Program Project

Program Identification

Program ID: T5

Program Title: Introduction to AI, Data Analytics & SQL

Program Information:

Project Title:	Railway System Database Management System

Description

The railway management system project can help make the process of planning trips, booking tickets, reservations and last-minute cancellations more convenient. The system will streamline the process for users, which will also help retain them as users. Create a database he dataset for this project will contain essential details, such as:
a) Train information like (Train number, speed, ...etc
b) Station information like (Station code, Station name, ...etc)
c) Schedule information like (Trip code, departure city, arrival city, Departure time, Distance, Price ...etc)
d) Traveler information like (Name, phone number, age, ...etc)
e) Ticket information like (Date, trip number, client number, ...etc)

The idea of this project is for users to develop the database for them to perform the following tasks:
a) Book their tickets or cancel booked tickets.
b) Check their fares before booking tickets and checking their booked tickets.
c) Check the schedule for available trains.

d) Book a ticket: Users can book their tickets.
e) Show bookings: Users can check their booked tickets.
f) Show available train schedules: Users can view the available train schedules.
Etc.
Tasks:

1. Retrieve all train information including train number, speed, and other relevant details.
2. List all stations along with their station code and name.
3. Display the schedule for a specific trip, including departure city, arrival city, departure time, distance, and price.
4. Show traveler information such as name, phone number, and age.
5. Retrieve ticket information for a given date, including trip number and client number.
6. List all booked tickets for a specific client.
7. Display the available train schedules for a given date.
8. Show the total number of available seats for each trip.
9. List all trips with their corresponding departure and arrival cities.
10. Display the total revenue generated from ticket sales for a specific date range.
11. Show the average speed of all trains.
12. Retrieve the most popular departure and arrival cities based on the number of trips.
13. List all trips sorted by departure time.
14. Display the total distance traveled by each train.
15. Show the total number of tickets booked for each trip.

Project Outcomes

By the end of this **project** students will deliver:

A. SQL code for project solution
B. Presentation for the project