

PROJECT TITLE

RAILWAY TRACKING AND ARRIVAL TIME PREDICTION SYSTEM

Submitted in partial fulfilment of the requirement of

PG Diploma in Advanced Computing

By

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ABSTRACT:

The railway track management system is an application that supports the railway track system services as per train schedules. The project is designed with a good GUI that allows monitoring and controlling various trains on the network. It has happened so many times that you have been waiting on railway station for someone to arrive and you don't have any exact information about train timing and other stuff. The track management system operates on train schedules and lays appropriate tracks for trains to pass as per their decided route. The Train management software has been designed to support and maintain data for multiple trains on the rail network. The train schedules and routes are maintained in a database. Whenever the train passes on a track the further track cross or joins are managed accordingly as per the train route. Once the train passes the track is then configured for the next scheduled train to pass.

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INTRODUCTION:

It has happened so many times that you have been waiting on railway station for someone to arrive and you don't have any exact information about train timing and other stuff. So here we present to you a project on Railway Tracking and Arrival Time Prediction. Using this system user's can get the information about train timing, and is it on time or not, and other information. In this, system will track the train timing at what time train departed from a particular station and pass these timing details to other station's system where it will display the timing according to train departed from previous station. If system will find any delay in train due to signal it will automatically update the train timing in next station and will be displayed to viewers.

In this system there is an admin module, who enters the detail about trains and its timing and these details will be passed through internet server and is fetched by the system on other stations, and there is other system that shows train information to the viewers on platform. Second system will get all the information of all trains but will automatically select the data that refers to particular station and shows that information on screen. For example if an admin at Mumbai station enter information about Delhi station Chennai station system will not be effected, but Delhi Station system will show the information about train. This system works like – when train is departed late from a station, admin will enter details about departure and its time, and this information goes in real time on internet server and retrieved on other system through internet server and shows the details on screen. Station masters on every station have a login wherein they may update train arrival time at their station when it arrives. This second System is installed on various locations on station for viewers to view the information. Admin will add information like train departed from station, expected arrival at destination, delay in the train schedule, etc. This project publishes real-time train schedule events to subscribing multiple client applications.

Advantages

- This system help commuter to know about train delays and timing.
- System will provide accurate details about the train.

Disadvantages

- If the train details entered by the admin is wrong so the system in next station will show wrong information
- If there is any network failure the whole system will not work properly

Analysis Modelling

2.1 Use Case Diagram:

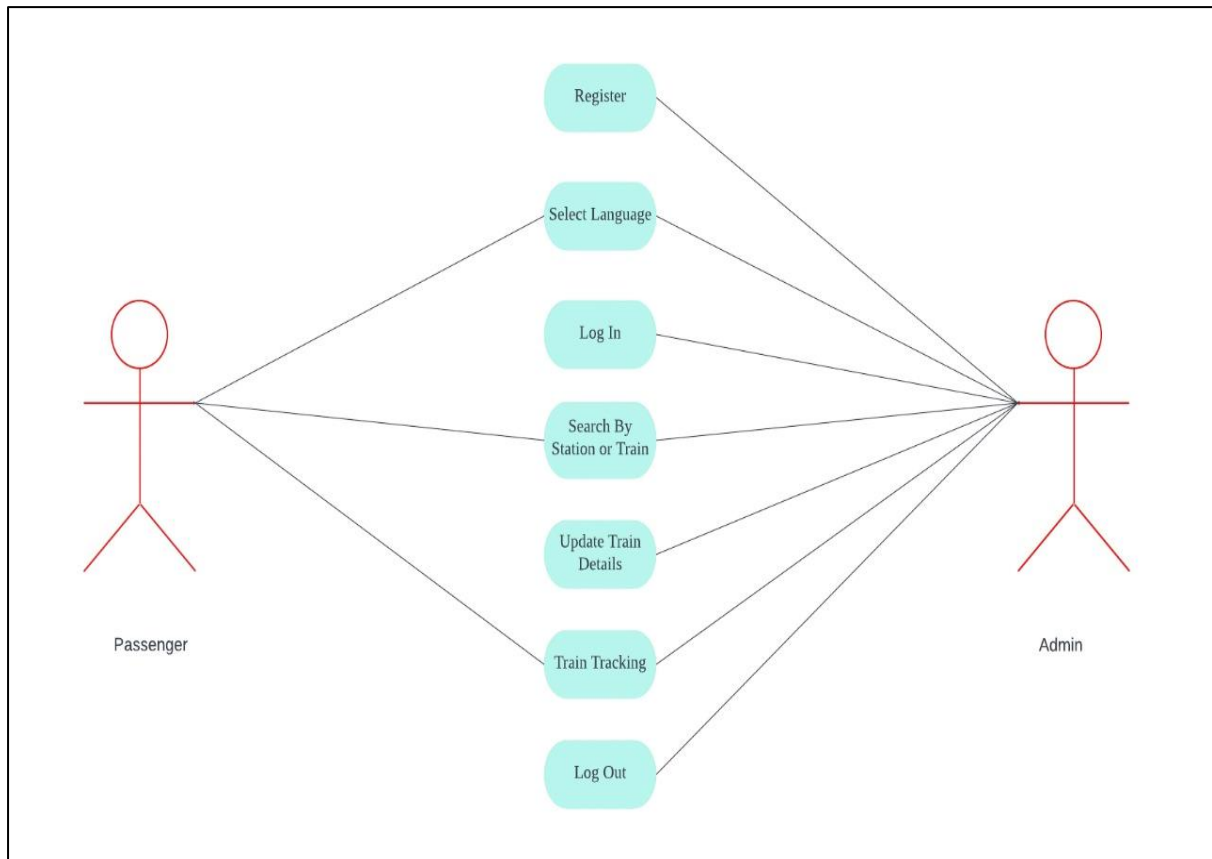


Fig 1. Use Case Diagram

2.2 Class Diagram:

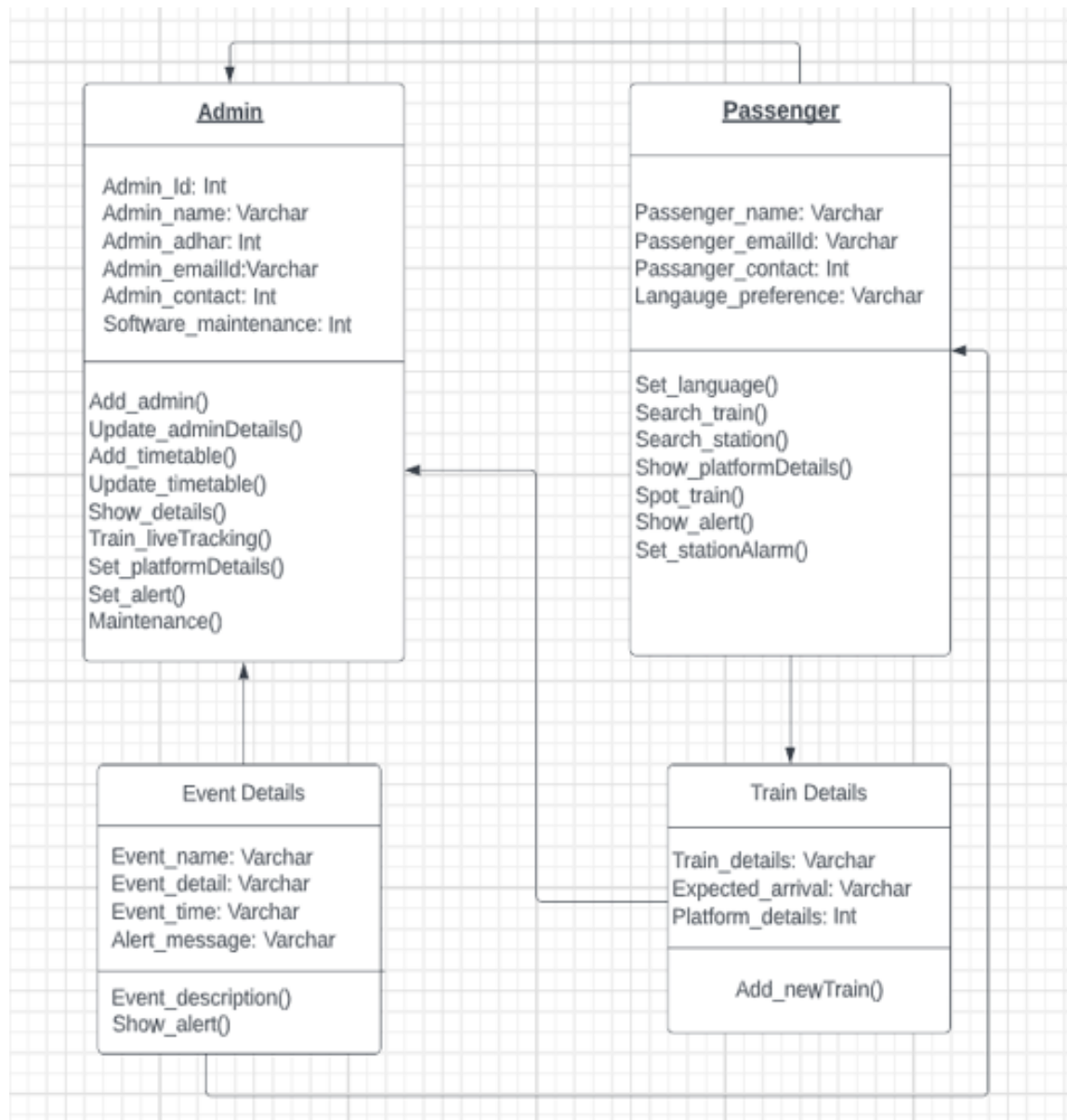


Fig 2. Class Diagram

2.3 Activity Diagram:

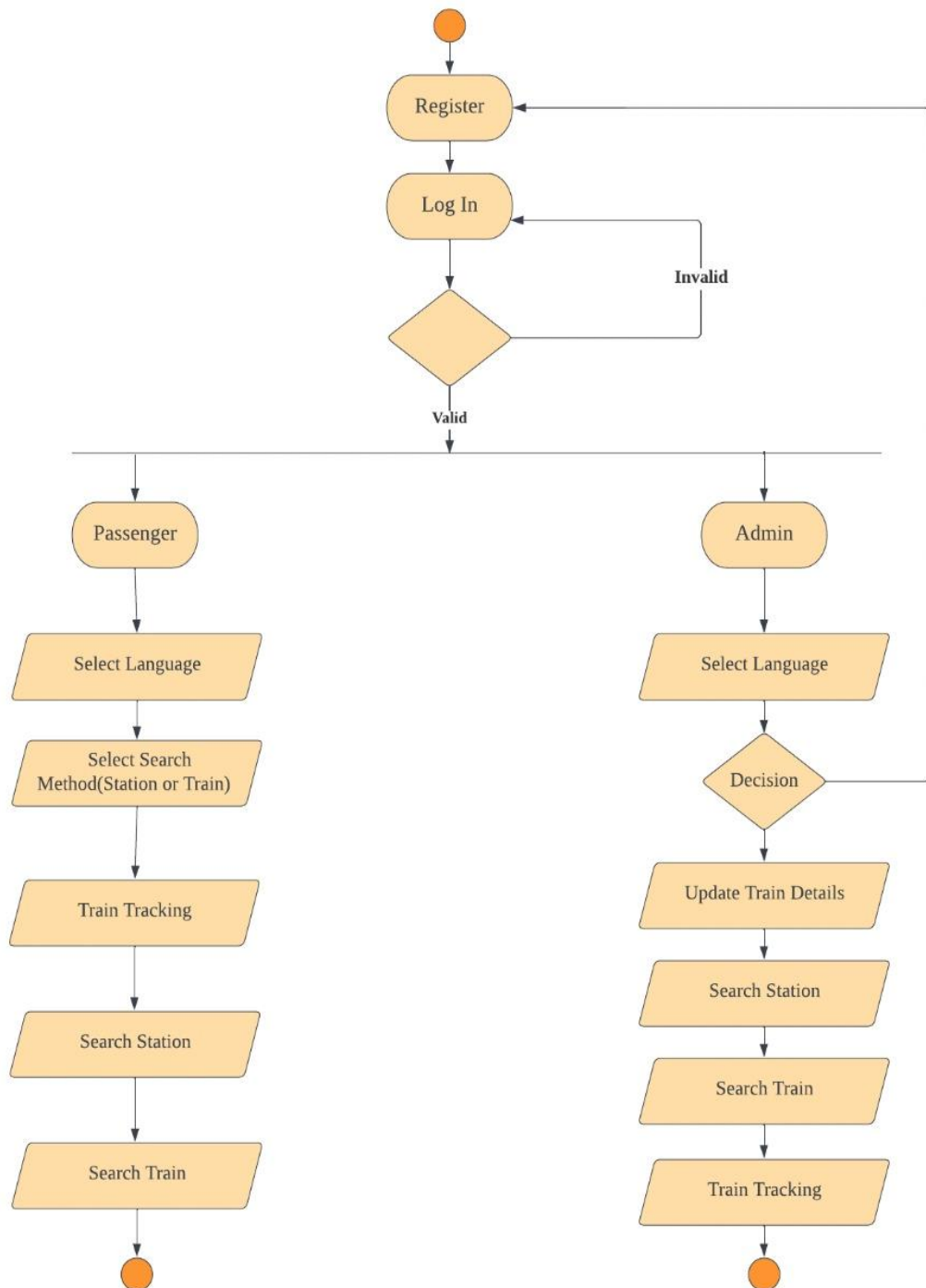


Fig.3 Activity Diagram

2.4 Sequence Diagram:

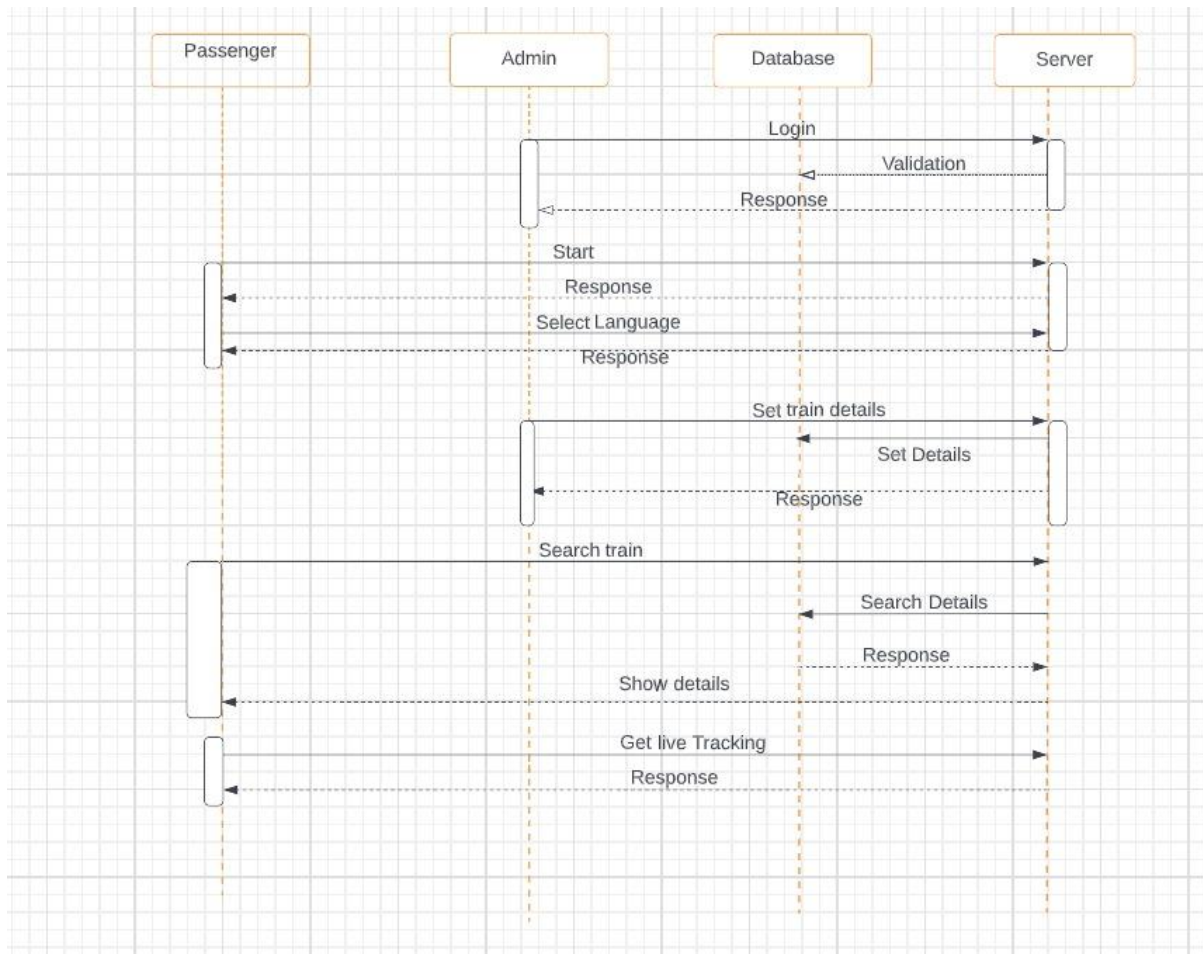


Fig.4 Sequence Diagram

DESIGN

3.1 E-R Diagram:

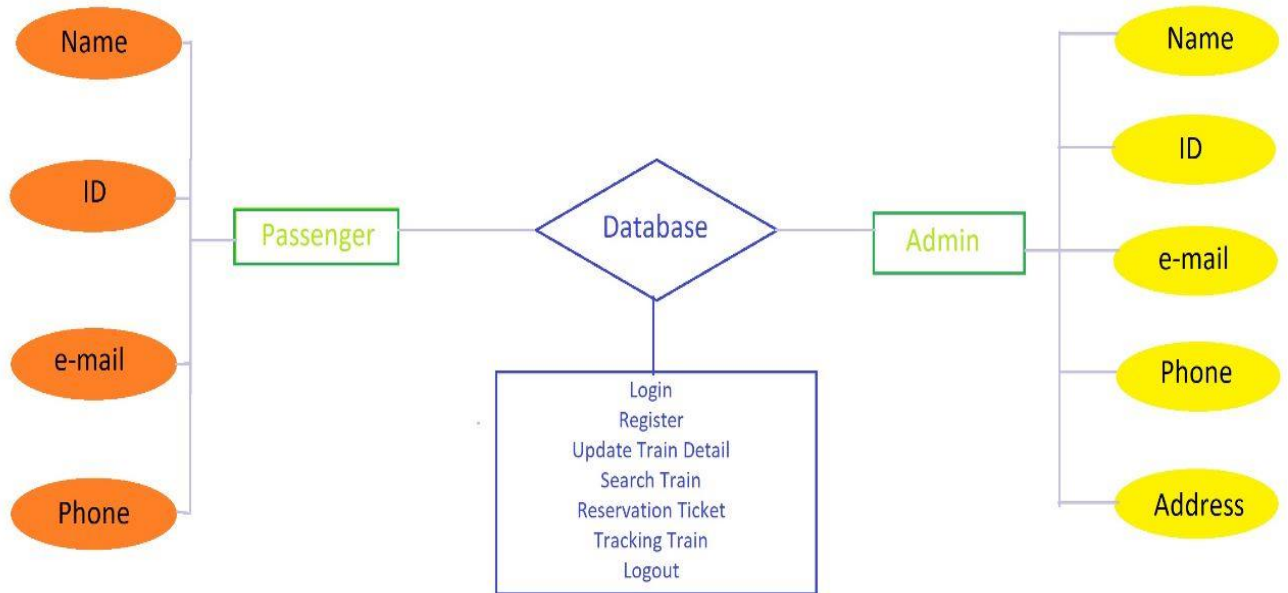


Fig.5 E-R Diagram