CASE STUDY in SQL WORKBENCH:

CODE:

-- Create Database

CREATE DATABASE casestudy;

-- Use the Database

USE casestudy;

-- Create Train Table

CREATE TABLE Train (

Train\_ID INT PRIMARY KEY,

Train\_Name VARCHAR(100),

Departure\_Station VARCHAR(100),

Arrival\_Station VARCHAR(100),

Departure\_Time TIME,

Arrival\_Time TIME,

Total\_Seats INT,

Available\_Seats INT

);

-- Insert data into Train Table

INSERT INTO Train (Train\_ID, Train\_Name, Departure\_Station, Arrival\_Station, Departure\_Time, Arrival\_Time, Total\_Seats, Available\_Seats)

VALUES

(1, 'Express 101', 'Guntur', 'Chennai', '08:00:00', '10:40:00', 200, 180),

(2, 'Express 101', 'Guntur', 'Chennai', '08:00:00', '10:40:00', 200, 180),

(3, 'Express 101', 'Guntur', 'Chennai', '08:00:00', '10:40:00', 200, 180);

select \* from Train;

-- Create Passenger Table

CREATE TABLE Passenger (

Passenger\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Contact\_Number VARCHAR(20),

Address TEXT

);

-- Insert data into Passenger Table

INSERT INTO Passenger (Passenger\_ID, Name, Contact\_Number, Address)

VALUES

(1, 'Akhil', '8179421105', '123 Neerukonda, Guntur, AP'),

(2, 'Arun', '7654799332', '456 kuragallu, Guntur, AP'),

(3, 'Ameen', '8273645980', '789 nidamaru, Guntur, AP');

select \* from Passenger;

-- Create Reservation Table

CREATE TABLE Reservation (

Reservation\_ID INT PRIMARY KEY,

Passenger\_ID INT,

Train\_ID INT,

Seat\_Number INT,

Date DATE,

FOREIGN KEY (Passenger\_ID) REFERENCES Passenger(Passenger\_ID),

FOREIGN KEY (Train\_ID) REFERENCES Train(Train\_ID)

);

-- Insert data into Reservation Table

INSERT INTO Reservation (Reservation\_ID, Passenger\_ID, Train\_ID, Seat\_Number, Date)

VALUES

(1, 1, 1, 5, '2023-10-27'),

(2, 2, 2, 6, '2023-10-27'),

(3, 3, 3, 7, '2023-10-27');

select \* from Reservation;

-- Create Ticket Table

CREATE TABLE Ticket (

Ticket\_ID INT PRIMARY KEY,

Reservation\_ID INT,

Fare DECIMAL(10, 2),

Payment\_Status VARCHAR(20),

FOREIGN KEY (Reservation\_ID) REFERENCES Reservation(Reservation\_ID)

);

-- Insert data into Ticket Table

INSERT INTO Ticket (Ticket\_ID, Reservation\_ID, Fare, Payment\_Status)

VALUES

(1, 1, 100.00, 'Paid'),

(2, 2, 100.00, 'Paid'),

(3, 3, 100.00, 'Paid');

select\* from Ticket;

-- Create Station Table

CREATE TABLE Station (

Station\_ID INT PRIMARY KEY,

Station\_Name VARCHAR(100),

Location VARCHAR(100)

);

-- Insert data into Station Table

INSERT INTO Station (Station\_ID, Station\_Name, Location)

VALUES

(1, 'Guntur', 'Mangalagiri, AP'),

(2, 'Guntur', 'Mangalagiri, AP'),

(3, 'Guntur', 'Mangalagiri, AP');

select \* from Station;

-- Create Employee Table

CREATE TABLE Employee (

Employee\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Position VARCHAR(100),

Contact\_Number VARCHAR(20)

);

-- Insert data into Employee Table

INSERT INTO Employee (Employee\_ID, Name, Position, Contact\_Number)

VALUES

(1, 'Abhinav', 'Conductor', '9875436210'),

(2, 'Lohith', 'Ticket Agent', '1234567899'),

(3, 'Venky', 'Engineer', '8764538290');

select \* from Employee;

Output:

A screenshot of a computer

Description automatically generated

Table – 01:

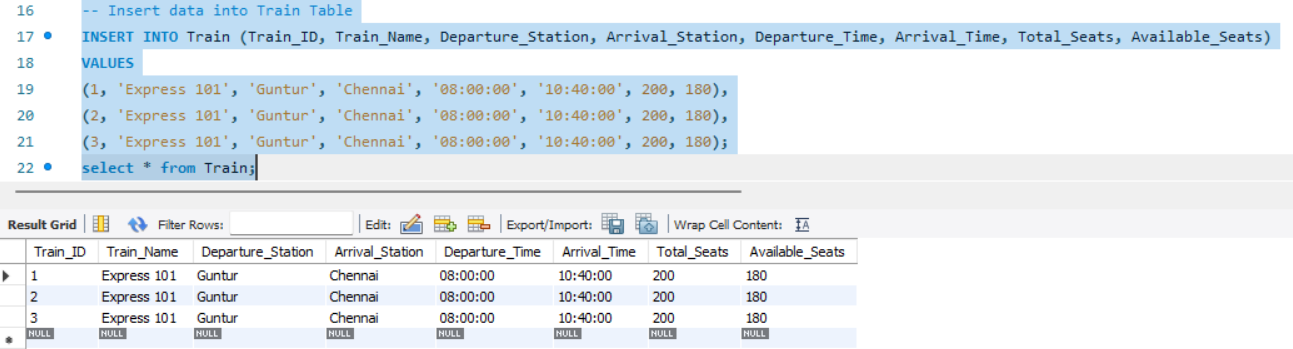


Table – 02:

A screenshot of a computer

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Table – 03:

A screenshot of a computer

Description automatically generated

Table – 04:

A screenshot of a computer

Description automatically generated

Table – 05:

A screenshot of a computer

Description automatically generated

Table – 06:

A screenshot of a computer

Description automatically generated

E-R Diagram from SQL Benchmark:

A computer screen shot of a computer

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