**CONSTRAINTS**

-- constraints : read notes from notebook

-- book :

-- id : int : PK, auto\_increment,

-- book\_name : varchar(50) : not null, unique

-- author\_name: varchar(50) : default 'NA',

-- price : int : check -> 99-999

-- genre : enum : comedy,horror

-- available\_in : set : online,offline,audio

-- selecting table in which we want to create table

use students;

-- creating book table with proper constraints

create table book(

id int primary key auto\_increment,

book\_name varchar(50) not null unique,

author\_name varchar(50) default 'NA',

price int check(price>99 and price<999) not null,

genre enum('comedy','horror'),

available\_in set('online','offline','audio')

);

-- getting all tables from database

show tables;

-- getting structure of newly created table - book

desc book;

-- inserting one correct record

insert into book(book\_name,author\_name,price,genre,available\_in)values("sql","tejas k",250,'comedy','online,offline');

-- use below command if you have entered wrong data

-- by running below command you are going to remove all records from table

truncate book;

-- getting all records from table

select \* from book;

-- adding wrong data and checking whta types of error we get

-- adding duplicate book\_name (voilating uniue constraint)

insert into book(book\_name,author\_name,price,genre,available\_in)values("sql","tejas k",250,'comedy','online,offline');

-- Error Code: 1062. Duplicate entry 'sql' for key 'book.book\_name'

-- not adding book\_name (voilating not null constraint)

-- wrong way

insert into book(book\_name,author\_name,price,genre,available\_in)values("tejas k",250,'comedy','online,offline');

-- Error Code: 1136. Column count doesn't match value count at row 1

-- not adding book\_name (voilating not null constraint)

-- correct way

-- not passing value to column means not specifing column name neither passignits value

insert into book(author\_name,price,genre,available\_in)values("tejas k",250,'comedy','online,offline');

-- Error Code: 1364. Field 'book\_name' doesn't have a default value

-- IMPORTANT : if there is NOT NULL cnstraint on any column then either specify default value or pass value

-- not passing author\_name (checking working of default constraint)

insert into book(book\_name,price,genre,available\_in)values("java",350,'horror','online,offline');

select \* from book;

-- paasing value not in range of check constraint (voileting check constraint)

insert into book(book\_name,author\_name,price,genre,available\_in)values("python","tejas k",50,'horror','online,offline');

-- Error Code: 3819. Check constraint 'book\_chk\_1' is violated.

-- passing value not specified in enum (voileting enum constraint)

insert into book(book\_name,author\_name,price,genre,available\_in)values("python","tejas k",650,'adventure','online,offline');

-- Error Code: 1265. Data truncated for column 'genre' at row 1

-- passing value not specified in set (voileting set constraint)

insert into book(book\_name,author\_name,price,genre,available\_in)values("python","tejas k",650,'comedy','online,video');

-- Error Code: 1265. Data truncated for column 'available\_in' at row 1