SRM UNIVERSITY ANDHRA PRADESH

Introduction to Programming Using C Project Report On

Electronic Railway Ticket Booking (ERTB PROJECT)

Submitted In Partial Fulfillment For The Award Of The Degree In

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted by

Group:12 Section:C

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ABSTRACT

➪ **A**s the name suggests Railway Reservation System is software that handles the entire booking data of the railway. It is fully based on the concept of reserving train tickets for various destinations. Previously the task of handling the tickets at a time was very difficult, so there was a need for software that can handle all Railway Reservation System.

➪ The Railway Reservation System facilitates the passengers to enquire about the trains available on the basis of source and destination, booking, cancellation, PNR Status, food services, etc.

➪ This project contains Introduction to the Railways Reservation System It is the computerized system of reserving the seats of train seats in advanced. It is mainly used for long route as well as for short route also. Online reservation has made the process for the reservation of seats very much easier than ever before.

➪ We have created separate logins for the passengers as well as admin, in which the admin login is password protected. The admin panel is password-protected so, the user other than admin will not be able to access the dashboard.

CONTENTS

CHAPTER 1

INTRODUCTION

➪ **T**he whole project is based on a concept to reserve train tickets of various destinations with many other features like food services, accommodation, GPS, PNR status, WIFI, Etc.

➪ Technology has transformed many aspects of life in the 21st century. Now a days many of the people are preferring this online type activities (like online shopping, online transactions, online booking etc.). So, we think this project may be some how useful to all.

➪ Now coming to our project which is already mentioned above that the user can book the railway ticket through online. They are many advantages and features on ERTB (Electronic Railway Ticket Booking). In this the entire rights are given to the admin (like adding, modifying and cancellation and can know the information about all the trains they required.

➪ This project may use concept of file handling to store the booking data. Cancelling the ticket is a main feature of this project. And moreover, we may have displayed the menu of view information, book the ticket, cancel the ticket, admin, and exit. So, finally we are expecting that the project is more useful for society.

CHAPTER 2

OBJECTIVE

The objective of our project is to develop a system which will serve as a medium for peoples to book a ticket to travel through railways. The main goal is to ease the process of ticket booking by avoiding the hectic process to stand in a queue and book the ticket. This project intends to improve the railway administration system, which will be useful for both authorities and passengers.

CHAPTER 3

SYSTEM REQUIREMENTS

3.1 SOFTWARE REQUIREMENTS:

Language used: C

Operating System: Windows 7 Or Windows 10

3.2 HARDWARE REQUIREMENTS:

Hard Disk: 512 GB (Minimum)

Processor: Intel-i3 (Minimum)

CHAPTER 4

SYSTEM DESIGN

ALGORITHM : Algorithm is **a step-by-step procedure**, which defines a set of instructions to be executed in a certain order to get the desired output.

Step 1 → Start

Step 2 → print

1.Passenger

2. Admin

3. Exit

Step 4 → Read Choice

Step 5 → Switch case →Case 1 : Passenger

Case 2 : Admin

Case 3 : Exit

Default : print “YOU ENTERED WRONG CHOICE”

CHAPTER 4

SYSTEM DESIGN

ALGORITHM :

Step 6 → If Case 1: print

→ AVAILABLE TRAINS

→ MAKE RESERVATION

→ CANCEL RESERVATION

→ PNR STATUS

→ FOOD CATERING

→ MAIN MENU

Step 7 → If Case 2: print

→ VIEW PASSENGERS

→ ADD TRAIN

→ DELETE TRAIN

→ MAIN MENU

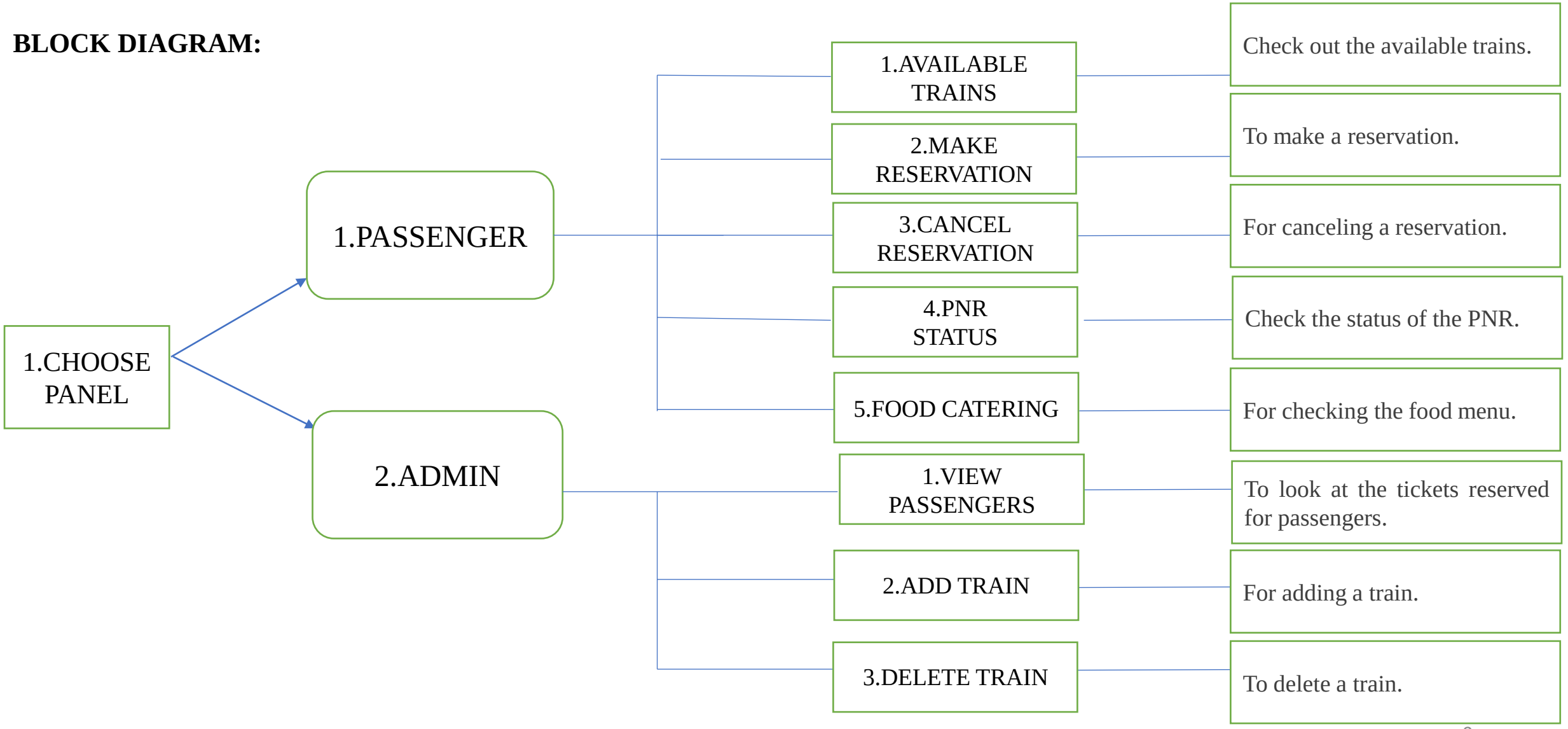
Step 8 → If Case 3: Exit

Step 9 → **End**

CHAPTER 4

SYSTEM DESIGN

BLOCK DIAGRAM:



CHAPTER 5

SYSTEM IMPLEMENTATION

HEADER FILES:

```
//-----------------------------------------ELECTRONIC RAILWAY TICKET BOOKING----------------------------------
//-----------------------------------------header files start-------------------------------------------------
#include <stdio.h>  //Standard Input Output header file.
#include <time.h>   //This header file defines four variable types, two macro and various functions for manipulating date and time.
#include <stdlib.h> //Standard Library header file.
//-----------------------------------------header files close-------------------------------------------------
```

Fig.5.1:Header Files

USER DEFINED FUNCTIONS:

```
//-----------------------------------------user define function start-----------------------------------------
void passenger();
void admin();
void viewpassenger();
void addtrain();
void dlttrain();
void bookticket();
void cancelticket();
void pnrstatus();
void foodcatering();
void Beverages();
void Breakfast();
void Meals();
void AlaCarteItems();
void foodbook();
//-----------------------------------------user define function close-----------------------------------------
```

Fig.5.2:User Defined Functions

CHAPTER 5

SYSTEM IMPLEMENTATION

STRUCTURES:

```
//-----------------------------------------structures start-----------------------------------------
struct adddata
{
    char train_number[10];
    char train_name[20];
    char from[10];
    char departure_time[10];
    char to[10];
    char arrival_time[10];
    char travel_time[10];
    int No_seats;
    char Seat_price[10];
    char date[20];
    int pnr;
} add[1000];
// The main reason to use structure because it can have multiple data types can be accepted.
```

Fig.5.3:Structures

```
struct bookticket
{
    char train_number[20];
    char first_name[20];
    char last_name[20];
    char phone[20];
    char boarding[20];
    int No_seats;
    char date[20];
    int pnr;
} book[1000];
// The main reason to use structure because it can have multiple data types can be accepted.
//-----------------------------------------structure close-----------------------------------------
```

Fig.5.4:Structures

EXPLANATION: Here, the structures have been divided into two types like adddata and bookticket. Thus, the adddata contains all the details of the train which are added by the administrator such as the name of the train, the number of the train, etc. So, the bookticket contains all the details of the train that the passenger needs to enter to book the train ticket. Structure is a user-defined datatype in C Languagewhich allows us to combine data of different types together. Structure helps to construct a complex data type which is more meaningful. It is somewhat similar to an Array, but an array holds data of similar type only.

CHAPTER 5

SYSTEM IMPLEMENTATION

GLOBAL VARIABLES:

```
//-----------------------------------------global variable-----------------------------------------
int k = 0, u = 0;
char train_number[100], name[100], phn[100];

//-----------------------------------------main function start-----------------------------------------
```

Fig.5.5:Global Variables

CHAPTER 5

SYSTEM IMPLEMENTATION

```
//---------------------------------------------main function start---------------------------------------------
void main()
{
    aread();
    viewpassengers_read();
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t **********************Welcome To Electronic Railway Ticket Booking**********************\n");
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));
    printf("-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\t\t\t\t\t\t\t\t\tPlease Choose Your Panel");
    printf("\n\n\n\t\t\t\t[1] Passenger");
    printf("\n\n\t\t\t\t[2] Admin");
    printf("\n\n\t\t\t\t[3] Exit");
    int i;
    printf("\n\n\t\t\t\tEnter Your Choice: ");
    scanf("%d", &i);
    system("clear");
     switch (i)
    {
    case 1:
        system("clear");
        passenger();
         break;
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
     case 2:
        system("clear");
        password();
        break;
    case 3:
        system("clear");
        exit(0);
        break;
    default:
        system("clear");
        printf("\n\n----------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking*********************\n");
        printf("\n\n----------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t\t\t\t!!!!!!!!YOU ENTERED WRONG CHOICE!!!!!!!!\n");
        printf("\n\n\t\t\t\t\t\t\t\t!!!!!!!!PLEASE ENTER RIGHT THING!!!!!!!!\n");
        getchar();
        system("clear");
        main();
    }
    getchar();
}
//---------------------------------------main function close-----------------------------------------------------
```

EXPLANATION: This is the main function where we can choose the passenger sign or admin sign or we can leave the program. The switch statement allows us to execute one code block among many alternatives. I therefore used switch statement among the alternatives.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
//-----------------------------------admin portal function-----------------------------------------------------
void admin()
{
    int chhh;
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t\t\t**********************Welcome To Admin Panel**********************\n");
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));
    printf("-------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\t\t\t\t\t\t\t\t\tCHOOSE YOUR OPERATION");
    printf("\n\n\n\t\t\t\t\t\t\t[1] VIEW PASSENGERS");
    printf("\n\n\t\t\t\t\t\t\t[2] ADD TRAIN");
    printf("\n\n\t\t\t\t\t\t\t[3] DELETE TRAIN");
    printf("\n\n\t\t\t\t\t\t\t[4] MAIN MENU");
    printf("\n\n\n\t\t\t\t\t\t\tENTER YOUR CHOICE: ");
    scanf("%d", &chhh);
    switch (chhh)
    {
    case 1:
        viewpassenger();
        break;
```

```
    case 2:
        addtrain();
        break;
    case 3:
        dlttrain();
        break;
    case 4:
        system("clear");
        main();
        break;
    default:
        getchar();
        printf("\n\t\t\tyou entered wrong key!!!!");
        getchar();
        system("clear");
        admin();
    }
    getchar();
}
```

EXPLANATION: The administration portal will get the passenger list, add the train, delete the train options. We used the switch case because we have a lot of options so that the switch case may have a lot of alternative choices.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
 //-------------------------------------------------------password function-----------------------------------------------
void password()
{
    int number = 12345;
    int pass;
    char user, id = user;
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking**********************\n");
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");

    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

    printf("-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\n\t\t\t\t\t\t\t\t\tEnter password: ");
    scanf("%d", &pass);
    if (pass == number)
    {
        printf("\n\n\t\t\t\t\t\t\t\t\t    You have logged in successfully");
        getchar();
        system("clear");
        admin();
    }
    else
    {
```

```
        printf("\n\n\n\t\t\t\t\t\t\t\t Error! Entered password is wrong.");
        getchar();
        system("clear");
        main();
    }
}
```

EXPLANATION: We have secured the administration panel with password so that it may not be accessed by others.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
//-------------------------------------------------------------------------passenger panel---------------------------------
void passenger()
{    {
        int p;
        printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t ********************Welcome To Passenger Ticket Booking Panel*********************\n");
        printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\n\t\t\t[1] AVAILABLE TRAINS\n");
        printf("\n\n\t\t\t[2] MAKE RESERVATION\n");
        printf("\n\n\t\t\t[3] CANCEL RESERVATION\n");
        printf("\n\n\t\t\t[4] PNR STATUS\n");
        printf("\n\n\t\t\t[5] FOOD CATERING\n");
        printf("\n\n\t\t\t[6] MAIN MENU\n");
        printf("\n\n\t\t\t\tEnter Your Choice:");
        scanf("%d", &p);
        system("clear");

        if (p == 1)
        { int ch, i;
            system("clear");
            aread();
            printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
            printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking*********************\n");
            printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
time_t t;
time(&t);
printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));
printf("--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
printf("\n\n\n    \tTRAIN NO\tTRAIN NAME\tFROM\t  DEPARTURE TIME\t TO\tARRIVAL TIME\tTOTAL TIME\tSL\tDATE\n\n");
for (i = 0; i < k; i++)
{
    printf("\t  %s\t\t  %s\t\t%s\t       %s\t\t  %s\t    %s\t%s\t%d\t%s\n", add[i].train_number, add[i].train_name, add[i].from, add[i].departure_time, add[i].to, add[i].arrival_time, add[i].travel_time, add[i].No_seats, add[i].date);
}
printf("\n\n\n\t\tEnter 1 to go back to previous menu or Enter 0 to go back to main menu");
printf("\n\n\n\t\tENTER YOUR CHOICE: ");
int v;
scanf("%d", &v);
system("clear");
switch (v)
{
case 1:
    passenger();
    break;
case 0:
    system("clear");
    main();
    break;
```

SYSTEM IMPLEMENTATION

```
default:
            getchar();
            printf("\n\t\t\tyou entered wrong key!!!!");
            getchar();
            system("clear");
            main();
        }
    }
    if (p == 2)
    {
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking*********************\n");
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------");

        time_t t;
        time(&t);
        printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

        printf("--------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\n\n\n\n\n\t\tEnter '1' to proceed");
        printf("\n\n\n\t\tEnter '2' to go back to previous menu or Enter '0' to go back to main menu");
        printf("\n\n\n\t\tENTER YOUR CHOICE: ");
        int v;
        scanf("%d", &v);
        system("cls");
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
switch (v)
        {
        case 1:
           bookticket();
           break;
        case 2:
           passenger();
           break;
        case 0:
           system("cls");
           main();
           break;
        default:
           printf("\n\t\t\tyou entered wrong key!!!!");
           getch();
           system("cls");
           main();
        }
      }
      if (p == 3)
      {
         printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
         printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking*********************\n");
         printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
time_t t;
        time(&t);
        printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

        printf("---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\n\n\n\n\n\t\tEnter '1' to proceed");
        printf("\n\n\n\t\tEnter 2 to go back to previous menu or Enter 0 to go back to main menu");
        printf("\n\n\n\t\tENTER YOUR CHOICE: ");
        int v;
        scanf("%d", &v);
        system("clear");
        switch (v)
        {
        case 1:
            cancelticket();
            break;
        case 2:
            passenger();
            break;
        case 0:
            system("clear");
            main();
            break;
        default:
```

SYSTEM IMPLEMENTATION

```
printf("\n\t\t\tyou entered wrong key!!!!");
            getchar();
            system("clear");
            main();
        }
    }
    if (p == 4)
    {
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t **********Welcome To Electronic Railway Ticket Booking**********\n");
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------");

        time_t t;
        time(&t);
        printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

        printf("--------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\n\n\n\n\n\t\tEnter '1' to proceed");
        printf("\n\n\n\t\tEnter 2 to go back to previous menu or Enter 0 to go back to main menu");
        printf("\n\n\n\t\tENTER YOUR CHOICE: ");
        int v;
        scanf("%d", &v);
        system("clear");
        switch (v)
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
printf("\n\t\t\tyou entered wrong key!!!!");
                {
        case 1:
            status();
            break;
        case 2:
            passenger();
            break;
        case 0:
            system("clear");
            main();
            break;
        default:
            printf("\n\t\t\tyou entered wrong key!!!!");
            getchar();
            system("clear");
            main();
        }
    }
    if (p == 5)
    {
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking*********************\n");
        printf("\n\n--------------------------------------------------------------------------------------------------------------------------------------------------------------------");
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
time_t t;
        time(&t);
        printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

        printf("----------------------------------------------------------------------------------------------------------------------------------------------------------------------------");
        printf("\n\n\n\n\n\n\n\t\tEnter '1' to proceed");
        printf("\n\n\n\t\tEnter 2 to go back to previous menu or Enter 0 to go back to main menu");
        printf("\n\n\n\t\tENTER YOUR CHOICE: ");
        int v;
        scanf("%d", &v);
        system("clear");
        switch (v)
        {
        case 1:
            foodcatering();
            break;
        case 2:
            passenger();
            break;
        case 0:
            system("clear");
            main();
            break;
        default:
```

```
            printf("\n\t\t\tyou entered wrong key!!!!");
            getchar();
            system("clear");
            main();
        }
    }
    if (p == 6)
    {
        system("clear");
        main();
    }
  }
}
```

EXPLANATION: The passenger panel contains options like trains available, reservation, cancellation, PNR status, food menu.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
//----------------------------------------book ticket-----------------------------------------------------------------------
void bookticket()
{
    int c, j, n, i, found = -1;
    char v, train_number[10];
    system("cls");
    aread();
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t **********************Welcome To Electronic Railway Ticket Booking**********************\n");
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));
    printf("-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\thow many ticket do you want to buy: ");
    scanf("%d", &n);
    for (j = u; j < u + n; j++)
    {
        printf("\n\n\t\t\tEnter train number: ");
        scanf("%s", book[j].train_number);
        for (i = 0; i < k; i++)
        {
            if (strcmp(book[j].train_number, add[i].train_number) == 0)
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
{
        if (add[i].No_seats == 0)
        {
            printf("\n\n\t\t\tnot available seat");

            getch();
            system("cls");
            main();
        }
        else
        {
            found = 1;
            printf("\n\t\t\tenter book %d no ticket: ", j + 1);
            printf("\n\t\t\tenter date: ");
            scanf("%s", book[j].date);
            printf("\n\t\t\tenter your name: ");
            scanf("%s", book[j].first_name);
            printf("\n\t\t\tenter your phone number: ");
            scanf("%s", book[j].phone);
            printf("\n\t\t\tseat number : %d", add[i].No_seats);
            book[j].No_seats = add[i].No_seats;
            printf("\n\n\n\t\tPNR:%d", add[i].pnr);
            book[j].pnr = add[i].pnr;
            bookticket_write();
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
add[i].No_seats--;
                add[i].pnr++;
                awrite();
            }
        }
    }
    if (found == -1)
    {
        printf("\n\n\t\t\ttrain not found!!!");
        getch();
        system("cls");
        main();
    }
}
u = j;
bookticket_write();
printf("\n\n\t\t\tenter '2' for main menu 1 for previous menu& press any key to exit: ");
scanf("%d", &c);
if (c == 1)
{
    system("cls");
    passenger();
}
```

```
    if (c == 2)
    {
        system("cls");
        admin();
    }
    else
    {
        exit;
    }
}
```

EXPLANATION: This option enables us to book tickets where passenger details must be entered here i.e. name, phone number, date, etc.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
    //-------------------------------------view passengers function----------------------------------------
void viewpassenger()
{
    int a, j;
    system("clear");
    printf("\n\n----------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t ********************Welcome To Electronic Railway Ticket Booking**********************\n");
    printf("\n\n----------------------------------------------------------------------------------------------------------------------------------------------------------------");
    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

    printf("----------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\tTrain NO\t\tFIRST NAME\t\tPHONE\t\tDATE\t\tSEAT\t\tPNR\n");
    for (j = 0; j < u; j++)
    {
        printf("\n\t\t\t%s\t\t\t%s\t\t%s\t\t%s\t%d\t\t%d", book[j].train_number, book[j].first_name, book[j].phone, book[j].date, book[j].No_seats, book[j].pnr);
        book[j].No_seats++, book[j].pnr;
    }
    printf("\n\n\n\t\tEnter 1 to go back to previous menu or Enter 0 to go back to main menu");
    printf("\n\n\n\t\tENTER YOUR CHOICE: ");
    int v;
    scanf("%d", &v);
    system("clear");
```

```
switch (v)
    {
    case 1:
        admin();
        break;
    case 0:
        system("clear");
        main();
        break;
    default:
        printf("\n\t\t\tyou entered wrong key!!!!");
        getchar();
        system("clear");
        main();
    }
}
```

EXPLANATION: This function lets us view a list of reserved passengers.

CHAPTER 5

SYSTEM IMPLEMENTATION

```
//-------------------------------------add train function-------------------------------------------
void addtrain()
{
    system("clear");
    int ch;
    aread();
    int i, a;
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t **********************Welcome To Electronic Railway Ticket Booking**********************\n");
    printf("\n\n-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));
    printf("-------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\tNumber Of Trains To Be Added= ");
    scanf("%d", &a);
    for (i = k; i < k + a; i++)
    {
        printf("\n\t\t\tenter %d train details: ", i + 1);
        printf("\n\n\t\t\tenter train number: ");
        scanf("%s", add[i].train_number);
        printf("\n\t\t\tenter train name: ");
        scanf("%s", add[i].train_name);
        printf("\n\t\t\tenter start place: ");
```

CHAPTER 5

SYSTEM IMPLEMENTATION

```
scanf("%s", add[i].from);
        printf("\n\t\t\tenter departure time: ");
        scanf("%s", add[i].departure_time);
        printf("\n\t\t\tenter destination place: ");
        scanf("%s", add[i].to);
        printf("\n\t\t\tenter arrival time: ");
        scanf("%s", add[i].arrival_time);
        printf("\n\t\t\tenter travel time: ");
        scanf("%s", add[i].travel_time);
        printf("\n\t\t\tenter number of sleeper seats: ");
        scanf("%d", &add[i].No_seats);
        printf("\n\t\t\tenter price of sleeper seat: ");
        scanf("%s", add[i].Seat_price);
        printf("\n\t\t\tenter date of train: ");
        scanf("%s", add[i].date);
        printf("\n\t\t\tenter pnr sequence of train: ");
        scanf("%d", &add[i].pnr);
    }

    printf("\n\n\t\t\tconfirm train: (y=1/n=0):- ");
    scanf("%d", &ch);
    if (ch == 1)
    {
        awrite();
```

SYSTEM IMPLEMENTATION

```
    k = i;
    awrite();
    system("clear");
    printf("\n\n-----------------------------------------------------------------------------------------------------------------------------------------------------------------------");
    printf("\n\n\t\t\t\t\t **********Welcome To Electronic Railway Ticket Booking**********\n");
    printf("\n\n-----------------------------------------------------------------------------------------------------------------------------------------------------------------------");

    time_t t;
    time(&t);
    printf("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t%s", ctime(&t));

    printf("-----------------------------------------------------------------------------------------------------------------------------------------------------------------------");

    printf("\n\n\t\t\t\t\t\t\t\tThe Train Has Been Added Successfully!!!!");
}
printf("\n\n\n\t\tEnter 1 to go back to previous menu or Enter 0 to go back to main menu");
printf("\n\n\n\t\tENTER YOUR CHOICE: ");
int v;
scanf("%d", &v);
printf("\n\n\n\n\n-----------------------------------------------------------------------------------------------------------------------------------------------------------------------");
system("clear");
switch (v)
{
case 1:
    admin();
```

```
            break;
    case 0:
        system("clear");
        main();
        break;
    default:
        printf("\n\t\t\tyou entered wrong key!!!!");
        getchar();
        system("clear");
        main();
    }
}
```

EXPLANATION: This function is used by admin to add train details like train name, train number,number of seats,etc.

CHAPTER 6

RESULTS

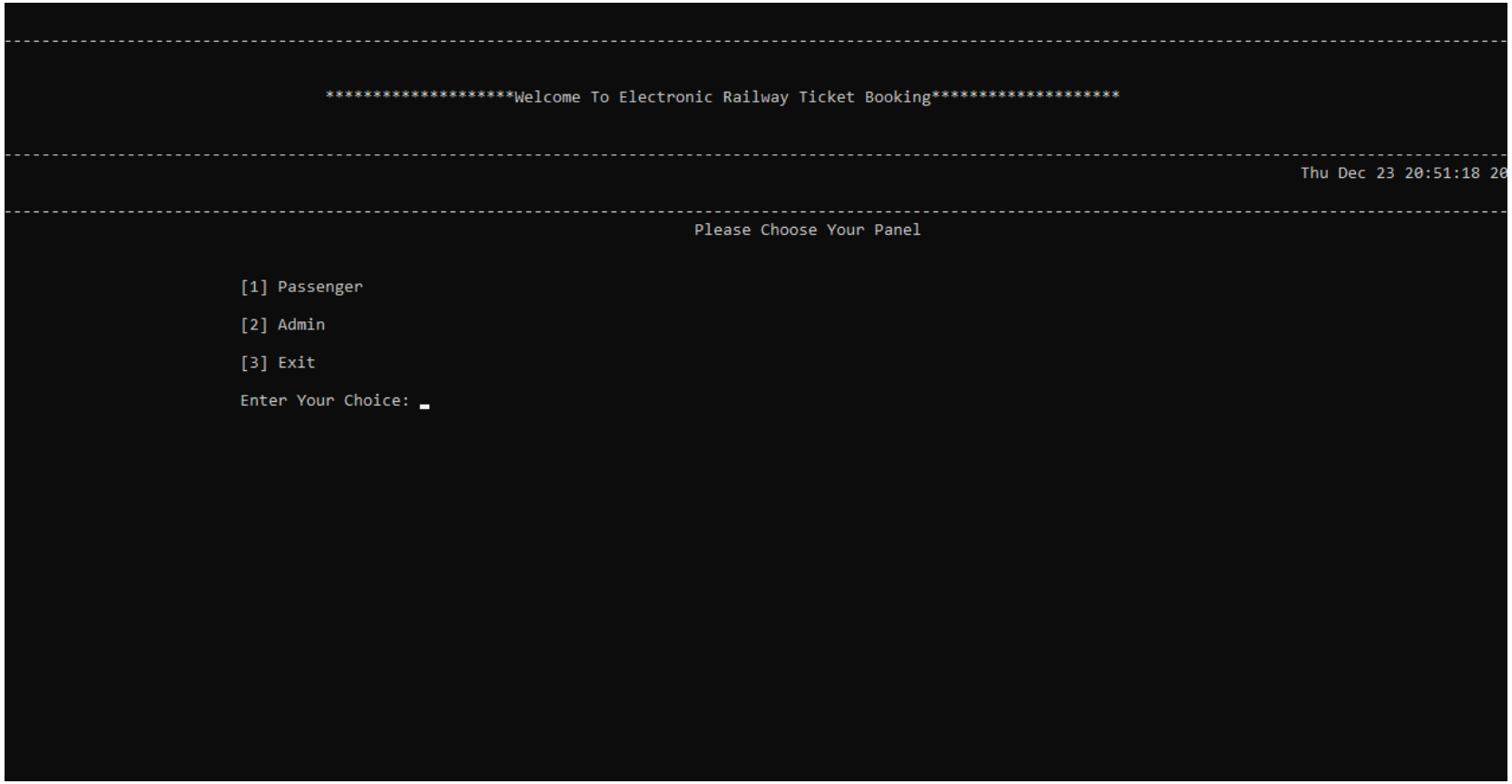


Fig.6.1:Choose Your Panel

This is the Main Panel where the Passenger Panel and admin Panel is displayed. When we enter the choice as ‘1’ it displays the passenger panel and choice as ‘2’ it displays the admin panel.

CHAPTER 6

RESULTS

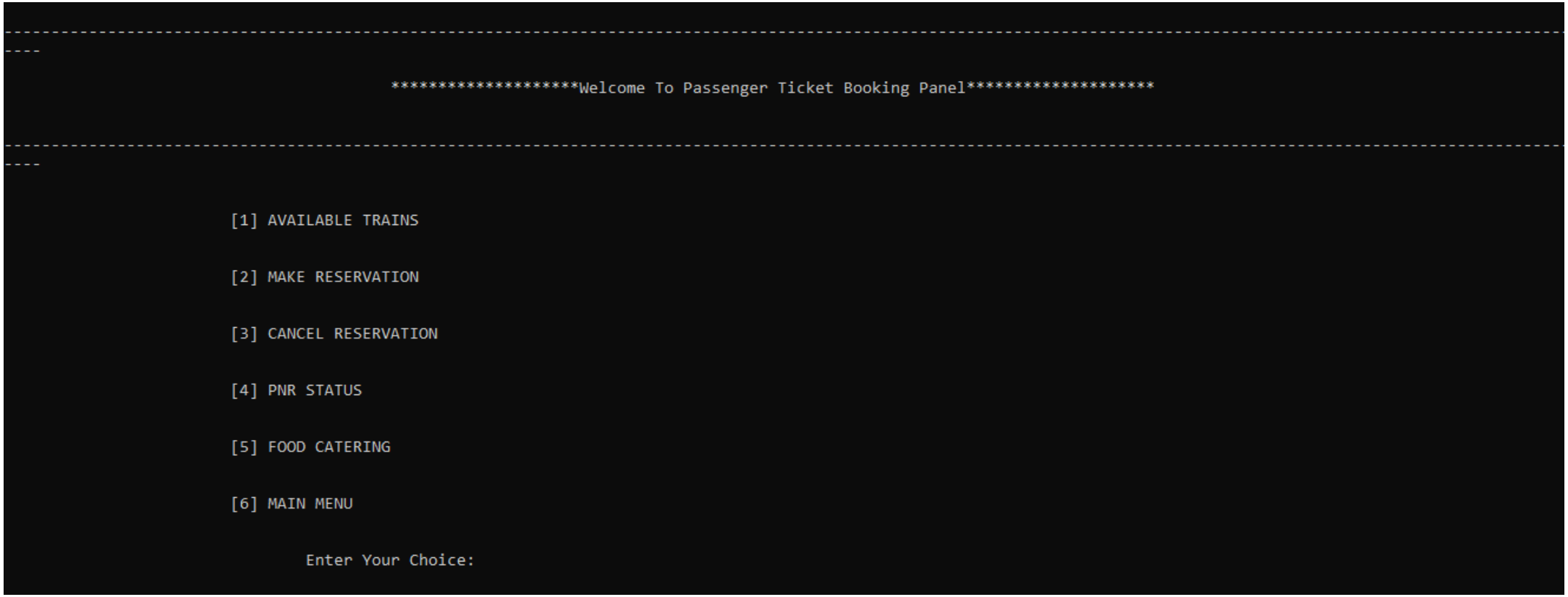


Fig.6.2:Passenger Panel

This is the passenger panel where we can Make reservation , cancel them, check the availability of the trains , Preorder the food and check the pnr status as well. When we input the following options which is mentioned it leads us to the respective panels.

CHAPTER 6

RESULTS

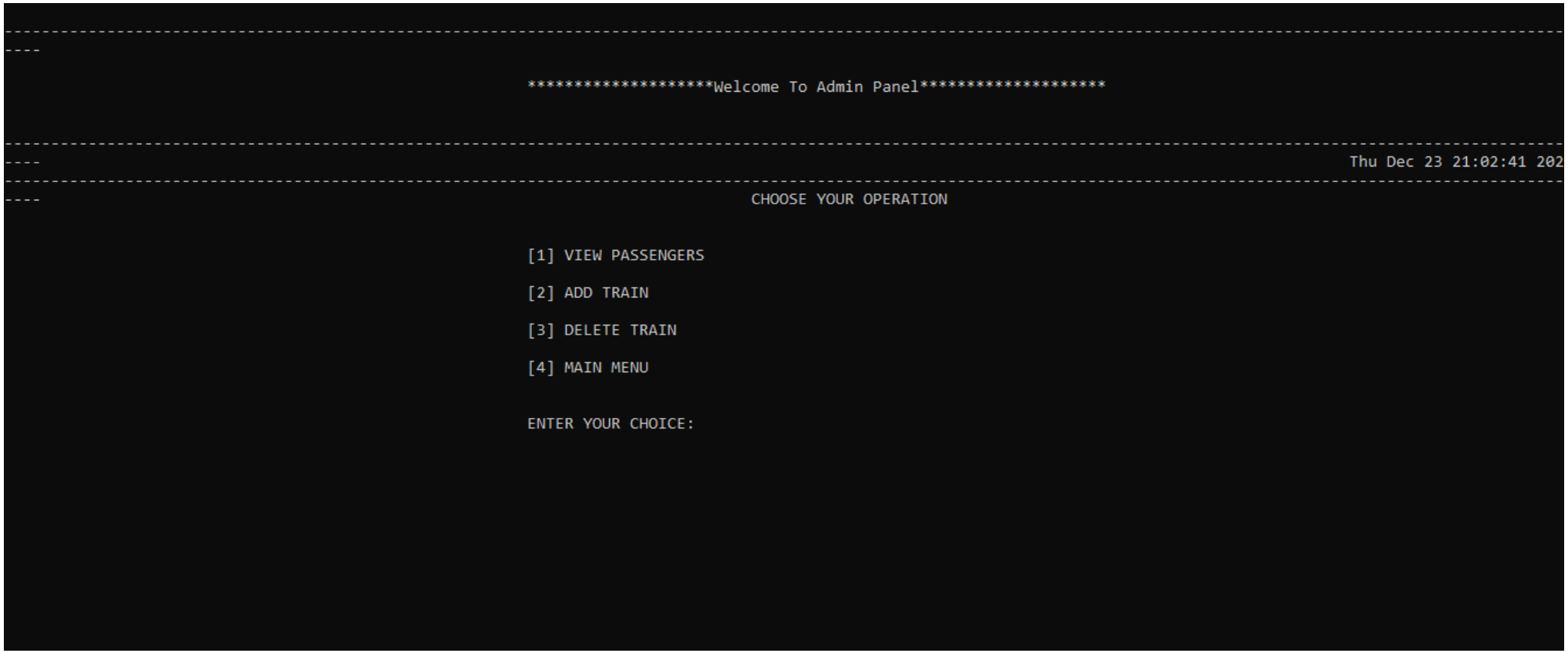


Fig.6.3:Admin Panel

This is the Admin Panel where we can know details about the Passengers travelling. We can add trains and delete them as well. In order to go to the main menu if we opt for the choice ‘4’, it leads us to the main menu.

CHAPTER 6

RESULTS

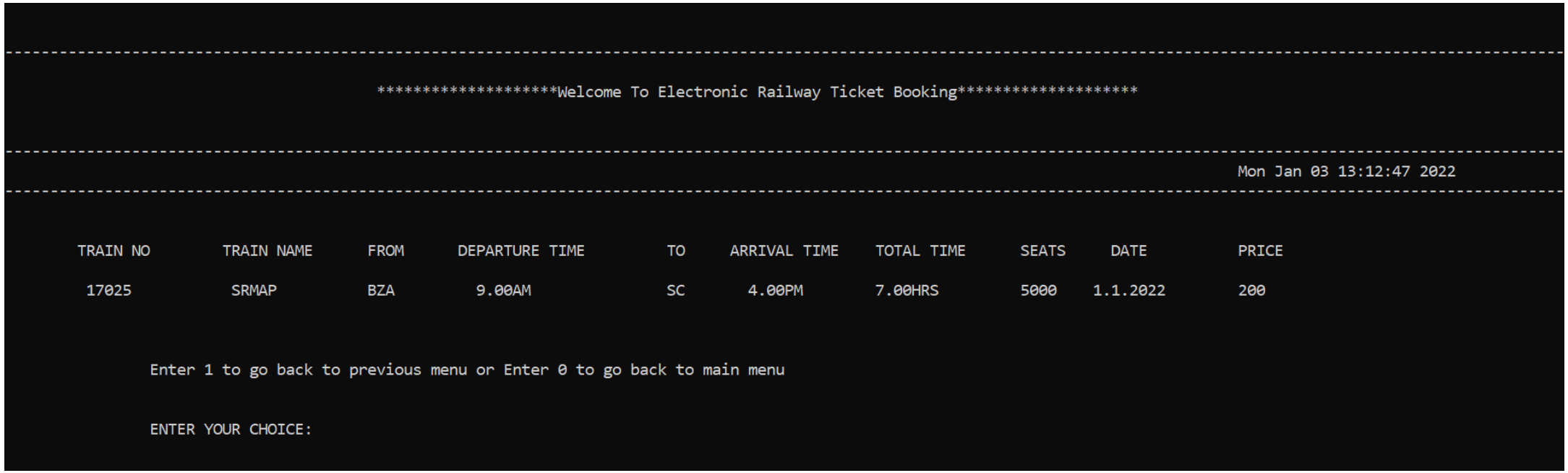


Fig.6.4:Available Trains

Once we input choice‘1’ from the Passenger panel, it leads us to the available train panel. It mentions the train no: train name, date. It also includes the time and place of the departure and arrival as well.

CHAPTER 6

RESULTS

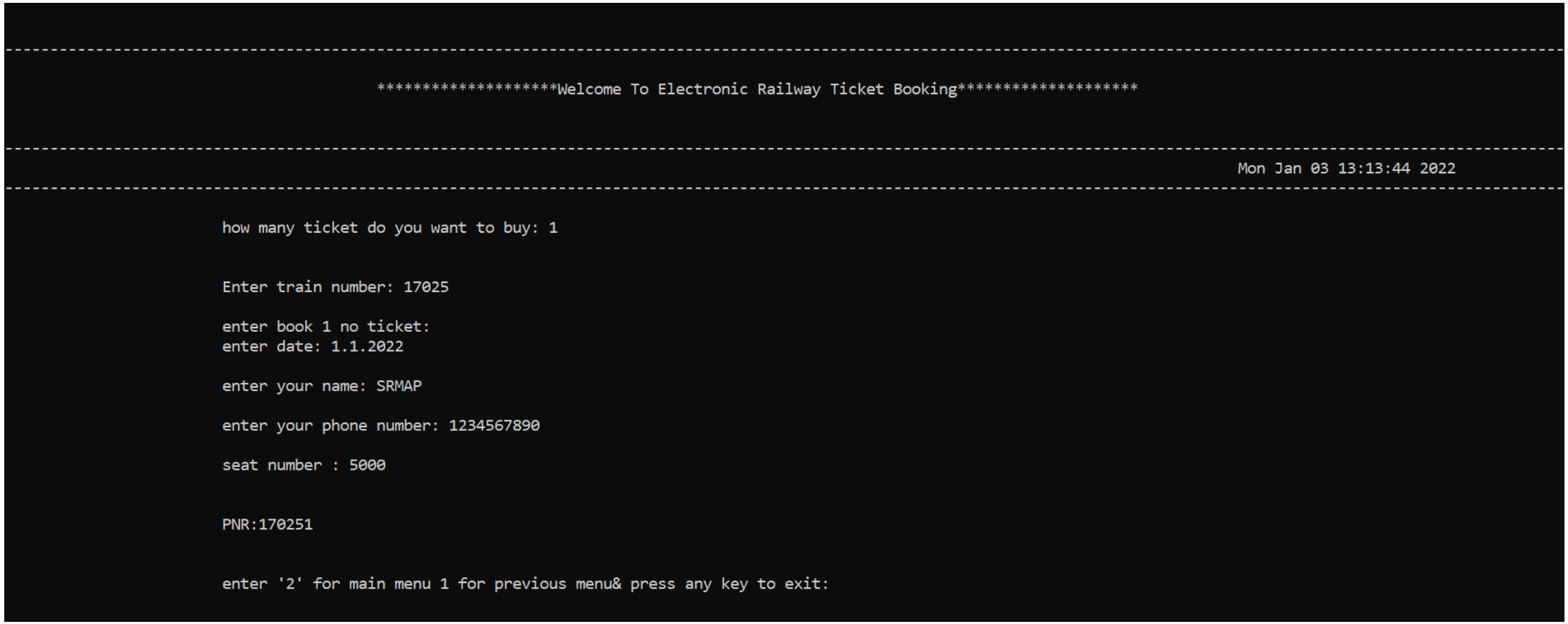


Fig.6.5:Make Reservation

When we input the choice ‘2’ from the Passenger panel , it leads us to the make reservation panel where we can book the tickets. So it asks us the details of the no: of tickets which is needed and date when we need to travel and our name and contact number as well and allocate the seat accordingly.

CHAPTER 6

RESULTS

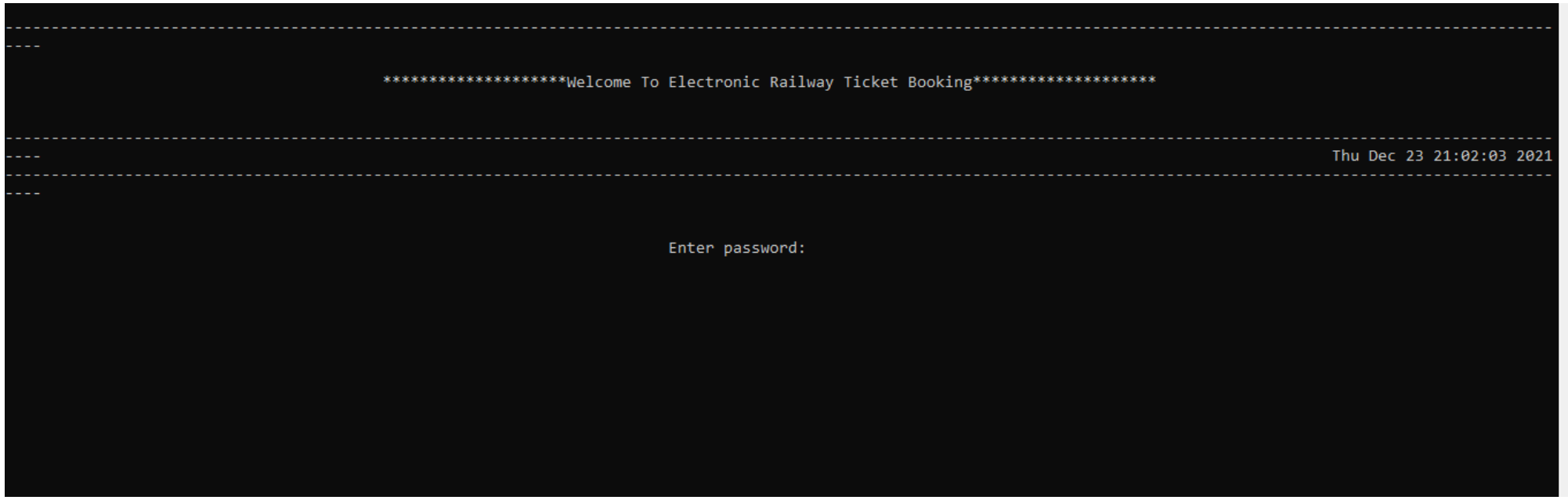


Fig.6.6:Password Protected(Admin Panel)

While accessing the admin panel, a password is required to access it . So once we enter the password , it can be opened after that.

CHAPTER 6

RESULTS

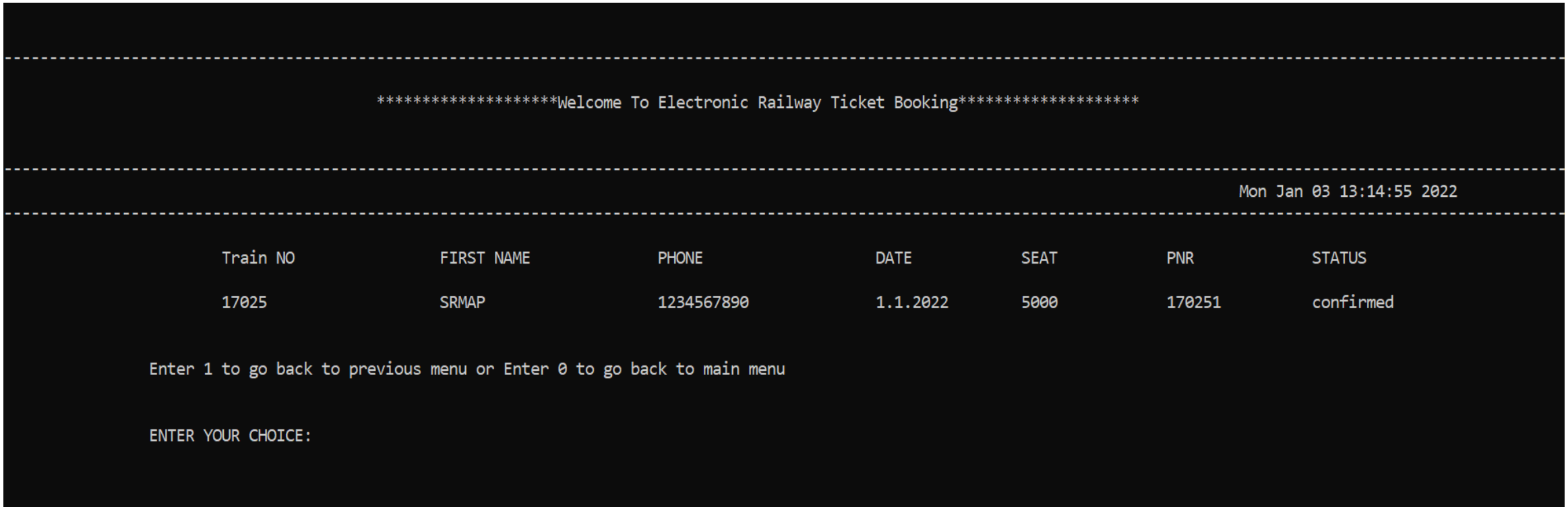


Fig.6.7:View Passengers

As soon as we input choice ‘1’ from the admin panel , View passenger panel opens up. In this panel the admin can see the details of the passenger which includes their train no: , name , contact no: , date, seat number and the pnr no: as well.

CHAPTER 6

RESULTS

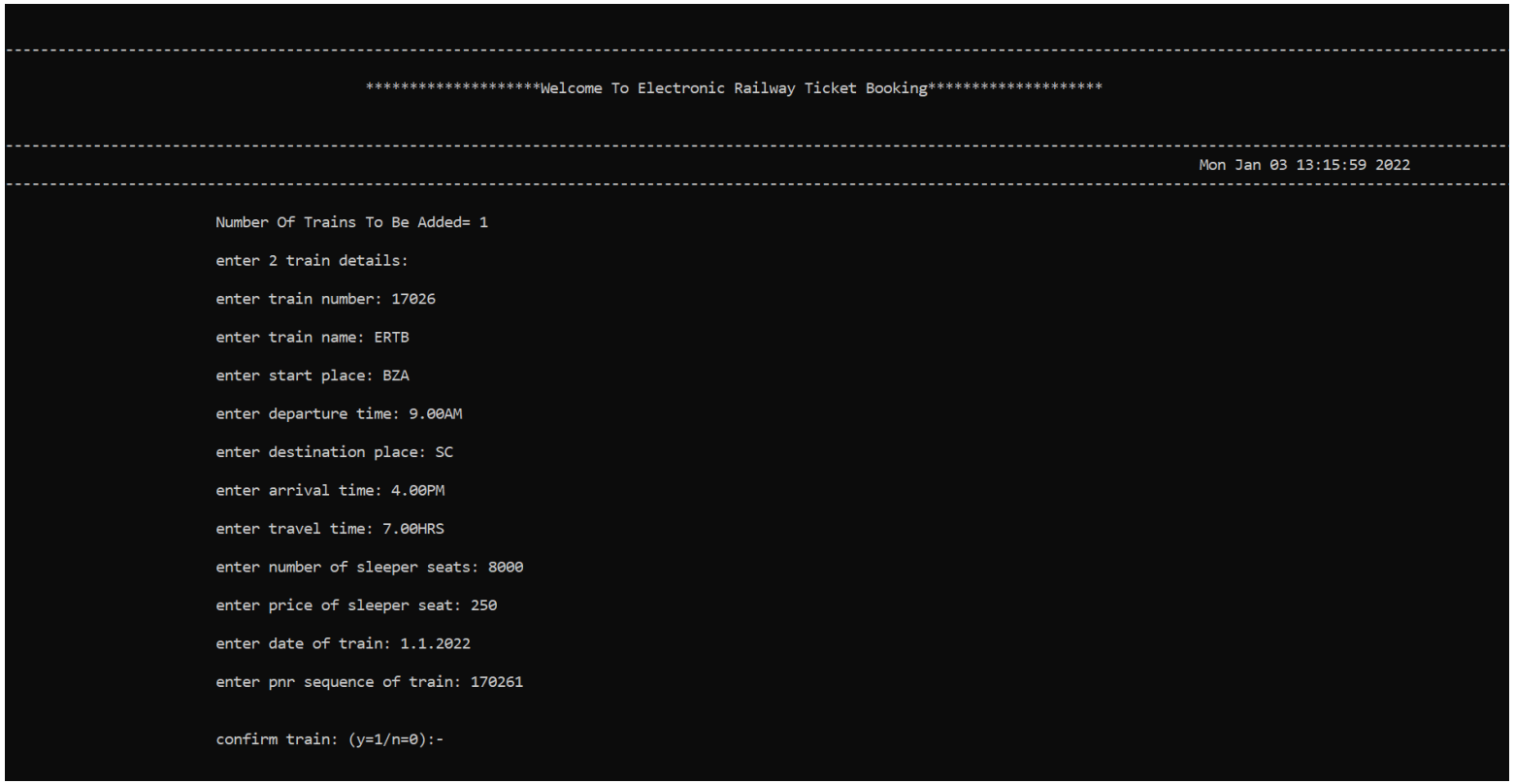


Fig.6.8:Add Train

When we input choice ‘2’ from the admin panel we are redirected to the add train panel. This is the panel where the admin can add the train details mentioning the train no: , arrival and departure place , arrival and departure time, PNR Status , and no: of he seats required and the price of the seats as well.