**what is SQL ?**

SQL is stands for structured query language

SQL is used to create database | table structure

SQL is a case in-sensitive language

Ex: INSERT , insert

SQL is create some command or query to make database or table structured.

**Types of SQL query or command**

a) DDL (data definition language)

b) DML (data manipulation language)

c) DQL (data query language)

d) TCL (Transactional control language)

**DDL(data definition language) :** create a database and table structures

Ex: a) create

b) alter

c) rename

d) change

e) drop

f) truncate

**a) how to create a database**

**what is database ?**

database is where we stored something in form of tables or information i.e called database.

**syntax :** create database databasename;

examples : create database ecommerceapp;

**b) how to create a table**

**what is table ?**

tables are in form of columns and rows where we stored information’s of users

**syntax :**

create table tablename

(

Columnname datatype(size) primary key auto\_increment,

Columnname datatype(size)

);

**Examples :**

create table tbl\_user

(

userid int primary key AUTO\_INCREMENT,

username varchar(155),

password varchar(200),

photo varchar(200),

gender varchar(155),

hobby varchar(200),

phone bigint,

countryname varchar(255)

)

create table tbl\_contact

(

contactid int AUTO\_INCREMENT primary key,

name varchar(255),

fname varchar(255),

lname varchar(255),

mobile bigint,

subject varchar(255),

message text

)

**b) Alter :** alter is used to add, modify , change a column name after create a table structured.

1) alter table tbl\_contact change fname firstname varchar(255);

2) alter table tbl\_user add statename varchar(255);

3) alter table tbl\_user add cityname varchar(255);

4) alter table tbl\_user add email varchar(255) after username;

**c) change :** change is used to change any column name after create any tables.

1) alter table tbl\_contact change fname firstname varchar(255);

**d) rename :** rename is used to rename a table after create a table structured.

Examples : rename table tbl\_user to users;

rename table tbl\_country to country;

rename table tbl\_contact to contact;

**e) drop :** drop is used to drop database structured and tables structured

a) drop database databasename;

ex: drop database ecommerceapp;

b) drop table tablename;

ex: drop table country;

**f) truncate :** truncate table tablename;

truncate is used to delete data from tables after truncate we never rollback our data from tables.

Ex: truncate table contact;

**2) DML: data manipulation language:**

DML stands for data manipulation language it means how to store data, delete data and update data.

**a) insert**

**b) delete**

**c) update**

**a)** insert: how to insert data in table there we used insert

syntax : insert into tablename(columnname) values(‘value’);

examples : insert into contact(name,firstname,lname,mobile,subject,message) values('brijesh','brijesh','pandya','9311212121','customer care contact','hi i am brijesh');

or

multiple data insert

insert into contact(name,firstname,lname,mobile,subject,message) values('yash','yash','pandya','9311212121','customer care contact','hi i am yash'),('akshay','akshay','pandya','9311212121','customer care contact','hi i am akshay');

or

insert into contact values('null','badi','badi','badi','9311212121','customer care contact','hi i am badi'),('null','mukesh','mukesh','patel','9311212121','customer care contact','hi i am patel');

**b) delete :** delete is used to delete all data or rows | particulars data | alternate data

1) all data delete

Examples : delete from tablename;

Delete from contact;

2) particular one data deleted

Examples : delete from tablename where columnname=’name’;

delete from tablename where id=’id’;

delete from contact where name='mukesh';

delete from contact where contactid='3';

**3) alternate data delete**

delete from contact where contactid in (1,4);

4) set range to delete data

Delete from contact where contactid between 5 and 10;

**c) update :** update is used to update data from tables

update tablename set columnname=’values’ where id=’id’;

examples : update users set username='akshay',email='akshay@gmail.com',password='ak545454',photo='akshay.png',hobby='teaching',phone='634565651',cityname='porbandar' where userid=1;

**c) DQL :** dql stands for data query language

syntax : select

a) select all table data

select \* from contact;

b) particular data select

select \* from contact where contactid=1;

b) particular data select with name

select \* from contact where name=’brijesh’;

c) alternate data select

SELECT \* from contact WHERE contactid in (1,3,5);

d) range data select using between

SELECT \* from contact WHERE contactid between 1 and 5;

e) range data select using range

SELECT \* from contact where contactid LIMIT 0,6;

e) select data using columns

select contactid,name,mobile from contact;

e) select data using columns using where

select contactid,name,mobile from contact where contactid=1;

select contactid,name,mobile from contact where contactid BETWEEN 1 and 2;

select contactid,name,mobile from contact where contactid limit (0,3);

select contactid,name,mobile from contact where contactid in (1,2);

**SQL function : sql function are two types**

**a) aggrigate function**

1) max()

Ex: select max(salary) as max\_salary from employee;

2) min()

Ex: select min(salary) as min\_salary from employee;

3) count()

Ex: select count(empid) as Total\_Numberof\_Employee from employee;

4) avg()

Ex: select avg(salary) as Average\_salary from employee;

5) sum()

Ex: select sum(salary) as Sumof\_Salary from employee;

**b) scalar function**

1) first() : note mysql is no more support first

Ex: select first(name) from employee;

2) last() : note mysql is no more support first

Ex: select last(name) from employee;

3) ucase()

Ex: select ucase(name) from employee;

4) lcase()

Ex: select lcase(name) from employee;

**4) TCL (transactional control language)**

a) commit

b) rollback