**MYSQL Database**

**What is database?**

A database is a collection of organized data that can be retrieved electronically.

**What is the difference between MySQL and SQL?**

SQL is known as the standard query language. It is used to interact with the database like MySQL. MySQL is a database that stores various types of data and keeps it safe.

**How to add columns in MySQL?**

ALTER TABLE table\_name

ADD COLUMN column\_name column\_definition [FIRST|AFTER existing\_column];

**How to change the column name in MySQL?**

ALTER TABLE table\_name

CHANGE COLUMN old\_column\_name new\_column\_name column\_definition [FIRST|AFTER existing\_column];

**How to delete columns in MySQL?**

ALTER TABLE table\_name DROP COLUMN column\_name1, column\_name2....;

**How to delete a table in MySQL?**

DROP TABLE table\_name;

**How to change the MySQL password?**

ALTER USER 'root'@'localhost' IDENTIFIED BY 'NewPassword';

**How to change the table name in MySQL?**

RENAME old\_table TO new\_table;

How to change the database name in MySQL?

mysqldump -u username -p "password" -R oldDbName > oldDbName.sql

Now, use the below command to import the data into the newly created database:

mysql -u username -p"password" newDbName < oldDbName.sql

**How to update the table in MySQL?**

UPDATE table\_name

SET field1=new-value1, field2=new-value2, ...

[WHERE Clause]

**How to drop the primary key in MySQL?**

ALTER TABLE table\_name DROP PRIMARY KEY;

**What is stored procedure syntax?**

CREATE PROCEDURE procedure\_name [ (parameter datatype [, parameter datatype]) ]

BEGIN

Body\_section of SQL statements

END;

**How to execute a stored procedure in MySQL?**

CALL stored\_procedure\_name (argument\_list);

**How to create a View in MySQL?**

A view is a database object whose values are based on the base table. It is a virtual table created by a query by joining one or more tables. It is operated similarly to the base table but does not contain any data of its own. If any changes occur in the underlying table, the same changes reflected in the View also.

CREATE [OR REPLACE] VIEW view\_name AS

SELECT columns

FROM tables

[WHERE conditions];

**Queries and Operators** :

OR operator:

select \* from employees e where name ='Vishal' or e.id =2;

IN operator:

It is used to replace multiple OR

Select \* from employees where state IN(“VA”,”CO”,”NY”,”TX”) ;

DISTINCT keyword:

Select distinct email from employees;

BETWEEN OPERATOR:

Select \* from customers where points between ‘1990-01-01’ AND ‘2000-01-01’;

LIKE operator :

Select \* from customers lastname LIKE (“B% ”)

Select \* from customers lastname LIKE (“%Y ”)

Select \* from customers lastname LIKE (“ \_\_\_y”)

Select \* from customers lastname LIKE (“ %B%”)

ISNULL operator :

Select \* from customers where phone IS NULL or name IS NOT NULL;

ORDER BY and DESC CLAUSE :

Select \* from customers ORDER BY first-name DESC;

LIMIT CLAUSE :

Select \* from customers LIMIT 6;

Select \* from customers LIMIT 6, 4; -> We get data after 6 rows and up to next 4 rows.

If we want to get 2 record from the table then

Select \* from customers LIMIT 2,1;

**Types of JOIN in MYSQL**:

They are 2 types of joins in MYSQL:

* Inner join : Returns records that have matching values in both tables
* Outer join : Again, outer divided into 2 types

1. Left join : Returns all records from the left table, and the matched records from the right table.
2. Right join : Returns all records from the right table, and the matched records from the left table.

**Inner join/ simple join** :

Select \* from orders o join customers c

On o.id = c.id;

**Other types of joins** :

Select \* from orders o join orders c

On o.firstname = c.lastname;

**Multiple joins** :

Select \* from orders o JOIN customers c

on o.id = c.id

JOIN employees e

on e.status = c.id