**What is SQL ?**

SQL stands for structured query language

SQL is a case in-sensitive language

SQL is used to create database | table structured

SQL is used to insert | delete | update | select data from database

SQL is used to join data from tables

**Types of SQL commands or query**

a) DDL (data definition language)

b) DML (data manipulations language)

c) DQL (data query language)

d) TCL (transactional query language)

**DDL** : ddl stands for data definition language

Ex: create | alter | drop | truncate | change | rename

a) how to create a database

syntax : create database databasename;

ex: create database shopsdb;

b) how to create tables

syntax : create table tablename

(

columnname datatype(size) primary key auto\_increment,

columnname datatype(size)

)

Table datatype chart

Fieldname datatype(size)

Id int(default size(11))

name char, varchar(0-255)

mobile bigint(default size(20))

text,address,message text

date date

datetime datetime

images varchar, blob

salary float

ex: create table contactus

(

contactid int AUTO\_INCREMENT primary key,

name varchar(255),

email varchar(255),

firstname varchar(155),

lastname varchar(125),

mobile bigint,

message text

);

create table country

(

countryid int AUTO\_INCREMENT primary key,

countryname varchar(255)

);

**Alter :**

Alter is used to add , modify or change column name after create table

a) how to add new column

alter table country add addeddate date;

b) how to modify or change columnanme

alter table contactus change mobile phone bigint;

c) alter table employee add address text;

d) alter table employee add photo varchar(255) after emplid;

e) alter table employee add hobby varchar(255) after address;

**change** : change should be change the columnname used in alter

ex: alter table contactus change mobile phone bigint;

**drop** : drop is used to drop database or table

drop delete database structured and tables structured and data both

after drop we cant rollback anything

ex: drop database databasename;

drop database shopsdb;

ex: drop table country;

**truncate :** truncate are used to truncate data from tables

**ex:** truncate table tablename;

truncate table country;

Note : after truncate we never rollback data

**Rename :** rename is used to change table name or update table name

rename table contactus to tbl\_contactus

rename table country to tbl\_country

**DML : data manipulation language**

**a) insert b) delete c) update**

**a) insert :** insert is used to insert data in tables

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

ex: insert into tbl\_country(countryname,addeddate) values ('india','2023/07/15');

or

insert into tbl\_country(countryname,addeddate) values ('afganistan','15/07/2023'),('france','15/07/2023'),('dubai','15/07/2023');

or

insert into tbl\_country values ('null','australia','15/07/2023'),('null','Africa','15/07/2023'),('null','uk','15/07/2023');

**delete :** delete is used to delete all data and particular data and random data from table

a) delete from tablename;

ex: delete from tbl\_country;

b) delete from tablename where id=2;

ex: delete from tbl\_country where countryid=3

c) delete from tbl\_country where countryname='africa';

d) delete from tbl\_country where countryid in(2,5,8);

e) delete from tbl\_country where countryid BETWEEN 5 and 30;

**Note : after delete we will rollback our data**

**Update** : update is used to update particular data or rows

Ex: update tablename set columnname=’value’ where id=2;

Ex: update tbl\_country set countryname='canada' where countryid=4;

Ex: update tbl\_country set countryname='romania',addeddate='2023-07-15' where countryid=4;

**DQL :** DQL stands for data query language

a) select

select is used to select all data from table or fetch data

ex: select \* from tbl\_country

ex: select \* from tbl\_country where countryid=1;

ex: select \* from tbl\_country where countryname='india';

ex: select \* from tbl\_country where countryid in(1,4,5,6,8,9);

ex: select \* from tbl\_country where countryid BETWEEN 1 and 3;

ex: select \* from tbl\_country where countryid BETWEEN 1 and 10;

ex: select countryname from tbl\_country;

ex: select \* from tbl\_country where countryid limit 0,10;

ex: how to give alise name of any columnname

select countryname as cname from tbl\_country

difference between **order by** and **group by** :

**order by :** filter data **from tables in ascending and descending** order there we used order by