



**SRI KRISHNA COLLEGE OF ENGINEERING AND
TECHNOLOGY**

(An Autonomous Institution)



(Approved by AICTE and Affiliated to Anna University, Chennai)

ACCREDITED BY NAAC WITH "A" GRADE

RAILWAY RESERVATION SYSTEM

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ABOUT US & CONTACT US

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ABSTRACT

This project is mainly used by the passengers .Railway Reservation is an application used to book tickets through online. This is developed using C language. It can perform operations like Reservation,Confirmation,Cancellation,Banking and Query. It helps the passengers to book tickets anywhere at any time.

OBJECTIVE

The main objective is to reserve and confirm the tickets, only when the user entered details are valid. Cancellation of tickets is also done without any errors.

EXISTING SYSTEM

- In the Existing System, booking of train tickets is done.
- Cancellation of tickets is done.
- Banking facilities are done.

PROPOSED SYSTEM

- Along with the existing system some additional features are added to this system.
- Queries if any, from the passenger.
- Display of the ticket after reservation..

SPECIFICATIONS

HARDWARE SPECIFICATION

- System : Intel Pentium Processor.
- Hard Disk : 8 Gb
- Monitor : 15 VGA Color.
- Ram : 2 Gb ram

SOFTWARE SPECIFICATION

- Dev C

PROGRAMMING LANGUAGE USED

- C

OPERATING SYSTEM USED

- Windows

BUDGET

Actually costing has been according to the following factors.

1. Man Power - 5
2. Time taken -72 hours
3. Rent -NIL
4. Equipment- 3 computers with operating system
5. Managing work-Implementation and Documentation

By following these criteria we have arrived to an estimation of around ₹500

HIGH LEVEL DATA DOCUMENTATION

BACKGROUND:

The railway reservation system facilitates the passenger to enquire about the train available on the basis of source and destination. Booking and cancellation of tickets, enquire about the status of the booked ticket, etc. The aim of the project is to reserve tickets and book seats and maintaining the records of the different trains, train status and passengers.

The basic functions being performed by our system are reservation and cancellation. Customers can find the proper and correct information about the railway and shows that it reserves and cancels seats for the passenger. It contains information about the trains. It contains information about the Seat Availability. Railway time table Reservation Possibilities. Train Ticket booking, Booked Railway Ticket Status.

REQUIREMENTS

MODULE	TOPICS
1	RESERVATION
2	CONFIRMATION
3	CANCELLATION
4	BANKING
5	QUERY

MODULE I: RESERVATION

For Booking tickets, take the destination source, date of journey. According to the given details the available train will be displayed with arrival time and departure time. Passenger will be allowed to select the one of the available train and give the details of each passenger one by

one like name, gender, age, phone number, seat type etc.

MODULE II: CONFIRMATION

For checking PNR status take the PNR from the user. Check whether it's valid or not if not valid give appropriate message to the user else show the details of the PNR like name, seat number, quota to the user.

MODULE III: CANCELLATION

For cancelling it is necessary that before two days of journey date passenger can cancel ticket.

For cancelling ticket take PNR number from the user check whether it is valid or not. If not valid display appropriate message to user else display the details of the PNR number and ask sure user want to cancel the ticket if yes then cancel the reservation of the PNR number.

MODULE IV: BANKING

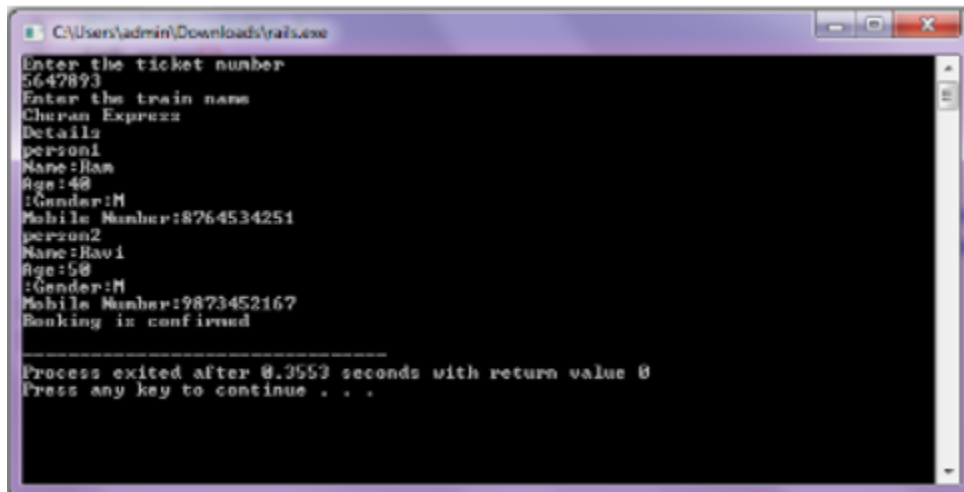
When the passenger likes to pay the ticket amount during ticket reservation, the passenger gives the details like account number and password, so if the given details were correct, the corresponding ticket price will be deducted from the account and the booking will be confirmed.

MODULE V: QUERY

This module is about the feedback by the passenger after the journey. If the passenger feels any discrepancies during the journey passenger can leave a comment here it will be recovered by the organization within two days.

SAMPLE SCREENSHOTS

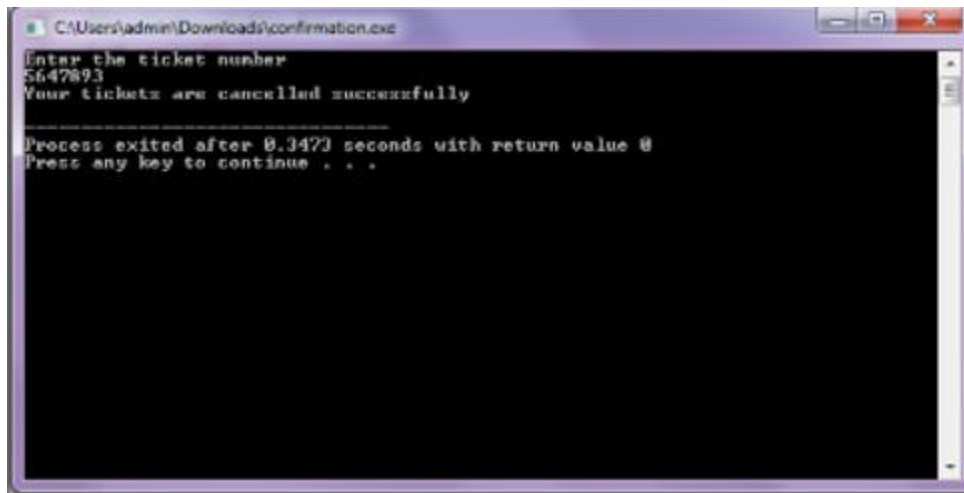
MODULE I: RESERVATION



```
C:\Users\admin\Downloads\rails.exe
Enter the ticket number
5647893
Enter the train name
Cheran Express
Details
person1
Name: Ram
Age: 40
Gender: M
Mobile Number: 8764534251
person2
Name: Ravi
Age: 50
Gender: M
Mobile Number: 9873452167
Booking is confirmed

-----
Process exited after 0.3553 seconds with return value 0
Press any key to continue . . .
```

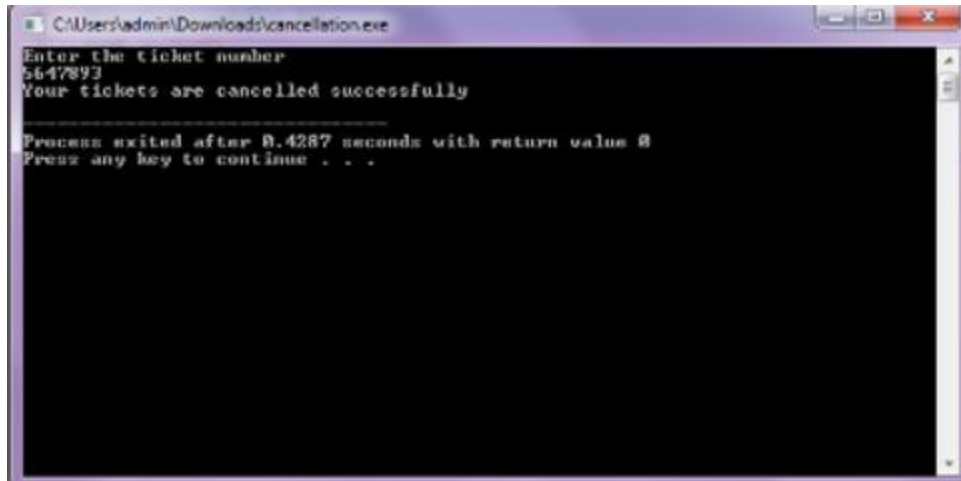
MODULE II: CONFIRMATION



```
C:\Users\admin\Downloads\confirmation.exe
Enter the ticket number
5647893
Your tickets are cancelled successfully

-----
Process exited after 0.3473 seconds with return value 0
Press any key to continue . . .
```

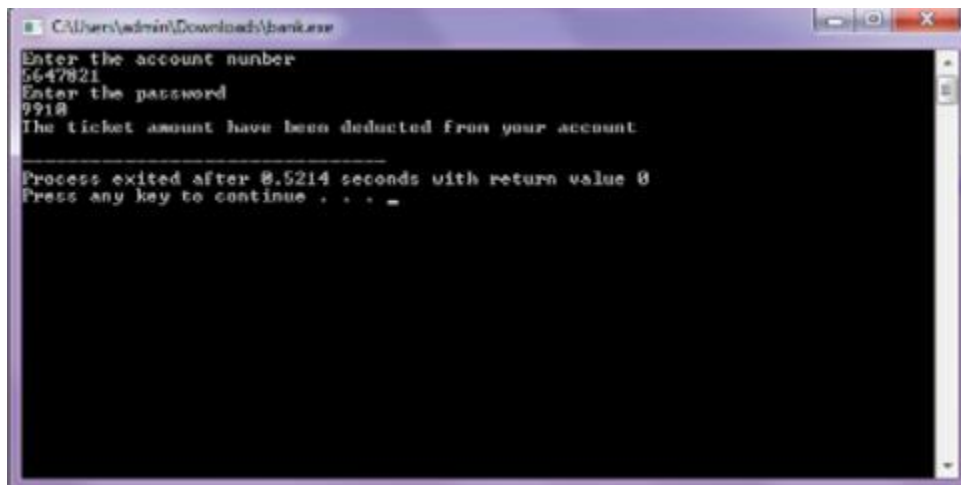
MODULE III: CANCELLATION



```
C:\Users\admin\Downloads\cancellation.exe
Enter the ticket number
5647893
Your tickets are cancelled successfully

-----
Process exited after 0.4287 seconds with return value 0
Press any key to continue . . .
```

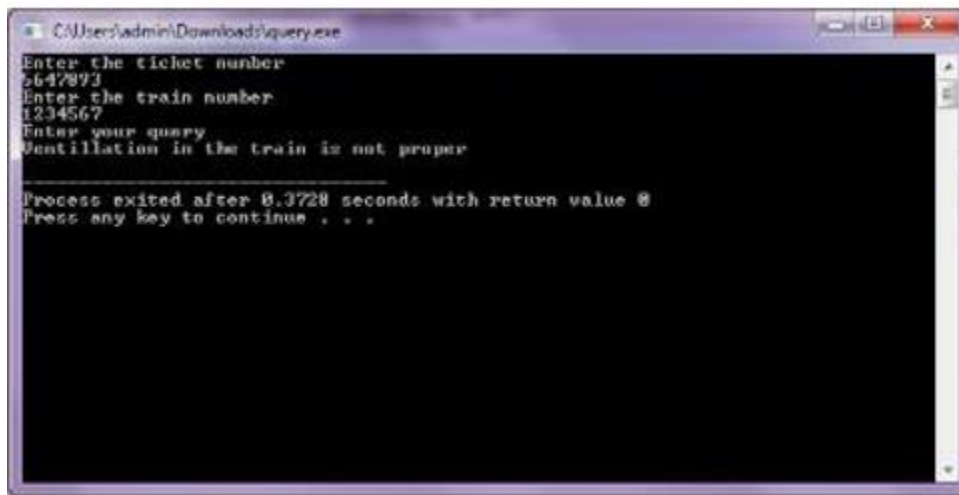
MODULE IV: BANKING



```
C:\Users\admin\Downloads\bank.exe
Enter the account number
5647821
Enter the password
9910
The ticket amount have been deducted from your account

-----
Process exited after 0.5214 seconds with return value 0
Press any key to continue . . .
```

MODULE V:QUERY



```
C:\Users\admin\Downloads\query.exe
Enter the ticket number
6647893
Enter the train number
1234567
Enter your query
Ventillation in the train is not proper

-----
Process exited after 8.3728 seconds with return value 0
Press any key to continue . . .
```

LOW LEVEL DATA DOCUMENTATION :

MAIN ROUTINE

1. void main()

Function: Based on the choice of sub routines which is called

Parameters: None

Returns: None

SUBROUTINE 1: REGISTRATION

1. void Reservation()

Function: A reservation module to get the dates, from and to and to search about the availability of the trains running on that specific date and to the specified place.

Parameters: None

Returns: None

SUBROUTINE 2: CONFIRMATION

1. void confirm()

Function: In this module it checks the PNR number and display the status of that particular ticket and preview the ticket.

Parameters: None

Return: None

SUBROUTINE 3: CANCELLATION

1. void Cancellation ()

Function: In this module according to the PNR of that ticket that particular ticket has been cancelled.

Parameter : None

Retrun :None

SUBROUTINE 4: BANKING DETAILS

1. void Accountdet()

Function: In this module the username and password the specific account and the account number is brought from the user for reservation of the ticket and the ticket is reserved and the preview of the ticket is displayed.

Parameter :None

Return :None

SUBROUTINE 5: QUERY

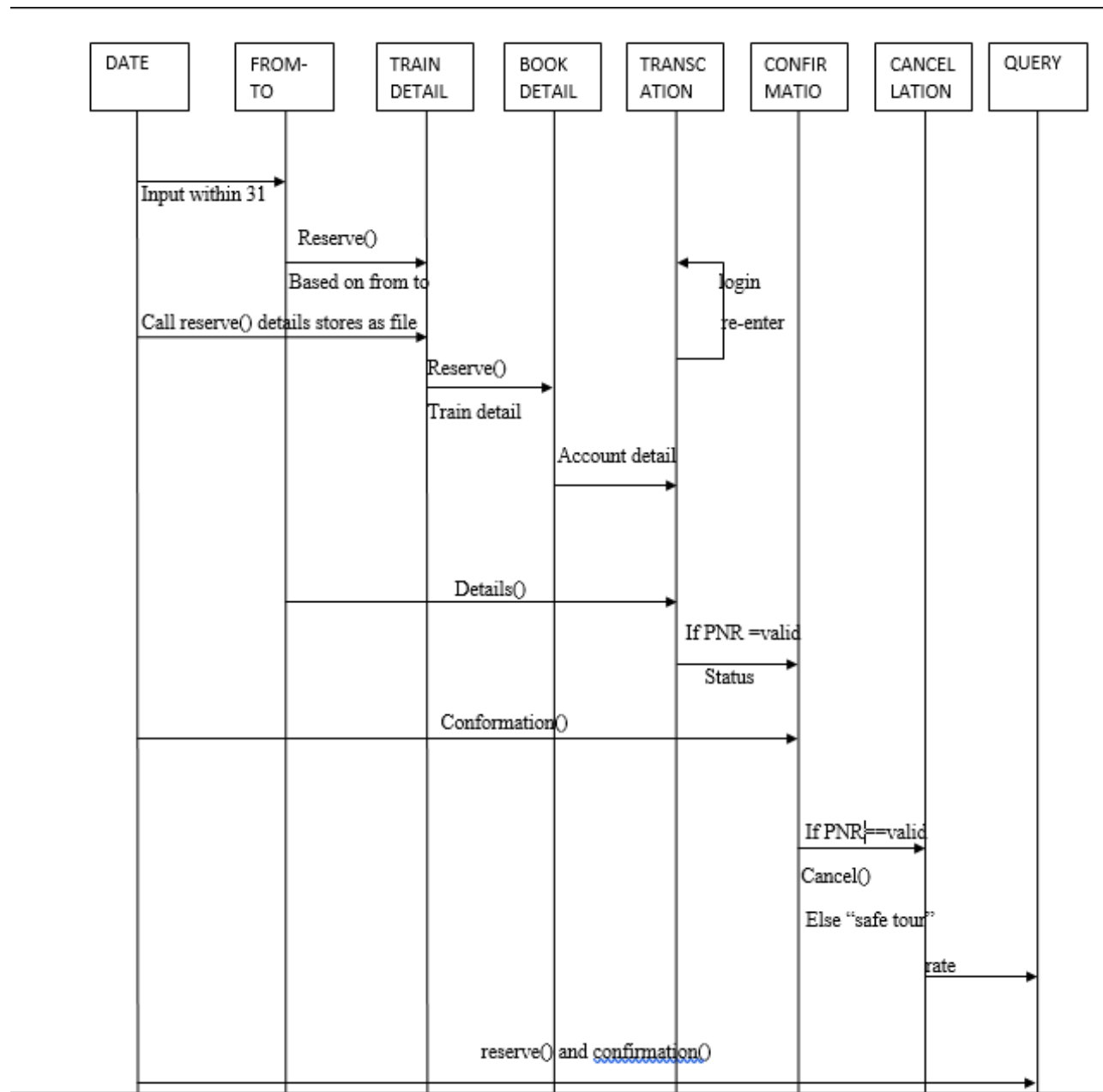
1. void Query ()

Function: In this module feedback and the rating can be given and also if any queries are there they can approach here for frequent action.

Parameter : None

Retrun :None

CONTROL FLOW DIAGRAM



ALGORITHM

MODULE I: RESERVATION

INPUT:

Departure
Destination
Date
Name
Age
Gender
Seat type
Phone Number

OUTPUT

Train detail
Arrival time
Departure time
Total amount

LOOPING:

Number of passengers

CONDITION:

Condition for Quota(AC/Non AC/Seater/Sleeper)

Step 1: Start the process

Step 2: Get the details from and to and also the personal details of the passenger

Step 3: Get the Journey details

Step 4: If the passenger are greater than 1,design a looping statement for personal details

Step 5: On finalizing the number of customers

Step 6: Select the Quota for the reservation and check the condition for AC Quota or Non AC Quota and Seater or Sleeper

Step 7: Train details and the total amount will be displayed.

MODULE II:CONFIRMATION

INPUT:

PNR number

Train number

OUTPUT:

Status of the seat

Waiting seat

Confirm seat

RAC

LOOPING:

No looping

CONDITION:

Checking of train number and PNR number

Step 1: Enter the the PNR number and the train number

Step 2: Display the status of the seat

MODULE III: CANCELLATION

INPUT:

PNR number

OUTPUT:

Cancellation status

Details cancelled displayed

LOOPING:

No looping

CONDITION:

Cancel confirmed

Yes or no

Step 1: Enter the PNR number

Step 2: Ask for the confirmation of cancellation if yes

Step 3:Display successfully cancelled

Step 4: If not display the booked ticket details again.

MODULE IV: BANKING

INPUT:

Account number

Password

OUTPUT:

PNR number

Train number

Status of the passenger

LOOPING:

No looping

CONDITION:

Online or Offline payment

Payment status

Successfully done

Transaction failed

Step 1: Check the mode payment(online or offline)

Step 2: If it is an online payment, enter the account number and password

Step 3: On validating the account number, password and the sufficient amount

Step 4: Display the generated PNR number and the train number

Step 5: If the payment is less than the total number, it is an invalid account number or

Password

Step 6: Abort the process.

MODULE V: QUERY

INPUT:

Description of the comment

OUTPUT:

Display the Greed message

LOOPING:

No looping

CONDITION:

No condition

Step 1: Enter the description of the thoughts

Step 2: Display th Greed message.

PSEUDOCODE

MODULE 1: RESERVATION

BEGIN

Get from detail

Get to detail

L1: Get n

Get name

Get age

if (n>1)

L1:

Get Quota

if(Quota==AC)

if(AC==Sleeper)

Amount = 650

else

Amount = 400

else if(Quota==Non AC)

if(Non AC==Sleeper)

Amount = 350

else

Amount = 180

Display name

Display age

Display from and to details

Display total amount

END

MODULE II:CONFIRMATION

BEGIN

Values:

Get PNR

```
Get trainno
if(values == valid)
if(status == confirm)
Display confirmation
else if(value == RAC)
Display RAC
else
Display waitinglist
else
Display “enter the valid value”
END
```

MODULE III: CANCELLATION

```
BEGIN
Get PNR
Get value
if(value == yes)
Display ticket cancelled successfully
Display details of cancellation
else
Display details of booked
END
```

MODULE IV: BANKING

```
BEGIN
Get pay_mode
if(pay_mode==online)
Get accountnumber
Get password
if(totalamount > balance)
Display status “booked”
```

```
else
if(totalamount == balance)
Display agree statement
Get input
if(yes)
Dispaly status “booked”
else
Display “not booked”
else
Display invalid transcation
else
Display pay offline
Display details
END
```

MODULE V:QUERY

```
BEGIN
Get Desc[1000]
Display “Thankyou for your feedback”
END
```


CODE

MODULE 1: RESERVATION

```
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<time.h>
void reservation()
{
    FILE *f,*exp,*details,*bank;
    long int file_pos;
    int
c=0,s=0,temp_seat=0,date=0,i=0,total=0,j=0,k=0,m=0,count=0,sum=0,age=0,option=0,flag=0,t_
option=0,t_price=0,t_bal=0,passenger_id=0;
    char
p_train[13][15]={ },t_r[5]={ },temp_count[4]={ },password[5]={ },filename[50]={ },from[15]={ },t
o[15]={ },line[50][200]={ },temp_str[200]={ },express[15]={ },temp_from[15]={ },temp_to[15]={
 },seats[5]={ },depart_time[6]={ },arrival_time[6]={ };
    char
train[15]={ },name[15]={ },gender[3]={ },temp_option[2]={ },temp_price[5]={ },choice[3]={ },acc
ount_number[8]={ };
    Char
temp_account[9]={ },temp_pswd[5]={ },temp_bal[7]={ },p_id[50]={ },temp_totalseat[5]={ },str[1
5]={ },t_date[5]={ },t_month[5]={ },t_year[6]={ };
    float r=0;
    printf("\033[1;36mEnter the date of travel(dd/mm/yyyy)\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",str);
    printf("\033[0m");
    i=0;count=0;
    while(str[i]!='\n' && i<11)
    {
```

```

if(str[i]=='/')
{
if(count==0)
t_date[m]='\0';
else if(count==1)
t_month[m]='\0';
else if(count==2)
t_year[m]='\0';
m=0;
count+=1;
}
else
{
if(count==0)
t_date[m]=str[i];
else if(count==1)
t_month[m]=str[i];
else if(count==2)
t_year[m]=str[i];
m+=1;
}
i+=1;
}
t_year[m]='\0';
count=0;
sprintf(filename, "/home/rajee/Desktop/bootathon/%s/month%s/train      details      each
day/day%s.txt", t_year, t_month, t_date);
f=fopen(filename, "r");
printf("\033[1;36mEnter the starting location\n\033[0m");
printf("\033[1;32m");
scanf("%s", from);

```

```
printf("\033[0m");
printf("\033[1;36mEnter the destination\n\033[0m");
printf("\033[1;32m");
scanf("%s",to);
printf("\033[0m");
i=0;rewind(f);
while(fgets(line[i], sizeof(line[i]), f))
{
    line[i][strlen(line[i]) - 1] = '\0';
    i++;
}
total=i;j=0;k=0;m=0;count=0;
for(i=0;i<total;i++)
{
    m=0;k=0;j=0;
    strcpy(temp_str,line[i]);
    while(temp_str[k]!='$')
    {
        if(temp_str[k]==',')
        {
            if(j==0)
                express[m]='\0';
            else if(j==1)
                temp_from[m]='\0';
            else if(j==2)
                temp_to[m]='\0';
            else if(j==3)
                depart_time[m]='\0';
            else if(j==4)
                arrival_time[m]='\0';
            m=0;
```

```

j+=1;
}

else
{
    if(j==0)
        express[m]=temp_str[k];
    else if(j==1)
        temp_from[m]=temp_str[k];
    else if(j==2)
        temp_to[m]=temp_str[k];
    else if(j==5)
        seats[m]=temp_str[k];
    else if(j==3)
        depart_time[m]=temp_str[k];
    else if(j==4)
        arrival_time[m]=temp_str[k];
    m+=1;
}
k+=1;
}
seats[m]='\0';r=0;
if(!strcmp(temp_from,from) && !strcmp(temp_to,to))
{
    sprintf(filename,"/home/rajee/Desktop/bootathon/expressdetails/%s.txt",express);
    exp=fopen(filename,"r");flag=0;
    fgets(line[0],sizeof(line[0]),exp);
    while(line[0][flag]!='$')
    {
        t_r[flag]=line[0][flag];
        flag++;
    }
}

```

```

        t_r[flag]='\0';
        sscanf(t_r,"%f",&r);
        strcpy(p_train[count],express);
        flag=0;
        if(r!=0)
            printf("\n\033[1;36mTrain
Name:\033[0m\033[1;32m%s\033[0m\n\033[1;36mDepart
time:\033[0m\033[1;32m%s\033[0m\t\033[1;36mArrival
time:\033[0m\033[1;32m%s\033[0m\n\033[1;36mUser
Rating:\033[0m\033[1;32m%s\033[0m\t\033[1;36mAvailable
seats:\033[0m\033[1;32m%s\033[0m\n",express,depart_time,arrival_time,t_r,seats);
        else
            printf("\n\033[1;36mTrain
Name:\033[0m\033[1;32m%s\033[0m\n\033[1;36mDepart
time:\033[0m\033[1;32m%s\033[0m\t\033[1;36mArrival
time:\033[0m\033[1;32m%s\033[0m\n\033[1;36mUser
Rating:\033[0m\033[1;32m%c\033[0m\t\033[1;36mAvailable
seats:\033[0m\033[1;32m%s\033[0m\n",express,depart_time,arrival_time,'-',seats);

        count+=1;
    }
}
if(count==0)
{
    printf("\033[1;36mNo Trains Available\nThank you for your ccoperation!!\n\033[0m");
    return;
}
else
{
    printf("\n\033[1;36mThe      Number      of      trains      available      are\033[0m
\033[1;32m%d\033[0m\n",count);

```

```

printf("\n\033[1;36mEnter the name of your preferred train\n\033[0m");
printf("\033[1;32m");
scanf("%s",train);
printf("\033[0m");
for(i=0;i<count;i++)
{
    if(!strcmp(train,p_train[i]))
    {
        flag=1;
        break;
    }
}
if(flag==0)
{
    printf("\033[1;36mEnter a valid train\n\033[0m");
    return;
}
sprintf(filename,"/home/rajee/Desktop/bootathon/expressdetails/%s.txt",train);
exp=fopen(filename,"r");
sprintf(filename,"/home/rajee/Desktop/bootathon/%s/month%s/customer    details
each day/detail%s.txt",t_year,t_month,t_date);
details=fopen(filename,"a");
i=0;fseek(f,0,SEEK_SET);
while(fgets(line[i], sizeof(line[i]), f))
{
    line[i][strlen(line[i]) - 1] = '\0';
    i++;
}
total=i;j=0;k=0;m=0;count=0;
for(i=0;i<total;i++)
{

```

```
m=0;k=0;j=0;
strcpy(temp_str,line[i]);
while(temp_str[k]!='$')
{
    if(temp_str[k]==',')
    {
        if(j==0)
            express[m]='\0';
        else if(j==1)
            temp_from[m]='\0';
        else if(j==2)
            temp_to[m]='\0';
        else if(j==3)
            depart_time[m]='\0';
        else if(j==4)
            arrival_time[m]='\0';
        m=0;
        j+=1;
    }
    else
    {
        if(j==0)
            express[m]=temp_str[k];
        else if(j==1)
            temp_from[m]=temp_str[k];
        else if(j==2)
            temp_to[m]=temp_str[k];
        else if(j==5)
            seats[m]=temp_str[k];
        else if(j==3)
            depart_time[m]=temp_str[k];
```

```

        else if(j==4)
            arrival_time[m]=temp_str[k];
            m+=1;
        }
        k+=1;
    }
    seats[m]='\0';
    if(!strcmp(express,train))
    {
        sscanf(seats,"%d",&temp_seat);i=0;
        while(fgets(line[i], sizeof(line[i]), exp))
        {
            line[i][strlen(line[i]) - 1] = '\0';
            if(i==6)
            {
                strcpy(temp_str,line[i]);m=0;
                while(temp_str[m]!='$')
                {
                    temp_totalseat[m]=temp_str[m];
                    m+=1;
                }
                temp_totalseat[m]='\0';
                sscanf(temp_totalseat,"%d",&s);
                s=(s-temp_seat)+1;
                break;
            }
            i++;
        }
        break;
    }
}

```



```

        i=0;sum=0;count=0;
        do
        {
            if(temp_seat>0)
            {
                rewind(exp);
                printf("\033[1;36mEnter the name of passenger
%d\n\033[0m",count+1);

                printf("\033[1;32m");
                scanf("%s",name);
                printf("\033[0m");
                printf("\033[1;36mEnter the age of passenger
%d\n\033[0m",count+1);

                printf("\033[1;32m");
                scanf("%d",&age);
                printf("\033[0m");
                printf("\033[1;36mEnter your gender(M/F) of passenger
%d\n\033[0m",count+1);

                printf("\033[1;32m");
                scanf("%s",gender);
                printf("\033[0m");
                printf("\033[1;36m");
                fseek(exp,0,SEEK_SET);i=0;
                while(fgets(line[i], sizeof(line[i]), exp))
                {
                    line[i][strlen(line[i]) - 1] = '\0';
                    if(i>=1 && i<=4)
                    {
                        j=0;c=0;
                        while(line[i][j]!='$')
                        {

```

```

        if(line[i][j]=='')
        {
            c++;
            if(c<3)
                printf("%c",line[i][j]);
            else
                printf("%s","-Rs.");
        }
        else
            printf("%c",line[i][j]);

        j++;
    }
    printf("\n");
}
i++;
}
printf("\033[0m");
printf("\033[1;36mEnter any of the above options to book the respective
seat for passenger %d\n\033[0m",count+1);
printf("\033[1;32m");
scanf("%d",&option);
printf("\033[0m");
if(option<1 || option>4)
{
    printf("\033[1;36mEnter a valid option\n\033[0m");
    printf("\033[1;32m");
    scanf("%d",&option);
    printf("\033[0m");
}
total=i;j=0;k=0;
for(i=0;i<total;i++)

```

```

{
    if(i!=0 && i!=(total-1))
    {
        j=0;m=0;k=0;
        strcpy(temp_str,line[i]);
        while(temp_str[k]!='$')
        {
            if(temp_str[k]==',')
            {
                if(j==0)
                    temp_option[m]='\0';
                else if(j==3)
                    temp_price[m]='\0';

                m=0;
                j+=1;
            }
            else
            {
                if(j==0)
                    temp_option[m]=temp_str[k];
                else if(j==3)
                    temp_price[m]=temp_str[k];
                m+=1;
            }
            k+=1;
        }
        temp_price[m]='\0';
        sscanf(temp_option,"%d",&t_option);
        if(t_option==option)
        {

```

```

                                sscanf(temp_price,"%d",&t_price);
                                sum+=t_price;
                                break;
                                }
                                }
                                }
                                printf("\033[1;36m\nyour      seat      number      is\033[0m
\033[1;32m%d\033[0m\n",s);
                                if(count==0)

                                sprintf(p_id,"$%s,%d,%s,%d,%d",name,age,gender,s,t_price);
                                else

                                sprintf(p_id,"%s,%d,%s,%d,%d",name,age,gender,s,t_price);
                                fputs(p_id,details);
                                s++;
                                printf("\033[1;36m\nTo book another ticket Enter yes\n\033[0m");
                                printf("\033[1;32m");
                                scanf("%s",choice);
                                printf("\033[0m");
                                count+=1;
                                temp_seat-=1;
                                }
                                else
                                {
                                printf("\033[1;36mThe      train      is      occupied...No      more
seats\033[0m\n");
                                if(count>0)
                                {
                                printf("\033[1;36mDo you want to pay the amount for the
booked tickets\n\033[0m");

```

```

        printf("\033[1;32m");
        scanf("%s",choice);
        printf("\033[0m");
        if(strcmp(choice,"yes"))
        {
            printf("\033[1;36mThank    you    for    your
cooperation\n\033[0m");

            return;
        }
        break;
    }
    else
    {
        return;
    }
}
}while(!strcmp(choice,"yes"));
printf("\033[1;36m\nThe    total    amount    to    be    paid    is\033[0m
\033[1;32m%d\033[0m\n",sum);
printf("\033[1;36m\nDo you like to pay through online\n\033[0m");
printf("\033[1;32m");
scanf("%s",choice);
printf("\033[0m");
i=0;
if(!strcmp(choice,"yes"))
{
    bank=fopen("/home/rajee/Desktop/bootathon/bank
accounts/accountdetails.txt","rw");
    while(fgets(line[i], sizeof(line[i]), bank))
    {
        line[i][strlen(line[i]) - 1] = '\0';

```

```

        i++;
    }
    total=i;flag=0;

    printf("\033[1;36mEnter your account number\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",account_number);
    printf("\033[0m");
    printf("\033[1;36mEnter the password\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",password);
    printf("\033[0m");
    for(i=0;i<total;i++)
    {
        j=0;m=0;k=0;
        strcpy(temp_str,line[i]);
        while(temp_str[k]!='$')
        {
            if(temp_str[k]==',')
            {
                if(j==0)
                    temp_account[m]='\0';
                else if(j==1)
                    temp_pswd[m]='\0';
                j+=1;
                m=0;
            }
            else
            {
                if(j==0)
                    temp_account[m]=temp_str[k];
                else if(j==1)

```

```

        temp_pswd[m]=temp_str[k];
    else if(j==2)
        temp_bal[m]=temp_str[k];
        m+=1;
    }
    k+=1;
}
temp_bal[m]='\0';
sscanf(temp_bal,"%d",&t_bal);
if(!strcmp(temp_account,account_number)                &&
!strcmp(temp_pswd,password))
{
    if(t_bal>sum)
    {
        t_bal-=sum;
        printf("\033[1;36mYour Account Balance after deducting
the amount:\033[0m\033[1;32m%d\033[0m\n",t_bal);
        flag=1;
    }
    else
    {
        printf("\033[1;36mYour account balance is not sufficient to
pay the amount\n");

        printf("Your tickets are under waiting list\n\033[0m");
        sprintf(p_id,"%s,%s#\n","-999",train);
        fputs(p_id,details);
        return;
    }
    break;
}
}

```



```

        temp_account[m]=temp_str[k];
    else if(j==1)
        temp_pswd[m]=temp_str[k];
    m+=1;
}
k+=1;
}

if(!strcmp(account_number,temp_account)      &&
!strcmp(password,temp_pswd))
{

    sprintf(p_id,"%s,%s,%d$",account_number,password,t_bal);
    fseek(bank,file_pos,SEEK_SET);

    fputs(p_id,bank);

    break;
}

k++;
i++;
file_pos=ftell(bank);
}

printf("\033[1;36mSuccessfully  \033[1;32mRs.%.2f\033[0m  had
been deducted from your account\033[0m\n\033[1;36mThe passenger id of yours
:\033[0m\033[1;32m%d\033[0m\n", (float)sum,passenger_id);

    sprintf(filename, "/home/rajee/Desktop/bootathon/%s/month%s/train    details    each
day/day%s.txt",t_year,t_month,t_date);

    f=freopen(filename,"r+",f);
    file_pos=ftell(f);i=0;
    while(fgets(line[i], sizeof(line[i]), f))

```

```

    {
line[i][strlen(line[i]) - 1] = '\0';
strcpy(temp_str,line[i]);
j=0,m=0,k=0;
while(temp_str[k]!='$')
{
    if(temp_str[k]==',')
    {
        if(j==0)
            express[m]='\0';
        else if(j==1)
            temp_from[m]='\0';
        else if(j==2)
            temp_to[m]='\0';

        else if(j==3)
            depart_time[m]='\0';
        else if(j==4)
            arrival_time[m]='\0';
        m=0;
        j+=1;
    }
    else
    {
        if(j==0)
            express[m]=temp_str[k];
        else if(j==1)
            temp_from[m]=temp_str[k];
        else if(j==2)
            temp_to[m]=temp_str[k];
        else if(j==5)

```

```

                seats[m]=temp_str[k];
            else if(j==3)
                depart_time[m]=temp_str[k];
            else if(j==4)
                arrival_time[m]=temp_str[k];

            m+=1;
        }
        k+=1;
    }
    seats[m]='\0';
    sscanf(seats,"%d",&temp_seat);
    temp_seat-=count;

    if(!strcmp(train,express) && !strcmp(from,temp_from) &&
!strcmp(to,temp_to))
    {

        sprintf(p_id,"%s,%s,%s,%s,%s,%d$",express,temp_from,temp_to,depart_time,arrival_t
me,temp_seat);

        fseek(f,file_pos,SEEK_SET);

        fputs(p_id,f);
        break;
    }
    i++;file_pos=ftell(f);
}
}
else if(flag==0)
{
    fputs("#\n",details);
    printf("\033[1;36mInvalid account number/password\033[0m\n");
}

```

```

        fclose(bank);
    }
    else
    {
        sprintf(p_id,"%s,%s#\n","-999",train);
        fputs(p_id,details);
        printf("\033[1;36mYour tickets are under waiting list\n\033[0m");
    }

}

fclose(f);
fclose(exp);
fclose(details);
return;
}

```

MODULE II:CONFIRMATION

```

#include<stdio.h>
#include<stdlib.h>
#include<string.h>
void confirmation()
{
    FILE *f;
    int date=0,i=0,j=0,m=0,count=0,total=0,a=0,flag=0,x=0,k=0,temp=0;
    char
filename[100]={ },id[20]={ },train[20]={ },line[15][200]={ },temp_str[200]={ },temp_train[20]={ }
,temp_id[20]={ },str[20]={ };
    char t_date[10]={ },t_month[10]={ },t_year[10]={ },t_id[20]={ },t_train[20]={ };
    printf("\033[1;36mEnter the date of travel(dd/mm/yyyy)\n\033[0m");
    printf("\033[1;32m");
}

```

```
scanf("%s",str);
printf("\033[0m");
while(str[i]!='\n' && i<11)
{
    if(str[i]=='/')
    {
        if(count==0)
            t_date[m]='\0';
        else if(count==1)
            t_month[m]='\0';
        else if(count==2)
            t_year[m]='\0';
        m=0;
        count++;
    }
    else
    {
        if(count==0)
            t_date[m]=str[i];
        else if(count==1)
            t_month[m]=str[i];
        else if(count==2)
            t_year[m]=str[i];
        m++;
    }
    i++;
}
t_year[m]='\0';
i=0;count=0;

printf("\033[1;36mEnter the passenger id\n\033[0m");
printf("\033[1;32m");
```

```

scanf("%s",id);
printf("\033[0m");
printf("\033[1;36mEnter the train name\n\033[0m");
printf("\033[1;32m");
scanf("%s",train);
printf("\033[0m");
sprintf(filename, "/home/rajee/Desktop/bootathon/%s/month%s/customer      details      each
day/detail%s.txt", t_year, t_month, t_date);
f=fopen(filename, "r");
i=0;
while(fgets(line[i], sizeof(line[i]), f))
{
line[i][strlen(line[i]) - 1] = '\0';
i++;
}
count=0; total=i; flag=0;
for(i=0; i<total; i++)
{
temp_id[0]='\0';
strcpy(temp_str, line[i]);
if(line[i][strlen(line[i])-1]=='$')
{
j=strlen(line[i])-2; count=0; m=0;
while(count<2)
{
if(temp_str[j]==' ')
{
if(count==0)
temp_train[m]='\0';
else if(count==1)
temp_id[m]='\0';

```

```

        count+=1;
        m=0;
    }
    else
    {
        if(count==0)
            temp_train[m]=temp_str[j];
        if(count==1)
            temp_id[m]=temp_str[j];
        m+=1;
    }
    j-=1;
}
a=strlen(temp_train)-1;
for(j=0;j<strlen(temp_train) && a>=0;j++)
{
    t_train[j]=temp_train[a];
    a-=1;
}
a=strlen(temp_id)-1;
for(j=0;j<strlen(temp_id) && a>=0;j++)
{
    t_id[j]=temp_id[a];
    a-=1;
}
t_id[strlen(temp_id)]='\0';
if(!strcmp(t_id,id) && !strcmp(t_train,train))
{
    temp=1;
    for(x=0;x<48;x++)
    {

```

```

        printf(" ");
    }
    printf("\033[1;36mYours tickets are confirmed!!\033[0m\n");
    for(x=0;x<53;x++)
    {
        printf(" ");
    }
    printf("\033[1;36mPASSENGER DETAILS\033[0m\n");
    for(x=0;x<30;x++)
    {
        printf(" ");
    }
    printf("\033[1;36m%-6s%-15s%-6s%-10s%-
15s%s\033[0m","S.No","Name","Age","Gender","Seat No","Ticket Price");
    j=1;
    while(temp_str[j]!='$')
    {
        if(temp_str[j]==',')
            k+=1;
        j++;
    }
    k=k-6;j=1;count=0;
    while(temp_str[j]!='$' && count<k)
    {
        if(temp_str[j]==',')
        {
            count+=1;
            j+=1;
        }
        else
        {

```



```

if(count%5==0)
{
    printf("\n");
    for(x=0;x<30;x++)
        printf(" ");
    printf("\033[1;32m%d\033[0m",(count/4)+1);
    for(x=0;x<5;x++)
        printf(" ");
    printf("\033[1;32m");
    m=0;
    while(temp_str[j]!=';')
    {
        printf("%c",temp_str[j]);
        j+=1;m+=1;
    }
    printf("\033[0m");
    for(x=0;x<15-m;x++)
        printf(" ");
}
else if(count%5==1)
{
    printf("\033[1;32m");
    m=0;
    while(temp_str[j]!=';')
    {
        printf("%c",temp_str[j]);
        j+=1;m+=1;
    }
    printf("\033[0m");
    for(x=0;x<6-m;x++)
        printf(" ");
}

```

```

    }
else if(count%5==2)
{
    printf("\033[1;32m");
    m=0;
    while(temp_str[j]!=';')
    {
        printf("%c",temp_str[j]);
        j+=1;m+=1;
    }
    printf("\033[0m");
    for(x=0;x<10-m;x++)
        printf(" ");
}
else if(count%5==3)
{
    printf("\033[1;32m");
    m=0;
    while(temp_str[j]!=';')
    {
        printf("%c",temp_str[j]);
        j+=1;m+=1;
    }
    printf("\033[0m");
    for(x=0;x<15-m;x++)
        printf(" ");
}
else if(count%5==4)
{
    printf("\033[1;32m");
    m=0;

```

```

        while(temp_str[j]!=';')
        {
            printf("%c",temp_str[j]);
            j+=1;m+=1;
        }
        printf("\033[0m");
    }
}

printf("\n");
for(x=0;x<81;x++)
    printf(" ");
printf("-----\n");
for(x=0;x<67;x++)
    printf(" ");
printf("\033[1;36mTotal amount  \033[0m");
printf("\033[1;32m");
while(temp_str[j]!=';' && temp_str[j]!='$')
{
    printf("%c",temp_str[j]);
    j++;
}
printf("\033[0m");
printf("\n");
for(x=0;x<81;x++)
    printf(" ");
printf("-----\n");
}
}
}

if(temp!=1)

```

```

        printf("\033[1;36mYour tickets are not yet confirmed\n\033[0m");
fclose(f);

    return;
}

```

MODULE III: CANCELLATION

```

#include<stdio.h>
#include<stdlib.h>
#include<string.h>
void cancellation()
{
    FILE *f,*day,*bank;
    long int file_pos;
    int
    t_sum=0,t_bal=0,t_count=0,date=0,i=0,total=0,flag=0,j=0,m=0,a=0,count=0,k=0,temp_seat=0;
    char
    temp_ex[15]={ },filename[70]={ },line[20][200]={ },id[15]={ },train[15]={ },temp_str[200]={ },te
    mp_train[15]={ },temp_id[15]={ },str[20]={ };
    char
    seats[5]={ },p_id[100]={ },depart_time[7]={ },arrival_time[7]={ },express[15]={ },temp_sum[6]={
    },temp_count[3]={ },temp_accountno[10]={ },temp_from[15]={ },temp_to[15]={ },from[15]={ },t
    o[15]={ };
    char
    temp_account[10]={ },temp_pswd[6]={ },temp_bal[6]={ },t_year[10]={ },t_month[10]={ },t_date[
    10]={ };

    printf("\033[1;36mEnter the date of travel(dd/mm/yyyy)\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",str);
    printf("\033[0m");
    i=0;count=0;m=0;
    while(str[i]!='\n' && i<11)

```

```

{
    if(str[i]=='/')
    {
        if(count==0)
            t_date[m]='\0';
        else if(count==1)
            t_month[m]='\0';
        else if(count==2)
            t_year[m]='\0';
        m=0;
        count++;
    }
    else
    {
        if(count==0)
            t_date[m]=str[i];
        else if(count==1)
            t_month[m]=str[i];
        else if(count==2)
            t_year[m]=str[i];
        m++;
    }
    i++;
}
t_year[m]='\0';
i=0;count=0;
sprintf(filename,"/home/rajee/Desktop/bootathon/%s/month%s/train      details      each
day/day%s.txt",t_year,t_month,t_date);
day=fopen(filename,"r+");
printf("\033[1;36mEnter the passenger id\n\033[0m");
printf("\033[1;32m");

```

```

scanf("%s",id);
printf("\033[0m");
printf("\033[1;36mEnter the train\n\033[0m");
printf("\033[1;32m");
scanf("%s",train);
printf("\033[0m");

sprintf(filename, "/home/rajee/Desktop/bootathon/%s/month%s/customer details each
day/detail%s.txt", t_year, t_month, t_date);

f=fopen(filename, "r+");
fseek(f, 0, SEEK_SET);
i=0; file_pos=ftell(f);
while(fgets(line[i], sizeof(line[i]), f))
{
if(line[i][strlen(line[i])-1]=='$')
{
temp_id[0]='\0';
temp_ex[0]='\0';
j=0;
line[i][strlen(line[i]) - 1] = '\0';
strcpy(temp_str, line[i]);
j=(int)(strlen(temp_str))-1;
count=0;
while(count<7)
{
if(temp_str[j]==' ')
count++;

j-=1;
}
j+=2;
k=0; m=0;
while(temp_str[j]!='$')

```

```
{
    if(temp_str[j]=='')
    {
        if(k==0)
            temp_sum[m]='\0';
        else if(k==1)
            temp_count[m]='\0';
        else if(k==2)
            temp_accountno[m]='\0';
        else if(k==3)
            temp_from[m]='\0';
        else if(k==4)
            temp_to[m]='\0';
        else if(k==5)
            temp_id[m]='\0';
        else if(k==6)
            temp_ex[m]='\0';
        k+=1;
        m=0;
    }
    else
    {
        if(k==0)
            temp_sum[m]=temp_str[j];
        else if(k==1)
            temp_count[m]=temp_str[j];
        else if(k==2)
            temp_accountno[m]=temp_str[j];
        else if(k==3)
            temp_from[m]=temp_str[j];
        else if(k==4)
```

```

        temp_to[m]=temp_str[j];
    else if(k==5)
        temp_id[m]=temp_str[j];
    else if(k==6)
        temp_ex[m]=temp_str[j];
    m+=1;
}
j+=1;
}
temp_ex[m]='\0';
printf("%s %s %s %s\n",temp_id,id,temp_ex,train);
if(!strcmp(temp_id,id) && !strcmp(temp_ex,train))
{
    temp_str[strlen(temp_str)-1]='#';
    fseek(f,file_pos,SEEK_SET);
    fputs(temp_str,f);
    printf("\033[1;36mYour tickets are cancelled successfully\n\033[0m");
    flag=1;
    break;
}
i++;
file_pos=ftell(f);
}
}
if(flag==1)
{
    file_pos=ftell(day);i=0;
    while(fgets(line[i], sizeof(line[i]), day))
    {
        line[i][strlen(line[i]) - 1] = '\0';
        strcpy(temp_str,line[i]);
    }
}

```



```
j=0,m=0,k=0;
while(temp_str[k]!='$')
{
    if(temp_str[k]==',')
    {
        if(j==0)
            express[m]='\0';
        else if(j==1)
            from[m]='\0';
        else if(j==2)
            to[m]='\0';
        else if(j==3)
            depart_time[m]='\0';
        else if(j==4)
            arrival_time[m]='\0';
        m=0;
        j+=1;
    }
    else
    {
        if(j==0)
            express[m]=temp_str[k];
        else if(j==1)
            from[m]=temp_str[k];
        else if(j==2)
            to[m]=temp_str[k];
        else if(j==5)
            seats[m]=temp_str[k];
        else if(j==3)
            depart_time[m]=temp_str[k];
        else if(j==4)
```

```

        arrival_time[m]=temp_str[k];
        m+=1;
    }
    k+=1;
}
seats[m]='\0';
if(!strcmp(temp_ex,express) && !strcmp(from,temp_from) && !strcmp(to,temp_to))
{
    sscanf(seats,"%d",&temp_seat);
    sscanf(temp_count,"%d",&t_count);

sprintf(p_id,"%s,%s,%s,%s,%s,%d$",express,temp_from,temp_to,depart_time,arrival_time,temp
_seat+t_count);
    fseek(day,file_pos,SEEK_SET);
    fputs(p_id,day);
    break;
}
i++;file_pos=ftell(day);
}
i=0;
bank=fopen("/home/rajee/Desktop/bootathon/bank accounts/accountdetails.txt","r+");
file_pos=ftell(bank);
while(fgets(line[i], sizeof(line[i]), bank))
{
    line[i][strlen(line[i]) - 1] = '\0';
    strcpy(temp_str,line[i]);
    j=0,m=0,k=0;
    while(temp_str[k]!='$')
    {
        if(temp_str[k]=='(')
        {

```

```

        if(j==0)
            temp_account[m]='\0';
        else if(j==1)
            temp_pswd[m]='\0';
        m=0;
        j+=1;
    }
    else
    {
        if(j==0)
            temp_account[m]=temp_str[k];
        else if(j==1)
            temp_pswd[m]=temp_str[k];
        else if(j==2)
            temp_bal[m]=temp_str[k];
        m+=1;
    }
    k+=1;
}
if(!strcmp(temp_accountno,temp_account))
{
    sscanf(temp_sum,"%d",&t_sum);
    sscanf(temp_bal,"%d",&t_bal);
    sprintf(p_id,"%s,%s,%d$",temp_accountno,temp_pswd,t_bal+t_sum);
    fseek(bank,file_pos,SEEK_SET);
    fputs(p_id,bank);
    break;
}
i++;file_pos=ftell(bank);
}
}

```

```

        fclose(bank);
        fclose(day);
        fclose(f);
        return;
    }

```

MODULE V:QUERY

```

#include<stdio.h>
#include<stdlib.h>
#include<string.h>
void query()
{
    FILE *f,*exp,*det;
    long int file_pos;
    int id=0,count=0,date=0,rating=0,m=0,i=0,flag=0,k=0,j=0,x=0,a=0;
    char
filename[100]={ },train[20]={ },line[15][200]={ },temp_str[200]={ },temp_rating[20]={ },temp_co
unt[20]={ },t_id[20]={ },tt_id[20]={ },q[30]={ },str[30]={ };
    char t_date[20]={ },t_month[20]={ },t_year[20]={ },temp_id[20]={ };
    float temp_r,temp;
    printf("\033[1;36mEnter the date of travel(dd/mm/yyyy)\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",str);
    printf("\033[0m");
    i=0;count=0;
    while(str[i]!='\n' && i<11)
    {
        if(str[i]=='/')
        {
            if(count==0)
                t_date[m]='\0';

```

```

        else if(count==1)
            t_month[m]='\0';
        else if(count==2)
            t_year[m]='\0';
        m=0;
        count+=1;
    }
    else
    {
        if(count==0)
            t_date[m]=str[i];
        else if(count==1)
            t_month[m]=str[i];
        else if(count==2)
            t_year[m]=str[i];
        m+=1;
    }
    i+=1;
}
t_year[m]='\0';
i=0;count=0;

    printf(filename,"/home/rajee/Desktop/bootathon/%s/month%s/customer queries each day
/query%s.txt",t_year,t_month,t_date);

    f=fopen(filename,"a");
    printf(filename,"/home/rajee/Desktop/bootathon/%s/month%s/customer details each
day/detail%s.txt",t_year,t_month,t_date);
    det=fopen(filename,"r");
    printf("\033[1;36mEnter the passenger id\n\033[0m");
    printf("\033[1;32m");
    scanf("%s",temp_id);
    printf("\033[0m");

```

```

printf("\033[1;36mEnter the train name\n\033[0m");
printf("\033[1;32m");
scanf("%s",train);
printf("\033[0m");
sprintf(filename,"/home/rajee/Desktop/bootathon/expressdetails/%s.txt",train);
exp=fopen(filename,"r+");
printf("\033[1;36mEnter the rating out of 5\n\033[0m");
printf("\033[1;32m");
scanf("%d",&rating);
printf("\033[0m");
printf("\033[1;36mEnter your query on your travel\n\033[0m");
printf("\033[1;32m");
scanf("\n%[^\\n]s",q);
printf("\033[0m");
flag=0;i=0;fseek(det,0,SEEK_SET);
while(fgets(line[i],sizeof(line[i]),det))
{
    line[i][strlen(line[i])-1] = '\0';
    if(line[i][strlen(line[i])-1]=='$')
    {
        strcpy(temp_str,line[i]);
        j=(int)((strlen(temp_str))-2);
        k=0;m=0;
        while(temp_str[j]!='$')
        {
            if(temp_str[j]==',')
            {
                if(k==1)
                    t_id[m]='\0';
                k+=1;
                m=0;
            }
        }
    }
}

```

```

        }
        else
        {
            if(k==1)
                t_id[m]=temp_str[j];
            m+=1;
        }
        j-=1;
    }
    a=strlen(t_id)-1;
    for(x=0;x<strlen(t_id) && a>=0;x++)
    {
        tt_id[x]=t_id[a];
        a-=1;
    }
    if(!strcmp(tt_id,temp_id))
    {
        flag=1;
        break;
    }
}

i++;
}

if(flag==0)
{
    printf("\033[1;36mPlease enter a valid passenger id\n\033[0m");
    printf("\033[1;36mYour query is not updated\n\033[0m");
    return;
}
else
{

```

```

        sprintf(temp_str, "%s,%s,%d,%s,%s$\n", t_date, temp_id, rating, train, q);
        fputs(temp_str, f);
        i=0; file_pos=ftell(exp);
        while(fgets(line[i], sizeof(line[i]), exp))
        {
if(i==5)
{
    line[i][strlen(line[i]) - 1] = '\0';
    strcpy(temp_str, line[i]); m=0;
    while(temp_str[m]!='$')
    {
        temp_count[m]=temp_str[m];
        m+=1;
    }
    sscanf(temp_count, "%d", &count);
    count+=1;
    fseek(exp, file_pos, SEEK_SET);
    sprintf(temp_count, "%d$", count);
    fputs(temp_count, exp);
    break;
}
        i++;
        file_pos=ftell(exp);
    }

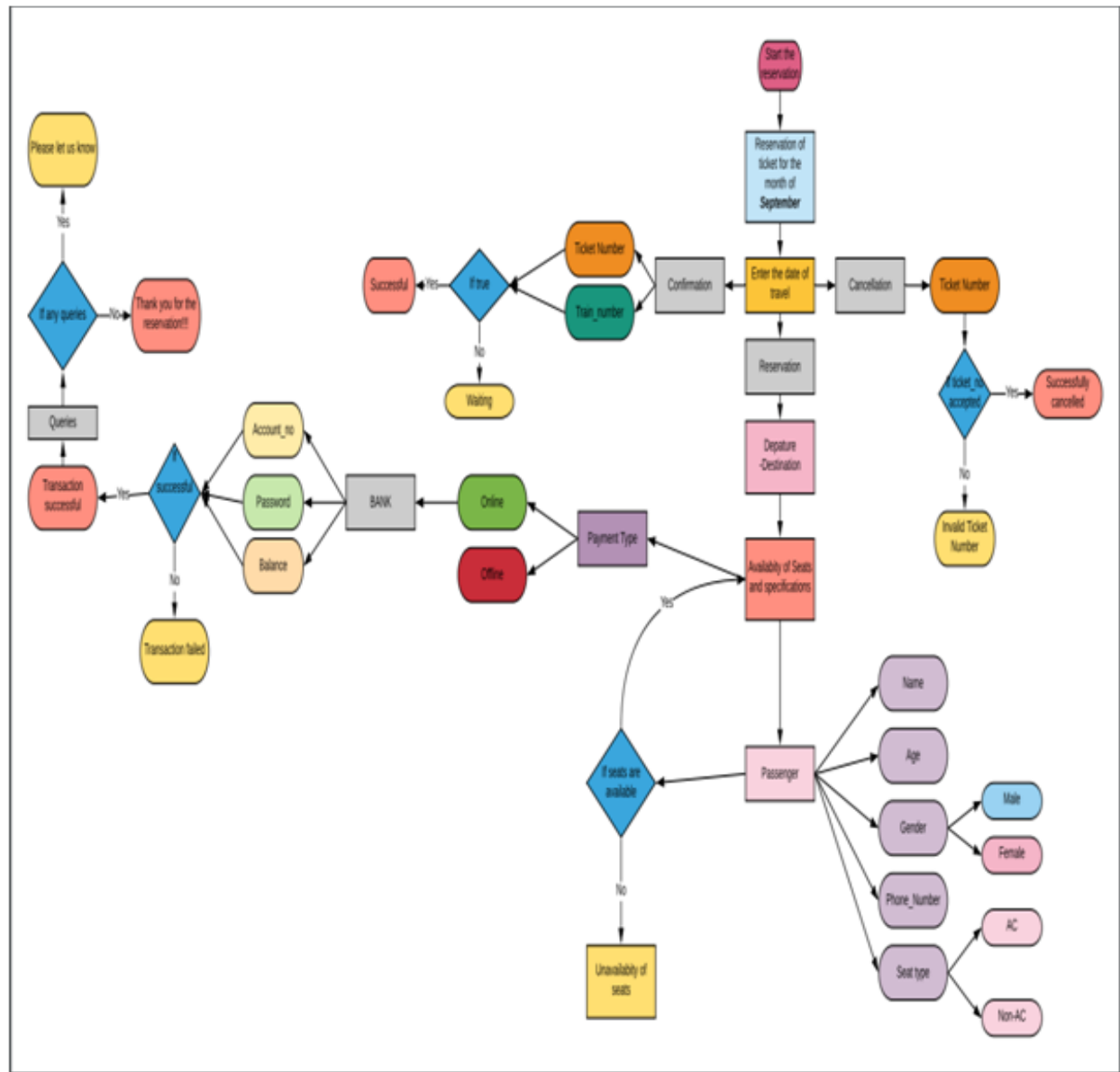
    i=0; fseek(exp, 0, SEEK_SET);
    while(fgets(line[i], sizeof(line[i]), exp))
    {
if(i==0)
{
    line[i][strlen(line[i]) - 1] = '\0';
    strcpy(temp_str, line[i]); m=0;

```



```
        while(temp_str[m]!='$')
        {
            temp_rating[m]=temp_str[m];
            m+=1;
        }
    }
    i++;
}
sscanf(temp_rating,"%f",&temp_r);
temp=(temp_r+rating)/count;
fseek(exp,0,SEEK_SET);
sprintf(temp_rating,"% .1f$ ",temp);
fputs(temp_rating,exp);
printf("\033[1;36mSuccessfully updated the query\n\033[0m");
}
fclose(det);
fclose(exp);
fclose(f);
return;
}
```

FLOWCHART



QUALITY ASSURANCE-TEST CASES

MODULE	TESTCASE	REMARKS	STATUS
RESERVATION	DEPARTURE TO DESTINATION	AVAILABLE	PASSED
RESERVATION	NO_OF_SEATS> SEATS ALLOCATED	SEAT EXCEEDS	PASSED
RESERVATION	AGE>60	CONCESSION AVAIL	PASSED
RESERVATION	AGE<60	CONCESSION NOT AVAIL	PASSED
BANKING	PASSWORD 2222	NOT ACCEPTED	PASSED
BANKING	MINIMUM AMOUNT<TICKET AMOUNT	NOT ACCEPTED	PASSED
BANKING	ACCOUNT NUMBER bbbbbbbb	ACCEPTED	PASSED
BANKING	ACCOUNT NUMBER abcdefgh	NOT ACCEPTED	PASSED
BANKING	PASSWORD 1745	ACCEPTED	PASSED
CONFIRMATIO N	PNR ==VALUE	ACCEPTED	PASSED
CONFIRMATIO N	PNR !=VALUE	INVALID ENTRY	PASSED
CONFIRMATIO N	TRAIN NAME==VALID	ACCEPTED	PASSED
CANCELLATIO N	PNR==VALUE	TICKET CANCELLED	PASSED
6CANCELLATIO N	PNR !=VALUE	INVALID ENTRY	PASSED
CUSTOMER QUERY	PNR !=VALID	NOTACCEPTED	PASSED
CUSTOMER QUERY	TRAIN NAME==VALID	ACCEPTED	PASSED
CUSTOMER QUERY	TRAIN NAME!=VALID	NOT ACCEPTED	PASSED
CUSTOMER QUERY	PNR==VALID	ACCEPTED	PASSED

OUTPUT SCREEN SHOTS

MODULE I: RESERVATION

```
rajee@rajee-Latitude-E5440: ~/Documents/mel/programs
rajee@rajee-Latitude-E5440:~$ cd Documents/mel/programs
rajee@rajee-Latitude-E5440:~/Documents/mel/programs$ cc main.c
rajee@rajee-Latitude-E5440:~/Documents/mel/programs$ ./a.out

Railway Reservation System
powered by TECHSQUAD

Enter an option
1)Reservation 2)Confirmation 3)Cancellation 4)Passenger Query
1
Enter the date of travel(dd/mm/yyyy)
05/09/2019
Enter the starting location
coimbatore
Enter the destination
chennai

Train Name:express1
Depart time:10.00      Arrival time:18.40
User Rating:1.9 Available seats:198

Train Name:express5
Depart time:8.00       Arrival time:15.40
User Rating:- Available seats:200

The Number of trains available are 2

Enter the name of your preferred train
express5
Enter the name of passenger 1
Dhoni
Enter the age of passenger 1
40
Enter your gender(M/F) of passenger 1
M
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 1
2
```

```
rajee@rajee-Latitude-E5440: ~/Documents/mel/programs
Enter any of the above options to book the respective seat for passenger 1
2
your seat number is 1

To book another ticket Enter yes
yes
Enter the name of passenger 2
Virat
Enter the age of passenger 2
30
Enter your gender(M/F) of passenger 2
M
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 2
2
your seat number is 2

To book another ticket Enter yes
yes
Enter the name of passenger 3
Bumhra
Enter the age of passenger 3
26
Enter your gender(M/F) of passenger 3
M
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 3
2
your seat number is 3

To book another ticket Enter yes
no
```

```
rajee@rajee-Latitude-E5440: ~/Documents/mei/programs
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 2
2
your seat number is 2
To book another ticket Enter yes
yes
Enter the name of passenger 3
Bumhra
Enter the age of passenger 3
26
Enter your gender(M/F) of passenger 3
M
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 3
2
your seat number is 3
To book another ticket Enter yes
no
The total amount to be paid is 4200
Do you like to pay through online
yes
Enter your account number
XXXXXXXXXX
Enter the password
1234
Your Account Balance after deducting the amount:5800
Successfully Rs.4200.00 had been deducted from your account
The passenger id of yours :1085692059
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$
```

MODULE II: CONFIRMATION

```
rajee@rajee-Latitude-E5440: ~/Documents/mei/programs
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$ cc main.c
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$ ./a.out

Railway Reservation System
powered by TECHSQUAD

Enter an option
1)Reservation 2)Confirmation 3)Cancellation 4)Passenger Query
2
Enter the date of travel(dd/mm/yyyy)
05/09/2019
Enter the passenger id
1085692059
Enter the train name
express5

Yours tickets are confirmed!!
PASSENGER DETAILS


| S.No         | Name   | Age | Gender | Seat No | Ticket Price |
|--------------|--------|-----|--------|---------|--------------|
| 1            | Dhoni  | 40  | M      | 1       | 1400         |
| 2            | Virat  | 30  | M      | 2       | 1400         |
| 3            | Bumhra | 26  | M      | 3       | 1400         |
| Total amount |        |     |        |         | 4200         |


rajee@rajee-Latitude-E5440:~/Documents/mei/programs$
```

MODULE III: CANCELLATION

```
rajee@rajee-Latitude-E5440: ~/Documents/mei/programs
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$ cc main.c
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$ ./a.out

Railway Reservation System
powered by TECHSQUAD

Enter an option
1)Reservation 2)Confirmation 3)Cancellation 4)Passenger Query
3
Enter the date of travel(dd/mm/yyyy)
05/09/2019
Enter the passenger id
1085692059
Enter the train
express5
Your tickets are cancelled successfully
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$
```

MODULE IV: BANKING

```
rajee@rajee-Latitude-E5440: ~/Documents/mei/programs
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 2
2
your seat number is 2
To book another ticket Enter yes
yes
Enter the name of passenger 3
Bumhra
Enter the age of passenger 3
26
Enter your gender(M/F) of passenger 3
M
1,ac,seater-Rs.1000
2,ac,sleeper-Rs.1400
3,nonac,seater-Rs.880
4,nonac,sleeper-Rs.1000
Enter any of the above options to book the respective seat for passenger 3
2
your seat number is 3
To book another ticket Enter yes
no
The total amount to be paid is 4200
Do you like to pay through online
yes
Enter your account number
XXXXXXXXXX
Enter the password
1234
Your Account Balance after deducting the amount:5800
Successfully Rs.4200.00 had been deducted from your account
The passenger id of yours :1085692059
rajee@rajee-Latitude-E5440:~/Documents/mei/programs$
```

MODULE V:QUERY

```
rajee@rajee-Latitude-E5440: ~/Documents/mel/programs
rajee@rajee-Latitude-E5440:~/Documents/mel/programs$ cc main.c
rajee@rajee-Latitude-E5440:~/Documents/mel/programs$ ./a.out

Railway Reservation System
powered by TECHSQUAD

Enter an option
1)Reservation 2)Confirmation 3)Cancellation 4)Passenger Query
4
Enter the date of travel(dd/mm/yyyy)
05/09/2019
Enter the passenger id
1085692059
Enter the train name
express5
Enter the rating out of 5
4
Enter your query on your travel
good travel experience
Successfully updated the query
rajee@rajee-Latitude-E5440:~/Documents/mel/programs$
```

COMPLEXITY

The complexity for the required outputs are in the order of $O(n^2)$.

$O(N^2)$ — Quadratic Time:

Quadratic Time Complexity represents an algorithm whose performance is directly proportional to the squared size of the input data set (think of Linear, but squared). Within our programs, this time complexity will occur whenever we nest over multiple iterations within the data sets.

CONCLUSION

The project entitled "RAILWAY RESERVATION" was successfully executed by following step by step implementation of modules . The system replaces existing with more features like online setup , user can give his/her Review , the Operations and updates are done in a automatic manner etc . The future extensions can be made to provide more option in this application.

FUTURE ENHANCEMENT

The possibilities for innovations and development are more in this field . We can say some features like linking and integration of other online websites , in the area of data security and system security , connection to third party OLAP applications etc .

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