CSE 3330 – Project #1 – ER Diagram

1. Which tools you used for the project. (Readme file)?

We've provided a Readme file with the tools that we used is README.md.

Part 1: ER Diagram

1. Construct a clean and concise ER diagram for the RRS database. List your assumptions and clearly indicate the cardinality mappings.

Diagram

Description automatically generated

Assumptions:

As the system is very huge and is not viable to construct therefore there are some assumptions that are made which may be viewed from the above E-R diagram.

* Only two categories of tickets are sold premium and general ticket.
* Each category can have maximum number of tickets booked is 10.
* The total number of tickets that can be booked for a train is 20.
* Can have only 2 tickets in waiting.
* Total number of trains are 5.
* Any stops made by a train before its destination and their bookings are not considered.

Description:

* Passenger must provide personal information such as his first and last names, date of birth, address, and social security number (SSN) to book a train ticket.
* Bookings differ depending on the booking date, availability, and pricing based on the seat price.
* Aside from that, booking varies each trip, based on the location and length of the journey.
* Passengers can book train tickets based on availability, which is determined by the train number and the dates for which the ticket is purchased.
* Following this, the number of available seats is checked based on the class; if available, the passenger is given a booking number, which confirms his ticket.
* If there is no availability, the passenger will be placed on a waiting list; if the waitlist exceeds 2, the booking will be cancelled, and the passenger will be notified that the train for that date is full.

1. Source code of SQL CREATE statements, or screen shots of how you created the tables via one of the tools.

We've provided a text file with the source code for the tables that we can review.

SOURCE CODE – RRS\_DATABASE.txt

1. Explain which method you used to load the data into the tables ?

To load the data into the tables we used the below commands –

As we had the data stored in the .csv files we begin with

* .mode csv
* .import Train.csv TRAIN
* .import Train\_status.csv TRAIN\_STATUS
* .import Passenger-1.csv PASSENGER
* .import Booked-1.csv BOOKED

This way we were able to load the data into the tables which we created in (3).

To check if the import was successful, we checked it through the command

* .tables which would print the tables inside our project. db.

1. Source code of SQL SELECT statements for each query executed, showing the query result; OR screen shots of your simple Web interface that was used to execute the queries and show the query results.

We've provided a text file with the source code for the queries for each question that we can review.

Queries - Query.txt

1. Contribution List –

For the E-R Diagram we contributed equally and for the SQL Queries Abdullah – 4 Queries, Mohammed – 3 Queries, Obada – 3 Queries.

Project built by

* Abdulla Sakallah - 1001846204
* Obada Hamdan - 1001764392
* Mohammed Ahmed Zakiuddin - 1001675091