER	1

Below the table, the message "7 rows in set (0.00 sec)" is displayed. The MySQL prompt "mysql>" is shown again, followed by a blank line.

At the bottom right of the screen, there is a Windows taskbar with the message "Activate Windows" and "Go to Settings to activate Windows." The taskbar also shows the date and time as "17-01-2025" and "20:25".

Q2. write a SQL query to count number of Male and Female Candidate?

Select gender,count(*) from emp group by gender;

Q1. Explain having clause in sql?

Ans: The having clause in SQL is used to filter the result of a group by operations based on aggregate functions.

It is similar with where clause, but is specially used to filter group data

Points:

1. Having work with the aggregate function(sum,avg,max,min,count)
2. It is applied after group by
3. While where filters rows before grouping, having filters groups after grouping

Syntax:

Select column,aggregate(column) from tableName

Group by column name

Having condition

Example:

Q1. Write a SQL Query to deptno who have at least 5 employee in the dept.

Select deptno,count(deptno) from emp group by deptno having count(deptno)>=5;

```
MySQL 8.0 Command Line Client
+-----+
2 rows in set (0.00 sec)

mysql> Select deptno,count(deptno) from emp group by deptno having count(deptno)>=5;
+-----+
| deptno | count(deptno) |
+-----+
|    20  |          5 |
|    30  |          7 |
+-----+
2 rows in set (0.00 sec)

mysql>

Activate Windows
Go to Settings to activate Windows.

Windows Start Type here to search File Explorer Google Paint Word Excel Break 19:52 18-01-2025
```

Q4. Write a SQL Query to print job who has at most 3 employee in each job?

```
MySQL 8.0 Command Line Client
+-----+
2 rows in set (0.00 sec)

mysql> select job,count(job) from emp group by job;
+-----+-----+
| job      | count(job) |
+-----+-----+
| NULL     |          0 |
| CLERK    |          4 |
| SALESMAN |          4 |
| MANAGER  |          3 |
| ANALYST  |          2 |
| PRESIDENT |         1 |
| JAVA DEVELOPER |       1 |
+-----+-----+
7 rows in set (0.00 sec)

mysql> select job,count(*) from emp group by job having count(*)<=3;
+-----+-----+
| job      | count(*) |
+-----+-----+
| NULL     |          1 |
| MANAGER  |          3 |
| ANALYST  |          2 |
| PRESIDENT |         1 |
| JAVA DEVELOPER |       1 |
+-----+-----+
5 rows in set (0.00 sec)

mysql> -
```

Activate Windows
Go to Settings to activate Windows.

Q1. write a SQL Query to print deptno who have sum salary at least 50000.

```
MySQL 8.0 Command Line Client
-> having sum(sal)>=50000;
ERROR 1054 (42S22): Unknown column 'depnto' in 'group statement'
mysql> select deptno,sum(sal) from emp group by deptno
-> having sum(sal)>50000;
+-----+-----+
| deptno | sum(sal) |
+-----+-----+
|    20  |   59501  |
|    30  |  121616  |
+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.



Q3. Write a SQL Query to count number of Male Candidate in each department?

```
MySQL 8.0 Command Line Client
mysql> select deptno,count(*) from emp
   -> where gender='M' group by deptno;
ERROR 1054 (42S22): Unknown column 'gender' in 'where clause'
mysql> desc dept;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| deptno | int       | NO   | PRI | NULL    |       |
| dname  | varchar(45) | YES  |     | NULL    |       |
| loc    | varchar(45) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
3 rows in set (0.02 sec)

mysql> select * from dept;
+-----+-----+-----+
| deptno | dname      | loc        |
+-----+-----+-----+
| 10    | CS          | BHOPAL    |
| 20    | Finance     | INDORE    |
| 30    | Agriculture | JABALPUR  |
| 40    | PHARAMA    | UJJAIN    |
+-----+-----+-----+
| 30    | Agriculture | JABALPUR  |
+-----+-----+-----+
Activate Windows
Go to Settings to activate Windows.

Windows Start Type here to search 19°C ENG 20:15 18-01-2025
```

Q1. Explain SQL Joins?

Ans: It is used to combine rows from multiple tables based on a related column between them.

There are three types join

1. Inner Join
2. Left Outer Join
3. Right outer Join
4. Cross join

Q1. Explain Inner Join?

Ans: The Inner Join keyword select records that have matching values in both table

The screenshot shows a Microsoft Paint window titled "Untitled - Paint". Inside the window, there is a Venn diagram illustrating an Inner Join. The left circle is labeled "emp" and contains the following data:

deptno
10
20
30
NULL

Below the circle, it says "16 rows" and "Table1". The right circle is labeled "dept" and contains the following data:

deptno
10
20
30
40

Below the circle, it says "4 rows" and "Table1". The intersection of the two circles is shaded green, representing the common values (10, 20, 30) which form the result of the inner join.

Syntax of Inner Join

```
select column list from tablename1  
inner join tablename2  
on table1.common_column=table2.common_column;
```

Example:

```
select * from emp  
inner join dept  
on emp.deptno=dept.deptno;
```

Activate Windows
Go to Settings to activate Windows.

103, 442px 1812 x 942px 100% 20:23 18-01-2025

```
MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+-----+-----+
| 7934 | MILLER | CLERK           | 7782 | 1982-01-23 | 14892 | NUL |
|      |          | INDORE          |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
| 7934 | MILLER | CLERK           | 7782 | 1982-01-23 | 14892 | NUL |
|      |          | BHOPAL          |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 15  |
| ARAMA |          | UJJAIN          |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 15  |
| riculture |          | JABALPUR        |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 15  |
| nance |          | INDORE          |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 15  |
|      |          | BHOPAL          |      |             |       |      |
+-----+-----+-----+-----+-----+-----+-----+
-----+
64 rows in set (0.00 sec)

mysql> select * from emp
    -> inner join dept
    -> on emp.deptno=dept.deptno;
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | job            | mgr   | hiredate | sal   | com |
|      |          | BHOPAL          |      |           |       |      |
+-----+-----+-----+-----+-----+-----+-----+
-----+

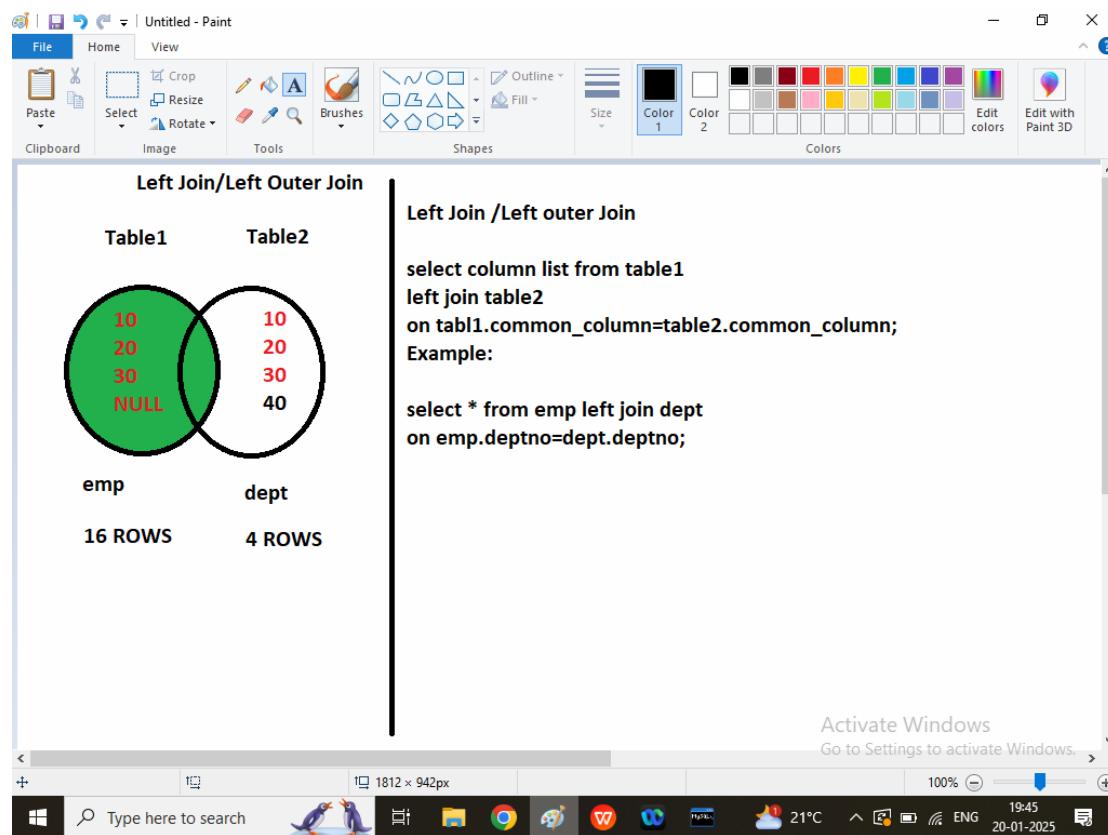
```



Q1. Explain Left JOIN or LEFT OUTER Join?

The SQL Left Join keywords return all matching and un matching records from the left table1 and only matching records from the right table table2

Ans:



```
>Select MySQL 8.0 Command Line Client
+-----+-----+-----+
| 20 | Finance | INDORE |
| 30 | Agriculture | JABALPUR |
| 40 | PHARAMA | UJJAIN |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from emp left join dept
-> on emp.deptno=dept.deptno;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job | mgr | hiredate | sal | comm | deptno | deptno | dname | loc |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | NULL | NULL | NULL | NULL | NULL | NULL | 20 | 20 | Finance | INDORE |
| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800 | NULL | 20 | 20 | Agriculture | JABALPUR |
| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 21500 | 150 | 30 | 30 | Agriculture | JABALPUR |
| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 10000 | 500 | 30 | 30 | Agriculture | JABALPUR |
| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 11512 | NULL | 20 | 20 | Finance | INDORE |
| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 12789 | 1400 | 30 | 30 | Agriculture | JABALPUR |
| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 21563 | NULL | 30 | 30 | Agriculture | JABALPUR |
| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 10365 | NULL | 10 | 10 | CS | BHOPAL |
| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 17845 | NULL | 20 | 20 | Finance | INDORE |
| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 10234 | NULL | 10 | 10 | CS | BHOPAL |
| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 11552 | 0 | 30 | 30 | Agriculture | JABALPUR |
| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 15692 | NULL | 20 | 20 | Finance | INDORE |
| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 21212 | NULL | 30 | 30 | Agriculture | JABALPUR |
| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 13652 | NULL | 20 | 20 | Finance | INDORE |
| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 14892 | NULL | 10 | 10 | CS | BHOPAL |
| 7935 | AMAN | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150 | 30 | 30 | Agriculture | JABALPUR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.



Q2. Write a SQL Query to print data empno,sal,job,deptno,dname,loc from emp and dept table?

Select
empno,sal,job,emp.deptno,dname,loc
from emp left join dept on
emp.deptno=dept.deptno;

```
>Select MySQL 8.0 Command Line Client
the right syntax to use near 'empno,sal,job,emp.deptno,dname,loc from emp left join dept on
emp.deptno=dept.deptno' at line 1
mysql> Select empno,sal,job,emp.deptno,dname,loc from emp left join dept on
-> emp.deptno=dept.deptno;
+-----+-----+-----+-----+-----+-----+
| empno | sal   | job    | deptno | dname  | loc    |
+-----+-----+-----+-----+-----+-----+
|     1 | NULL  | NULL   | NULL   | NULL   | NULL   |
| 7369 | 800   | CLERK  | 20     | Finance | INDORE |
| 7499 | 21500  | SALESMAN | 30     | Agriculture | JABALPUR |
| 7521 | 10000  | SALESMAN | 30     | Agriculture | JABALPUR |
| 7566 | 11512  | MANAGER | 20     | Finance  | INDORE |
| 7654 | 12789  | SALESMAN | 30     | Agriculture | JABALPUR |
| 7698 | 21563  | MANAGER | 30     | Agriculture | JABALPUR |
| 7782 | 10365  | MANAGER | 10     | CS      | BHOPAL  |
| 7788 | 17845  | ANALYST | 20     | Finance  | INDORE |
| 7839 | 10234  | PRESIDENT | 10     | CS      | BHOPAL  |
| 7844 | 11552  | SALESMAN | 30     | Agriculture | JABALPUR |
| 7876 | 15692  | CLERK   | 20     | Finance  | INDORE |
| 7900 | 21212  | CLERK   | 30     | Agriculture | JABALPUR |
| 7902 | 13652  | ANALYST | 20     | Finance  | INDORE |
| 7934 | 14892  | CLERK   | 10     | CS      | BHOPAL  |
| 7935 | 23000  | JAVA DEVELOPER | 30     | Agriculture | JABALPUR |
+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql>
```

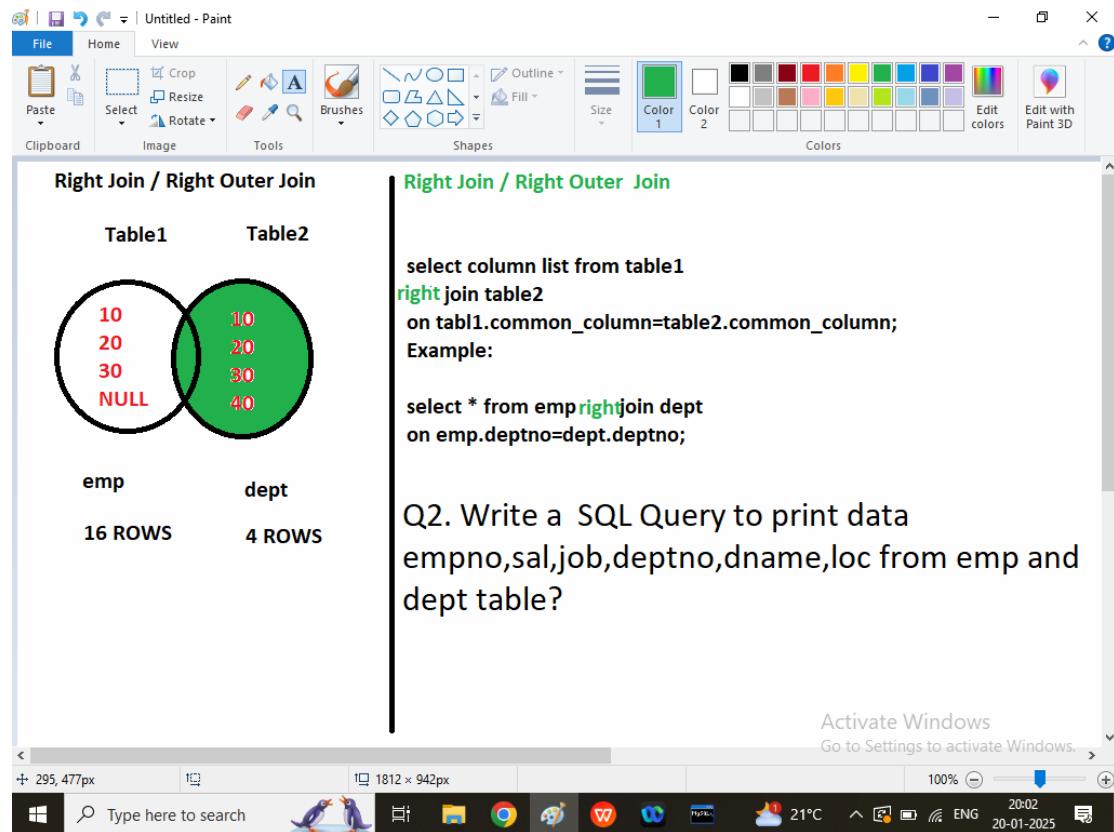
Activate Windows
Go to Settings to activate Windows.



Q1. Explain Left JOIN or LEFT OUTER Join?

The SQL Left Join keywords return all matching and un matching records from the left table1 and only matching records from the right table table2

Ans:



```
MySQL 8.0 Command Line Client
16 rows in set (0.00 sec)

mysql> select * from emp right join dept
-> on emp.deptno=dept.deptno;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job   | mgr   | hiredate | sal   | comm  | deptno | deptno | dname  | loc    |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 14892 | NULL  | 10    | 10    | CS     | BOPAL  |
| 7839 | KING    | PRESIDENT | NULL | 1981-11-17 | 10234 | NULL  | 10    | 10    | CS     | BOPAL  |
| 7782 | CLARK   | MANAGER | 7839 | 1981-06-09 | 18365 | NULL  | 10    | 10    | CS     | BOPAL  |
| 7902 | FORD    | ANALYST | 7566 | 1981-12-03 | 13652 | NULL  | 20    | 20    | Finance | INDORE |
| 7876 | ADAMS   | CLERK  | 7788 | 1983-01-12 | 15692 | NULL  | 20    | 20    | Finance | INDORE |
| 7788 | SCOTT   | ANALYST | 7566 | 1982-12-09 | 17845 | NULL  | 20    | 20    | Finance | INDORE |
| 7566 | JONES   | MANAGER | 7839 | 1981-04-02 | 11512 | NULL  | 20    | 20    | Finance | INDORE |
| 7369 | SMITH   | CLERK  | 7902 | 1980-12-17 | 800   | NULL  | 20    | 20    | Finance | INDORE |
| 7935 | AMAN    | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150   | 30    | 30    | Agriculture | JABALPUR |
| 7900 | JAMES   | CLERK  | 7698 | 1981-12-03 | 21212 | NULL  | 30    | 30    | Agriculture | JABALPUR |
| 7844 | TURNER  | SALESMAN | 7698 | 1981-09-08 | 11552 | 0     | 30    | 30    | Agriculture | JABALPUR |
| 7698 | BLAKE   | MANAGER | 7839 | 1981-05-01 | 21563 | NULL  | 30    | 30    | Agriculture | JABALPUR |
| 7654 | MARTIN  | SALESMAN | 7698 | 1981-09-28 | 12789 | 1400  | 30    | 30    | Agriculture | JABALPUR |
| 7521 | WARD    | SALESMAN | 7698 | 1981-02-22 | 10000 | 500   | 30    | 30    | Agriculture | JABALPUR |
| 7499 | ALLEN   | SALESMAN | 7698 | 1981-02-20 | 21500 | 150   | 30    | 30    | Agriculture | JABALPUR |
| NULL | NULL    | NULL    | NULL | NULL       | NULL  | NULL  | NULL  | 40    | PHARMA  | UJJAIN  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.

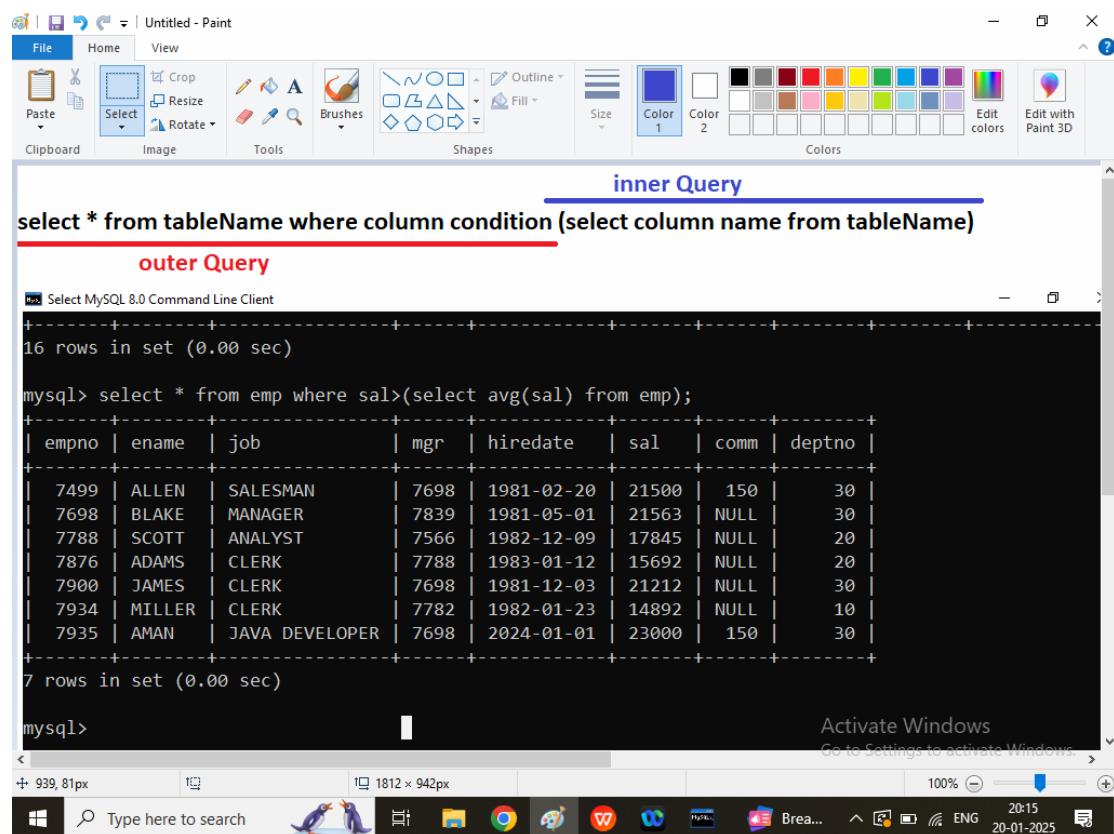
Q3. Explain sub Query in SQL?

Ans:

Query inside another Query is known as sub query

Example:

Write a SQL Query to print data of all employee whose salary is greater than average salary of the all employee?



```
inner Query
select * from tableName where column condition (select column name from tableName)

outer Query
mysql> select * from emp where sal > (select avg(sal) from emp);
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr   | hiredate | sal    | comm   | deptno |
+-----+-----+-----+-----+-----+-----+-----+
| 7499  | ALLEN | SALESMAN     | 7698  | 1981-02-20 | 21500  | 150    | 30      |
| 7698  | BLAKE  | MANAGER       | 7839  | 1981-05-01 | 21563  | NULL   | 30      |
| 7788  | SCOTT  | ANALYST       | 7566  | 1982-12-09 | 17845  | NULL   | 20      |
| 7876  | ADAMS  | CLERK         | 7788  | 1983-01-12 | 15692  | NULL   | 20      |
| 7900  | JAMES  | CLERK         | 7698  | 1981-12-03 | 21212  | NULL   | 30      |
| 7934  | MILLER | CLERK         | 7782  | 1982-01-23 | 14892  | NULL   | 10      |
| 7935  | AMAN   | JAVA DEVELOPER | 7698  | 2024-01-01 | 23000  | 150    | 30      |
+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

```
Select MySQL 8.0 Command Line Client
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7521 | WARD | SALESMAN    | 7698 | 1981-02-22 | 10000 | 500   | 30   |
| 7499 | ALLEN | SALESMAN    | 7698 | 1981-02-20 | 21500 | 150   | 30   |
| NULL  | NULL   | NULL          | NULL | NULL       | NULL  | NULL  | NULL  |
+-----+-----+-----+-----+-----+-----+-----+-----+
16 rows in set (0.00 sec)

mysql> select * from emp where sal=(select avg(sal) from emp);
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename | job          | mgr   | hiredate | sal    | comm  | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499 | ALLEN | SALESMAN    | 7698 | 1981-02-20 | 21500 | 150   | 30   |
| 7698 | BLAKE  | MANAGER      | 7839 | 1981-05-01 | 21563 | NULL  | 30   |
| 7788 | SCOTT  | ANALYST      | 7566 | 1982-12-09 | 17845 | NULL  | 20   |
| 7876 | ADAMS  | CLERK         | 7788 | 1983-01-12 | 15692 | NULL  | 20   |
| 7900 | JAMES  | CLERK         | 7698 | 1981-12-03 | 21212 | NULL  | 30   |
| 7934 | MILLER | CLERK         | 7782 | 1982-01-23 | 14892 | NULL  | 10   |
| 7935 | AMAN   | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150   | 30   |
+-----+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

Q1. Write a Sql Query to print data of employee whose salary is the largest in the emp table?

Select * from emp where sal=(select max(sal) from emp);

Q2. Write a Sql Query to print data of employee whose salary is the lowest in the emp table?

```
MySQL 8.0 Command Line Client
7 rows in set (0.00 sec)

mysql> Select * from emp where sal=(select max(sal) from emp);
+-----+-----+-----+-----+-----+-----+
| empno | ename | job      | mgr   | hiredate | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+
| 7935 | AMAN  | JAVA DEVELOPER | 7698 | 2024-01-01 | 23000 | 150  | 30   |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from emp where sal=(select min(sal) from emp);
+-----+-----+-----+-----+-----+-----+
| empno | ename | job      | mgr   | hiredate | sal    | comm | deptno |
+-----+-----+-----+-----+-----+-----+
| 7369 | SMITH | CLERK   | 7902 | 1980-12-17 | 800   | NULL  | 20   |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Activate Windows
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Q3. find employees who belongs to departments located in the **INDORE?**

Name deptno

```
MySQL Select MySQL 8.0 Command Line Client
4 rows in set (0.00 sec)

mysql> select ename,deptno from emp where deptno in(select deptno from dept where loc='INDORE');
+-----+-----+
| ename | deptno |
+-----+-----+
| SMITH |      20 |
| JONES |      20 |
| SCOTT |      20 |
| ADAMS |      20 |
| FORD  |      20 |
+-----+-----+
5 rows in set (0.00 sec)

mysql>
```

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