MySQL Data Base for Train Ticket Booking System

Project Name: Train Ticket Booking System

Team Details:

1. Prachi Singh

2. Shailaja

3. Ibrahim

4. Saya Manish

5. Albin Jose

Project Introduction:

The MySQL train ticket booking system database is designed to manage and organize information related to train schedules, seat availability, user details, and booking records. This document provides an overview of the SQL commands required to set up and interact with the database.

Introduction to SQL:

Structured Query Language (SQL) is a standardized programming language used to manage relational databases and perform various operations data in them. Initially created in the 1970s, SQL is regularly used by database administrators and developers writing data integration scripts to set up and run analytical queries.

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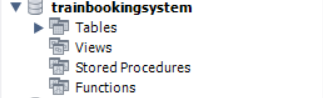
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**#TO CREATE A DATABASE**

CREATE DATABASE TrainBookingSystem;

**#TO USE A DATABASE**

USE TrainBookingSystem;



**#TO CREATE TABLE 1 TRAIN**

CREATE TABLE Train (

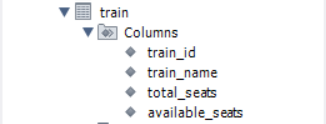
train\_id INT PRIMARY KEY,

train\_name VARCHAR(50),

total\_seats INT,

available\_seats INT

);



**#TO INSERT VALUES INTO THE TABLE TRAIN**

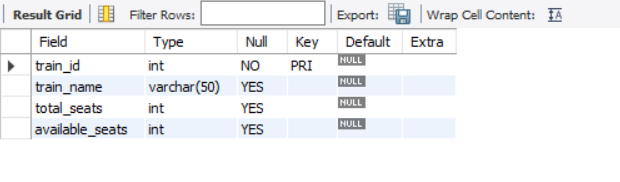
INSERT INTO Train VALUES(01, 'Train1', 20, 9),

(02, 'Train2', 30, 18),

(03, 'Train3', 40, 27);

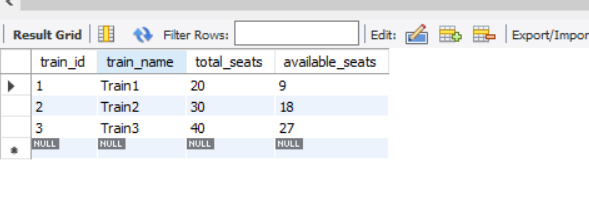
**#TO VIEW THE STRUCTURE OF THE TABLE TRAIN**

DESC TRAIN;



**#TO VIEW ALL THE DATA ENTERED INTO THE TABLE TRAIN**

SELECT \* FROM Train;



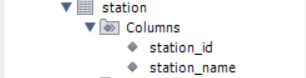
**#CREATE TABLE 2 STATION**

CREATE TABLE Station (

station\_id INT PRIMARY KEY,

station\_name VARCHAR(50)

);



**#****INSERTING VALUES IN TABLE 2 STATION**

INSERT INTO Station VALUES(100001, 'Station1'),

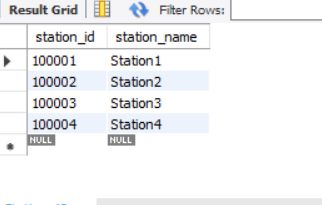
(100002, 'Station2'),

(100003, 'Station3'),

(100004, 'Station4');

**#****TO VIEW TABLE 2 STATION**

SELECT \* FROM Station;



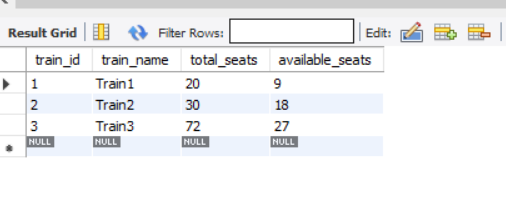
**#****TURN OFF SAFE MODE**

SET SQL\_SAFE\_UPDATES=0;

**#****TO UPDATE TOTAL SEATS IN TABLE 1 TRAIN**

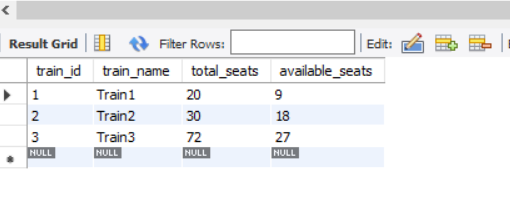
UPDATE train

SET TOTAL\_SEATS=72 WHERE TRAIN\_ID=3;

****

**#****TO VIEW TABLE 2 UPDATED PASSENGER\_DETAILS**

SELECT \* FROM TRAIN;



**#****TO CREATE TABLE 3 SCHEDULE**

CREATE TABLE Schedule (

schedule\_id INT PRIMARY KEY,

train\_id INT,

departure\_station\_id INT,

arrival\_station\_id INT,

departure\_time DATETIME,

arrival\_time DATETIME,

FOREIGN KEY (train\_id) REFERENCES Train(train\_id),

FOREIGN KEY (departure\_station\_id) REFERENCES Station(station\_id),

FOREIGN KEY (arrival\_station\_id) REFERENCES Station(station\_id)

);

**#****TO INSERT DETAILS IN TABLE 3 SCHEDULE**

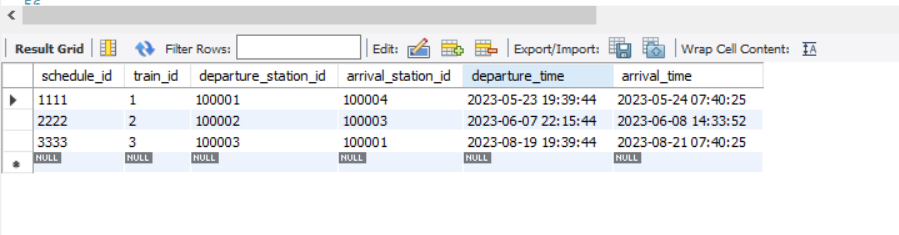
INSERT INTO Schedule VALUES(1111, 01, 100001, 100004,'2023-05-23 19:39:44', '2023-05-24 07:40:25'),

(2222, 02, 100002, 100003,'2023-06-07 22:15:44', '2023-06-08 14:33:52'),

(3333, 03, 100003, 100001,'2023-08-19 19:39:44', '2023-08-21 07:40:25');

**#****TO VIEW DETAILS OF TABLE 3 SCHEDULE**

SELECT \* FROM Schedule;



**#****CREATE TABLE 4 USER**

CREATE TABLE User (

user\_id INT PRIMARY KEY,

username VARCHAR(50),

email VARCHAR(100),

password VARCHAR(100)

);



**#****INSERT VALUES TO TABLE 4 USER**

INSERT INTO User VALUES(1000, 'Prachi', 'prachi@gmail.com', 'prachi123'),

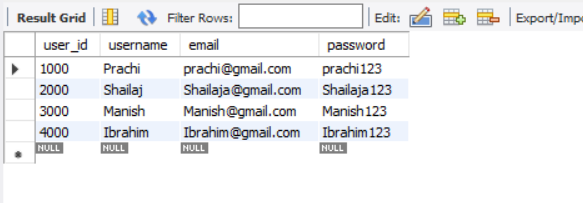
(2000, 'Shailaj', 'Shailaja@gmail.com', 'Shailaja123'),

(3000, 'Manish', 'Manish@gmail.com', 'Manish123'),

(4000, 'Ibrahim', 'Ibrahim@gmail.com', 'Ibrahim123');

**#****TO VIEW DETAILS OF TABLE 4 USER**

SELECT \* FROM user;



**#****CREATE TABLE 5 BOOKING**

CREATE TABLE Booking (

booking\_id INT PRIMARY KEY,

user\_id INT,

schedule\_id INT,

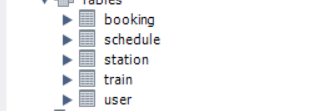
booking\_time DATETIME,

num\_of\_tickets INT,

FOREIGN KEY (user\_id) REFERENCES User(user\_id),

FOREIGN KEY (schedule\_id) REFERENCES Schedule(schedule\_id)

);



**#****INSERT VALUES TO TABLE 5 BOOKING**

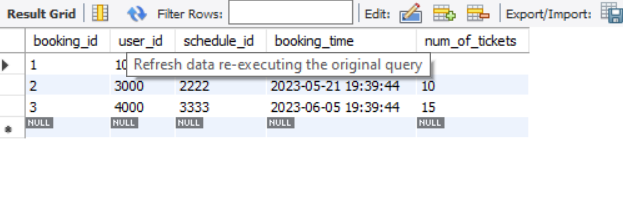
INSERT INTO Booking VALUES(1, 1000, 1111, '2023-05-30 19:39:44', 5),

(2, 3000, 2222, '2023-05-21 19:39:44', 10),

(3, 4000, 3333, '2023-06-05 19:39:44', 15);

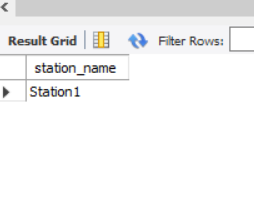
**#****VIEW DATA OF TABLE 5 BOOKINGS**

SELECT \* FROM Booking;



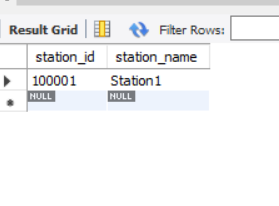
**#****VIEW SELECTED DATA FROM TABLE TRAIN USING WHERE KEYWORD**

SELECT station\_name FROM Station WHERE station\_id = 100001;



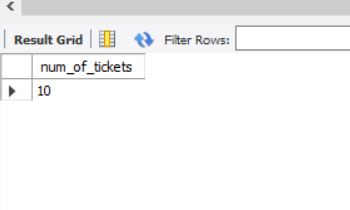
**#****VIEW SELECTED DATA FROM TABLE STATION USING WHERE KEYWORD**

SELECT \* FROM Station WHERE station\_id=100001;



**#****VIEW SELECTED DATA FROM TABLE BOOKING USING WHERE KEYWORD**

SELECT num\_of\_tickets FROM Booking WHERE booking\_id = 2;



**#****JOINING TABLES BOOKING, USER AND TRAIN USING JOIN WHICH DISPLAYS THE DATA AS BOOKING IS THE TABLE WHICH IS RELATED TO USER TABLE , TRAIN TABLE AND SCHEDULE TABLE WITH USER\_ID BEING PRIMARY KEY IN USER LINKED IN BOOKING TABLE USING FOREIGN KEY, SCHEDULE\_ID BEING PRIMARY KEY IN SCHEDULE AND LINKED TO BOOKING TABLE USING FOREIGN KEY AND TRAIN\_ID BEING A PRIMARY KEY IN TRAIN TABLE AND LINKED TO SCHEDULE USING FOREIGN KEY**

SELECT

User.username,

Train.train\_name,

Schedule.departure\_time,

Schedule.arrival\_time,

Booking.num\_of\_tickets,

Booking.booking\_time

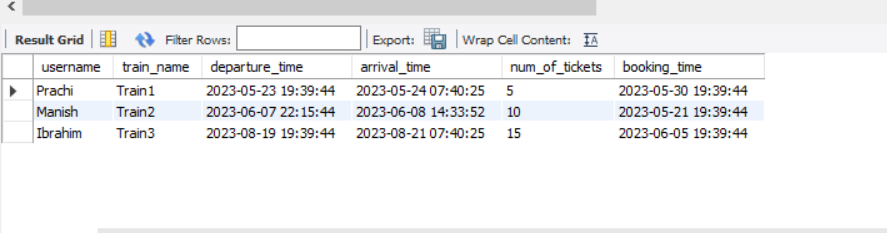
FROM Booking

JOIN User ON Booking.user\_id = User.user\_id

JOIN Schedule ON Booking.schedule\_id = Schedule.schedule\_id

JOIN Train ON Schedule.train\_id = Train.train\_id;

**#IT SHOWSUSER\_NAME FROM USER, TRAIN\_NAME FROM TRAIN TABLE, DEPARTURE\_TIME FROM SCHEDULE TABLE, ARRIVAL\_TIME FROM SCHEDULE TABLE, NUM\_OF\_TICKETS FROM BOOKING TABLE AND BOOKING\_TIME FROM BOOKING TABLE**



**#****JOINING TWO TABLES TRAIN AND SCHEDULE USING JOIN WHICH DISPLAYS THE DATA USING WHERE KEYWORD. TRAIN\_NAME IS THE PRIMARY KEY IN TRAIN TABLE WHICH IS ALSO LINKED TO SCHEDULE TABLE USING FOREIGN KEY**

SELECT

Train.train\_name,

Schedule.departure\_time,

Schedule.arrival\_time

FROM Train

JOIN Schedule ON Train.train\_id = Schedule.train\_id

WHERE Schedule.departure\_time = '2023-05-23 19:39:44' AND Schedule.arrival\_time = '2023-05-24 07:40:25';

**#IT SHOWS TRAIN\_NAME FROM TRAIN TABLE, DEPARTURE\_TIME FROM SCHEDULE TABLE, ARRIVAL\_TIME FROM SCHEDULE TABLE**

