VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-560014

File Structure

Mini Project Report

On

"RAILWAY MANAGEMENT SYSTEM"

Submitted in partial fulfillment of the requirement of VI semester File Structures Laboratory

Submitted by,

MOHIT RAJ	**1DT18IS077**
PRIYANSHU SINGH	**1DT18IS101**

Under the guidance of

Mrs. NEHA J
Asst. Professor
Dept. of ISE
DSATM, Bangalore.

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT
(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
(All B.E Courses Accredited by NBA, New Delhi)
Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082

2020-21

DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
(All B.E Courses Accredited by NBA, New Delhi)
Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Certificate

This is to certify that the mini-project work entitled **"RAILWAY MANAGEMENT SYSTEM"** is carried out by **MOHIT RAJ(1DT18IS077) and PRIYANSHU SINGH (1DT18IS101)** in partial fulfillment for the requirement of VI semester File Structure Laboratory in **Information Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2020-2021. It is certified that all the corrections/ suggestions indicated for the given internal assessment have been incorporated in the report. This report has been approved as it satisfies the academic requirements with respect to the mini-project work.

Signature of the Guide

Mrs. NEHA J
Asst. Professor,
Dept. of ISE DSATM,
Bangalore.

Signature of the HOD

Dr. Sumithra Devi K A
Dean Academics, Professor & Head
Dept. of ISE
DSATM, Bangalore.

External Viva

Name of the Examiners **Signature with date**

1.

2.

ACKNOWLEDGEMENT

I/We express my/our profound gratitude to **Dr.Ravishankar M, Principal, DSATM, Bangalore,** for providing the necessary facilities and an ambient environment to work.

I/We am grateful to **Dr. Sumithra Devi K A, Dean Academics, Professor & Head, Department of Information Science and Engineering, DSATM, Bangalore,** for her valuable suggestions and advice throughout my/our work period.

I would like to express my deepest gratitude and sincere thanks to our guide **Mrs. Neha J, Assistant Professor, Department of Information Science and Engineering, DSATM, Bangalore,** for her keen interest and encouragement in the project whose guidance made the project into reality.

I/We would like to thank all the staff members of **Department of Information Science and Engineering** for their support and encouragement during the course of this project.

Definitely most, I/We would like to thank my/our parents, all my family members and friends, without whose help and encouragement this project would have been impossible.

ABSTRACT

In the Railway reservation system, we have tried to develop a platform to make the reservation system more efficient, easier and fast. It explains the systematic procedure of railway reservation in India. This project is developed using the C language. Which the best and the most used language in the Procedure oriented programing languages. Various functions and structures are used to make a best use of this language.

Railway reservation system enables us to do the train reservation and other things there is necessity to fill a form at the railway reservation counter, that is the user can directly select from the choices provided with train numbers, origin, date of travel, departure time, destination, arrival time at that station, the class of travel, insurance etc. The program gives user the final output as train ticket with the amount to be paid. Finally, it's the user who has to decide whether to book the ticket or not.

The railway reservation system is used for booking the ticket, searching for the trains, checking the availability of the seats, for doing the tatkal reservation and for the cancellation of the ticket. The most important facility provided in this system is of the insurance policy, that is the passenger will get the financial support if any accident of train or other thing happened during the travel.

This railway reservation system is beneficial to all the user who have to book the ticket online instead of standing in the long queues at the reservation counter. This system can also be used by the Railway reservation authorities for doing the reservations.

TABLE OF CONTENTS

CHAPTER 1
INTRODUCTION

A Software Requirements Specifications(SRS)is a complete set of information about the system on which the developed project will be running. It includes all the hardware as well as the software requirement. The minimum system requirement as well as the recommended system requirement for running the software are also mentioned in detail separately. The aim of this document is to gather and analyze and give an in-depth insight of the complete software requirement of the Railway reservation System.

The purpose of this source is to describe the railway reservation system which provides the platform for the customer to do the reservation of the seats in the railways. It also provides the passenger with the facility of the cancellation of the reservation, train timing details, check the seat availability, tatkal reservation, insurance and train availability.

Railways Reservation System" is an attempt to simulate the basic concepts of an online reservation system. This project is dedicated to model existing railway reservation systems that aim at development of Railway Reservation System that facilitates the railway customer to manage their reservations and the railway administrator to modify the backend database in a user-friendly manner.

CHAPTER 2

REQUIREMENTS ANALYSIS

The requirement analysis specifies the requirements needed to develop a graphic project. In this phase, we collect the requirements needed for designing the project. The requirements collected are then analyzed and carried to the next phase.

2.1 SOFTWARE REQUIREMENTS:

1. Operating System: Windows 7 or above,all Linux operating System
2. Programming Language: C
3. Front-end Development: .exe
4. Back-end Development: File Structure using C

2.2 HARDWARE REQUIREMENTS

1. Processor – Pentium IV or above
2. RAM – 2 GB or more
3. Hard disk – 80 GB or more

CHAPTER 3

DESIGN

USE CASE DIAGRAM

The below UML diagram depicts that the Admin can have a access to all the operations of a Railway Management System .

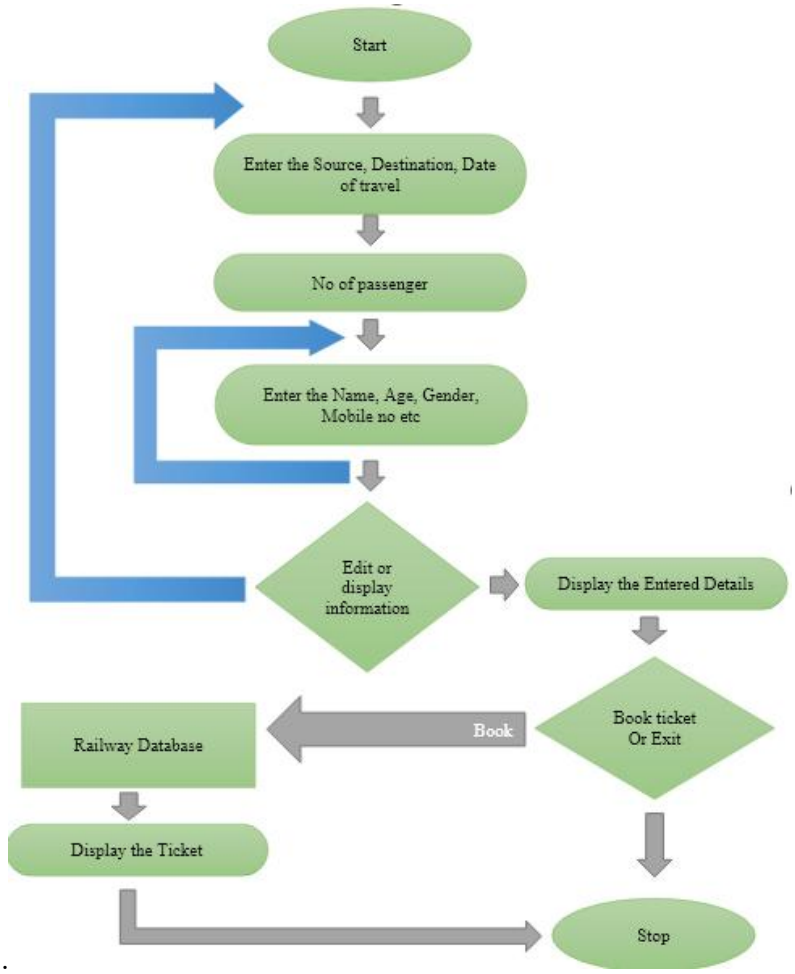


Figure 2: Use case diagram of Railway Management System

A use case diagram is a dynamic or behavior diagram in UML. Use case diagrams model the functionality of a system using actors and use cases. Use cases are a set of actions, services, and functions that the system needs to perform.

CHAPTER 4

IMPLEMENTATION

4.1 Variables used

In this Railway reservation system program, the variables used are as follows:

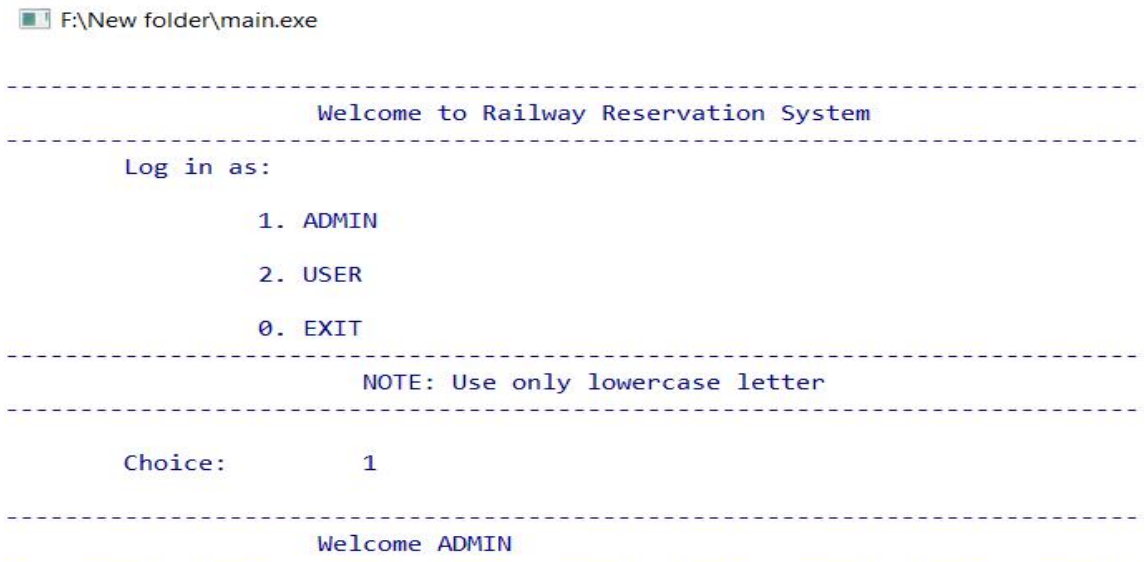
1. For Ticket Booking
- Source: It is the place from which the passenger wants to travel.
- Destination: the place to which the passenger wants to reach.
- Date of the Journey: On which the day the passenger wants to travel in train.
- No. of passengers(adult/child): total number of passengers including the adults and children's.
- Name of each passenger
- Age of each passenger
- Gender(M/F)
- Mobile no:
- E-mail:
- Class (Sleeper/AC 2 tier/ AC 3 Tier)
- ID type (Aadhar Card / Pan card no. / Voting card no.

2. Railway Database
- tno: Train Number
- tna: Train Name
- ttt: Total train Duration
- src: Source of Travel
- dest: Destination of Travel
- arr: Arrival Time
- dept: Departure Time
- km: Kilometers

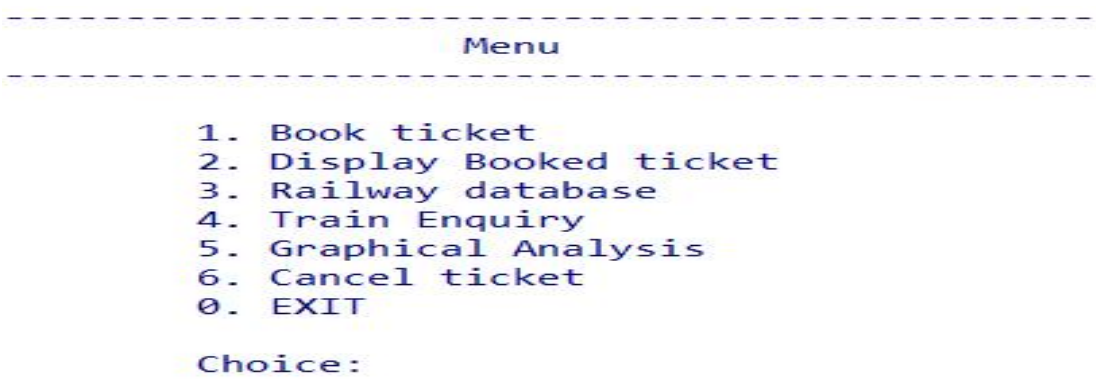
3. Backup of Data
- Import: Import the Data form the backup file
- Export: Export the Data into the file
- After accepting all the details at the end, the system will calculate the total fare based on the no. of km of distance and then it will show the total fare and will further go for the Payment of the money if the user chooses the Book option.
- It will also give the option of to cancel the already booked ticket.

CHAPTER 5

SNAPSHOTS



Snapshot 1: "Home Page"



Snapshot 2: "Admin Page"

```
--------------------------------------------------------------------------------
                    Ticket Booking
--------------------------------------------------------------------------------

      Source:         pune

      Destination:            mumbai

      Enter the Date of travel(dd/mm/yyyy):          20/02/2018
```

Snapshot 3: "Ticket Booking"

```
--------------------------------------------------------------------------------

        Total Number of passenger:              2

        Adult:  1

        Child:  1

--------------------------------------------------------------------------------
                             ADULT Details
--------------------------------------------------------------------------------

        Enter the Passenger Name:       Abhijit

        Age:            19

        Gender(M/F):            m

        Mobile No:              8446755972

        Email id:               abhijit.jadhav@gmail.com

        Identification no
(Aadhar no./PAN no./Voting card no.):           1234567890

        Class of travel
 (Sleeper=SL     AC 2 Tier=2AC  AC 3 Tier=3AC)  :              SL

--------------------------------------------------------------------------------
                             CHILD Details
--------------------------------------------------------------------------------

        Child Name:     Harshal

        Age:            19

        Gender(M/F):            m

        Identification no (Aadhar no.):         122323123213

        Class of travel
        (Sleeper=SL      AC 2 Tier=2AC  AC 3 Tier=3AC)  :       SL
```

Snapshot 4: "Ticket Booking"

```
        Source:         pune
        Destination:            mumbai
-------------------------------------------------------------------------------------------------------------------
Train No || Source || Destination || Train name || Distance(KM) || Arr. time(Hrs) || Dept. time(Hrs) || Duration||
-------------------------------------------------------------------------------------------------------------------

1025     pune    mumbai          pun-mum                 106.00          10.05                   23.45           8
5891     pune    mumbai          pune-mumbai             356.00          14.05                   21.45           49
6485     pune    mumbai          express                 253.00          6.05                    7.45            14
-------------------------------------------------------------------------------------------------------------------

Select the train No:1025

Enter the No of KM:106

        Adult:          1
        child:          1
        Child fare:1060
        Adult fare:2120
        Temporary fare:3180
-------------------------------------------------------------------------

        Want to take insurance(y/n)
         Rs 1/Km for child
         Rs 2/Km for adult: y

        Total fare:5300
-------------------------------------------------------------------------
        1. Pay Now              2. Cancel & EXIT

-------------------------------------------------------------------------
        Choice:1
```

Snapshot 4: “Ticket Booking”

```
-----------------------------------------------------------
                        MENU
-----------------------------------------------------------

        1. Add trains
        2. Insert train at specific location
        3. Sort the trains
        4. Delete the trains
        5. Search the trains
        6. Modify the trains
        7. Display the trains
        8. Database backup
        0. EXIT

-----------------------------------------------------------
Choice:
```

Snapshot 5: “Railway Database Model”

CONCLUSION AND FUTURE ENHANCEMENTS

After we have completed the project we are sure the problems in the existing system world overcome. The “Food Billing ” process made computerized to reduce human errors & to increase the efficiency.

The main focus of this project is to less human efforts. The maintenance of the records is made efficient, as all the records are stored in the Access File, through which data can be retrieved easily. The navigation control is provided in all the forms to navigate through the large amount of records. If the numbers of records are very large than user has to just type in the search string & user gets the results immediately. The editing is also made simples. The user has to just type in the required field & process the update button to update the desired field. The customers are given a particular unique id no. so that they can be access correctly & without errors. Our main aim of the project is to get the correct information about a customer visit in the Restaurant.

'Food Billing' are restaurants, hotels, cafes, food trucks, etc. In this system, user can effortlessly calculate total invoice of the customer. The total bill is calculated including service charges and state tax. All you need to do is just fill up the blank boxes with item quantities and click on receipt button. The program will display your total bill. We have a system which takes the necessary choices of the customer according to the various filter like price, category of the food, and popularity. Then he is able to place the order accordingly and then the system calculates all the total of the order with taxes and then it can dispatch the bill that is handed over to the customer. Diminishes human errors and keeps transactions explicit. Helps in devising the accuracy of all accounting records. Avoids minimal issues like hidden prices and cover every element. Reduces material costing that comes with manual billing and filing.

REFERENCES

1) www.google.com

2)www.wikipedia.com

3) IEEE SRC

4) www.github.com