Dhirubhai Ambani Institute of Information and Communication Technology

(DA-IICT)

A Project Documentation

On

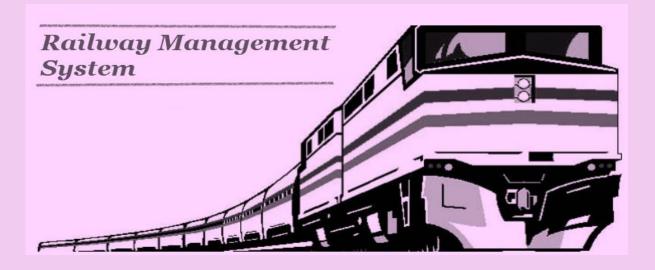"RAILWAY MANAGENENT SYSTEM"

For the Course

Data Structure Lab (IT-206)

SUBMITTED BY

Jaimin Satani (202001202)

&

Virat Chaudhari (202001240)

Problem statement :

Design railway management system which can,

1. Manage Train Details

2. Provide the Platform to Book the Ticket

3. Manage Customer Details

Approach to the Problem :

Approaching to this problem we thought about 3 – key points given below,

1. Customer Management

2. Authority Rights to Administrator

3. Train Details Management

Customer Management :-

For booking of ticket we needed the customer details after receiving their details there was a need to store that details so we decided to store that details in .csv format.

> First of all to take customer details we made a class which has following attributes,

☞ Add new customer :

- For new customer add his/her details to .csv file.

- After storing his/her details give him/her system generated ID and ask for password for privacy

☞ Update customer details :

- If customer wants to update his/her details he/she can access details with ID and password.

- He/she can update all details except his/her ID.

- The new updated information will be stored in .csv file

- For storing the updated information we made the NewcustomerDetains.csv file then we removed old details file and renamed the NewcustomerDetains.csv file to the old name.

☞ Display customer details and ticket :

- For displaying customer details first system will ask for ID and password

- After that it will show the customer details and print the ticket.

☞ Delete the customer account :

- If customer wants to cancel his/her ticket and delete his/her details the system provides the functionality to do it.

- For deleting the information we made the NewcustomerDetains.csv file then we removed old file and renamed the NewcustomerDetains.csv file to the old name.

Authority Rights to Administrator :

- ➢ For management of trains we have designed a class called administrator which has following functionality,

  - ☞ Add new Train:

    Administrator can add new train and all its details

  - ☞ Update train details:

    Administrator can update details of any train

  - ☞ Display train details:

    Administrator can print details of any train

  - ☞ Cancel train:

    Administrator have authority to cancel the train

- ➢ To access all above functions administrator must have administrative password.

Train Details Management :

- ☞ Administrator have the authority for managing all the train details.

- ☞ As above mentioned functions administrator can use all those functions for management of train details.

What we have learnt? :

- We have learnt many new things from this project.

- First thing that we have learnt is file input, output of .csv file in c++.

- We came to know about getline() and stoi() functions, we learnt how we can use these functions to read data from csv file.

- We learnt about STL called vector.

- We discovered classes like fstream , stringstream .

- We learnt about EOF function which is used for indication of end of file.

Limitations of Project :

- In our project there is no option for changing administrator password.

- There is no option of date in our project.

- We can't reuse customer ID which is once used.

- <u>E.X.</u> after cancellation of ticket of ID 1001 we can't use it for another customer.

- We can't reuse Train ID also.

–––––Thank You–––––