**Data Types**

1. Every column in a Table has a Name and a data type
2. While creating a table, we have to decide the name and type for each and every column
3. Type of the Column decides the data that is expected in the specified table
4. Different Data Types
   1. MySQL allows us to use the below data type

1.String Data Types

Varchar(Size)

2.Numeric Data Types

Int

Double

boolean

3.Data and Time Data Types

DATE - YYYY-MM-DD

Time - hh:mm:ss

DateTime - YYYY-MM-DD HH:MM:SS

YEAR – YYYY

Practical Demonstration:

create table xyz(a int) ## datatype of column is integer

insert into xyz values(9)

select \* from xyz

insert into xyz values('dev') ## cannot insert into strings into int datatype column

insert into xyz values(1.5) ## it will round off to upper bound

insert into xyz(a) values (1.4) ## it will round off to lower bound

select \* from xyz

alter table xyz add b double ## datatype of column b is double

insert into xyz(b) values (1.5) ## for float values

alter table xyz add (c boolean) ## datatype of column c is boolean

insert into xyz(c) values (True)

insert into xyz(c) values (False) ## 0 is considered as false

insert into xyz(c) values (10) ## non-zero is considered as true

alter table xyz add (d varchar(10)) ## Datatype is varchar

select \* from xyz

insert into xyz(d) values (10)

insert into xyz(d) values ('Dev')

alter table xyz add (e date) ##datatye is date

insert into xyz(e) values ('1996-12-06')

alter table xyz add (f time) ##datatye is time

insert into xyz(f) values ('12:11:10')

select \* from xyz

alter table xyz add (g datetime) ##datatye is datetime

insert into xyz(g) values ('1996-12-06 12:11:10')

alter table xyz add (h year) ##datatye is datetime

insert into xyz(h) values ('1996')