RAILWAY RESERVATION SYSTEM

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Abstract

This database project aims to allow the passenger to *reserve tickets* by degree, to know the nearest time available for a train to travel to their destination, and *how much* they will pay for the tickets.

It also allows the railway authority to keep tracking the *maintenance* schedules of the train

Abstract

Railway authority has working *stations*, each station receives *trains* that arrives and leaves according to their schedule on a daily basis, these trains are being used by *passengers* or travelers who travels from the station to another station in some other city, their reservation is confirmed by *tickets* after paying the price

Abstract

Every train has *maintenance* schedules that are required to keep the train working and most importantly to keep working safely without any faliure that could make the passengers' trip, not a safe one, each train is being maintained by its manufacturer when needed and we need to Store that in our system.

Requirements

1) The authority wants to keep the data for each working *employee* in order to review their decisions later.

The specific data that they want to store about each employee are the unique ID, the position, the salary, the full name, gender of the employee, age, the working hours everyday and his unique SSN.

Requirements

2) The authority wants to keep the data for each *passenger*, The specific data that they want to store about each passenger are the unique ID, full name, age, the unique SSN, mobile number, the reserved tickets by him, the seat number or the seats numbers if he reserved more than one ticket, the reserved class and his mobile number.

Requirements

3) The authority wants to keep the data for each *train*, The specific data that they want to store are a unique train ID, train type, the source of the train, the destination of the train, the planned arrival time, the actual arrival time, the planned departure time, the actual departure time, the number of seats of the train, number of available seats and number of reserved seats already.

Requirements

4) The authority wants to keep the data for each *ticket to be* available for the *passengers* in order to be displayed on their tickets, The specific data that they want to display are a unique ticket ID, reserved class, arrival time of the train, the train unique ID, the name of the passenger, the ticket price, the unique seat number and finally the reserved class.

Requirements

5) The authority wants to keep the data for the pursuance of *maintenance*, The specific data that they want to store about each maintenance are the date of the regular maintenance, the cost of the regular maintenance, also they want to know the date and cost of the irregular maintenance and of course the trains connected to that process to know the available trains in service.

Requirements

6) The authority wants to keep the data for each *Route*, The specific data that they want to store about each Route are the unique ID, the unique name of the source station, name of the destination station the location of the stations and the trains that arrives and leaves the stations.

Finally

passengers

[passenger_id, first_name , last_name, birthdate, age, mobile, gender, SSN, tickets_reserved, reservation_status]

employee

[employee_id, first_name , last_name, birthdate, age, gender, duration_time, job_title]

train

[train_id, train_type, source, destination, planned_arrival, actual_arrival, mid_stations, manufacturer]

ticket

[ticket_id, class, seat_number, price]

maintenance

[maintenance_id, entrance_date , exit_date, company, cost, trains]

Class

[class_id, class_name, cost]

Route

[route_id, source_station, destination_station]

Schedule

[schedule_id, planned_arrival, planned_departure, arrival_time, departure_time]