CONTENTS

1. SYSTEM DESCRIPTION

The “AIRLINE TICKET BOOKING SOFTWARE” is broadly divided into 2 categories:

- Booking of tickets.
- Cancelling of the pre-booked tickets.
- Displaying the pre-booked tickets.

Our aim is to make a computer program which deals with the entire process of domestic airline ticket booking and also allows the user to cancel the tickets after he/she has already booked the tickets. Each ticket is given a booking number as a key field which can be used to change the details of his booking.

a) FILES: There are two files for storing the booking details:
   - “ticket.txt”- This file is for storing the booking & flight details of the ticket.
   - “pass.txt”- This file is for storing the information of the passengers travelling.

b) INPUTS:
   - Destination and departure city of the passenger.
   - Number of passengers travelling.
   - Departure date of the passenger.
   - Personal details of the passenger i.e. Name of each passenger.
   - Contact information of the passenger booking the ticket.

c) OUTPUTs: It is a menu driven system, where
   - Option 1 - This for booking tickets, where you can choose your own airlines from 5 different options.

- Option 2 - This for displaying the pre-booked tickets, by providing your travel code.
- Option 3 - This is for cancelling any pre-booked tickets by providing your travel code.
- Option 4 – This is for exiting the system.

REQUIREMENT ANALYSIS

We have studied the existing system in detail. The findings of our study yield various pieces of information which are described in the following manner. For booking tickets and other related operations on them, we need to enter the following information-

- Travel Code
- Departure city
- Arrival city
- Date of Departure
- Number of passengers
- Details of the passengers
- Contact Information

The system is required to calculate the following details and print the ticket after the above details are entered by the user-

- Fare of each passenger
- Total fare for the chosen airline
- Time of the flight
- Travel Code
- Flight Number
- Final Ticket

REQUIRED OUTPUT OF THE SYSTEM

The computerized system generates the following reports as:

1. The system should be able to allow to generate and display tickets of each passenger registered with our airline for a trip.
2. Record of all the details of all the passengers who book tickets using our program.

HARDWARE AND SOFTWARE REQUIREMENTS

SOFTWARE-Turbo C++ Version 3.0, DOS 3.31 or higher

HARDWARE- IBM PC compatible family of computers, including the AT and PS/2, along with all true IBM compatible 286,386 or 486 computers with about 250 MB hard disk, a floppy/cd/pen drive, and at least 640K plus 1MB of extended memory; it runs on any 80-column monitor.

The Turbo C++ for Windows IDE requires protected mode Windows 3.0 or higher, at least 2MB of extended memory and a Windows compatible

monitor).

Turbo C++ includes floating-point routines that let your programs make use of an 80x87 math coprocessor chip. It emulates the chip if it is not available. Though it is not required to run Turbo C++, the 80x87 chip can significantly enhance the performance of your programs that use floating point math operations.

Turbo C++ also supports (but does not require) any Windows compatible

mouse.

We would suggest that the choice of computer should be at least 486 or equivalent with about 250 MB Hard disk and about 8 to 16 MB RAM for our system.

DATA DICTIONARY

FILE DESIGN STRUCTURE

- Data members of class ticket details:

No	Field Name	Type	Size	Data Description
1.	no_of_pass	int	2	No. of passengers travelling
2.	day	int	2	The day of travel
3.	month	int	2	The month of travel
4.	yr	int	2	The year of travel
5.	src	char	1	Departure City
6.	dest	char	1	Destination City
7.	airl	char	1	Chosen Airline
8.	tcode	char	1	Travel code
9.	email	char	1	Email ID
10.	fcode	char	1	Flight Code

11.	ph_no	char	1	Phone Number for contact
12.	distance	float	4	Distance between the departure & destination city
13.	time	float	4	Duration of travel
14.	cost	double	8	Total Fare

- Data members of class passenger details:

No	Field Name	Type	Size	Data Description
1.	tcode	char	1	Travel Code
2.	name	char	1	Name of the passenger
3.	gender	char	1	Gender of the passenger
4.	age	int	2	Age of the passenger
5.	passno	int	2	Subscript given to each of the passenger travelling

FUNCTION DESCRIPTION

- Member Functions of class ticket details

No.	Function Name	Description
1.	void ticketinput()	-To get the details of the ticket (contact info, etc.)
2.	int getno_of_pass()	-To return the number of passengers travelling.
4.	char * gett_code()	-To get the travel code of the passenger
5.	void ticketoutptut	To display the flight details of the passenger

- Member Functions of class passenger details

No.	Function Name	Description
1.	void passinput(char t_cd[5],int i)	-To get the details of the passengers travelling.

2.	void passoutput()	-To display the details of the passengers.
4.	char * gett_code()	-To return the travel code of the passenger

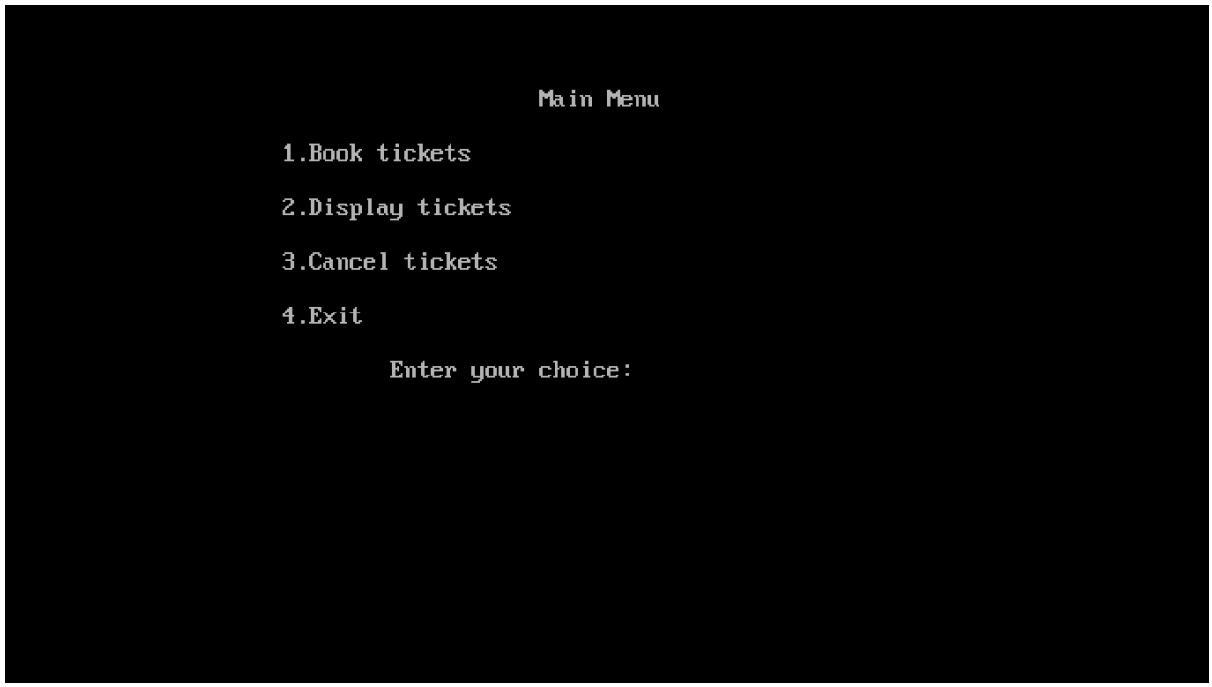
- Other functions…

No.	Function Name	Description
1	void loop()	For screen design

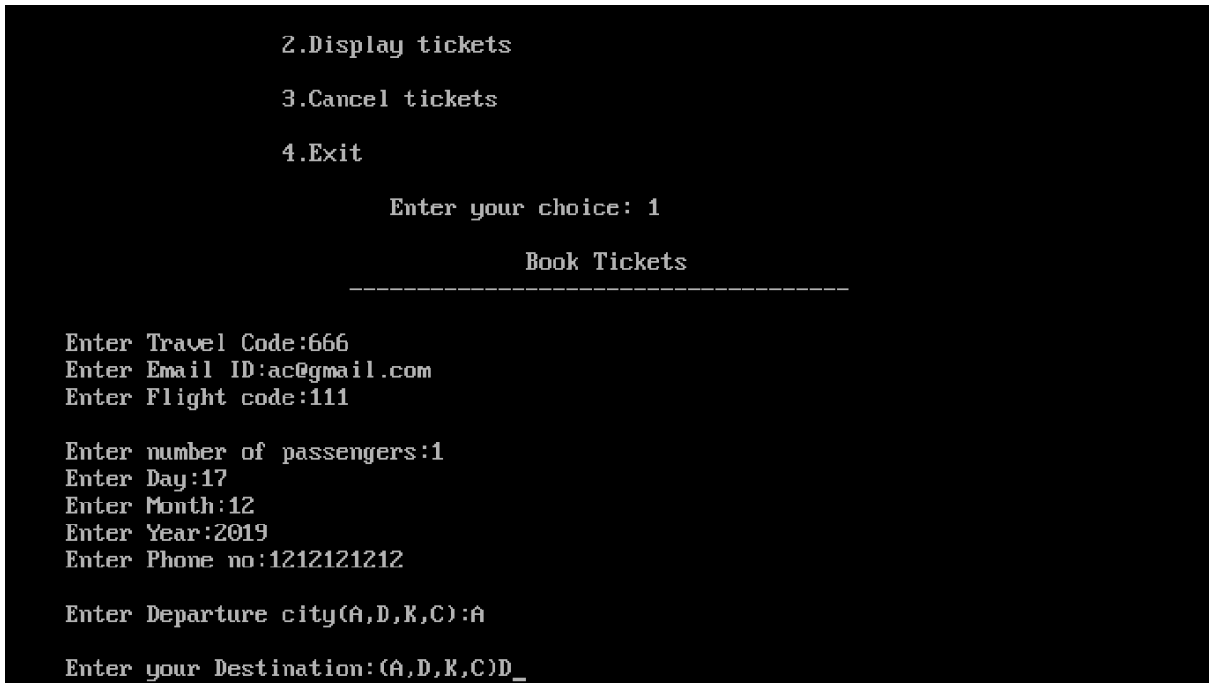
Screen Layouts

Screen 1:

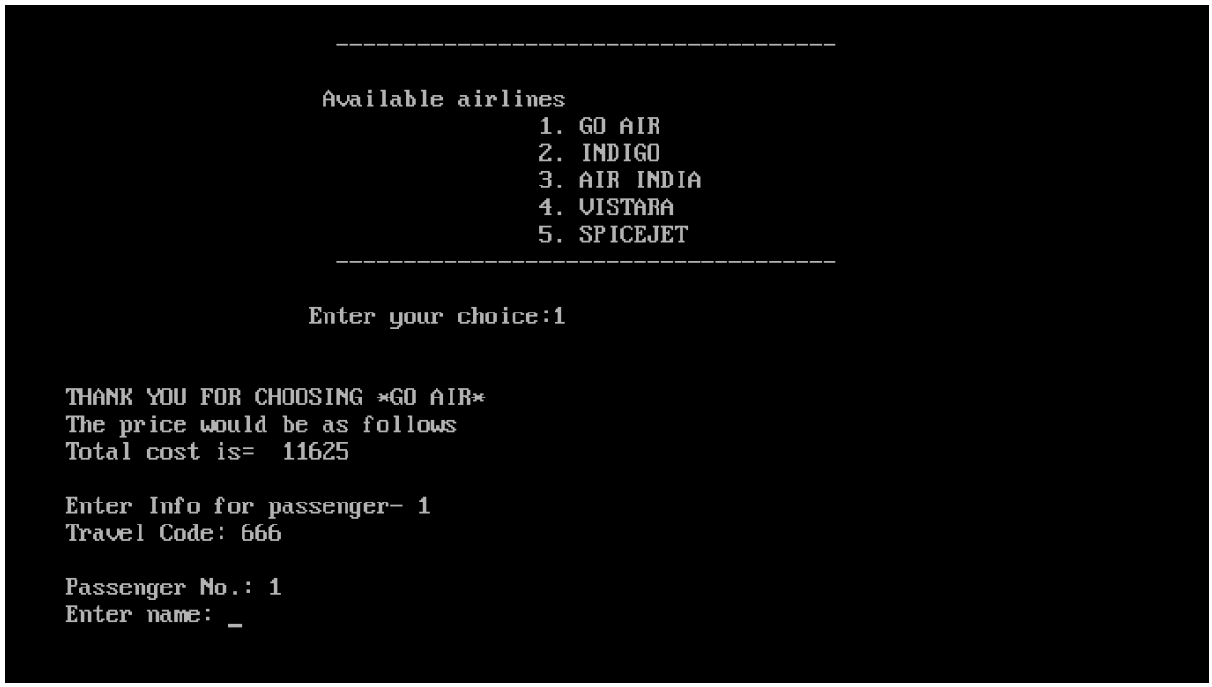
Screen 2:



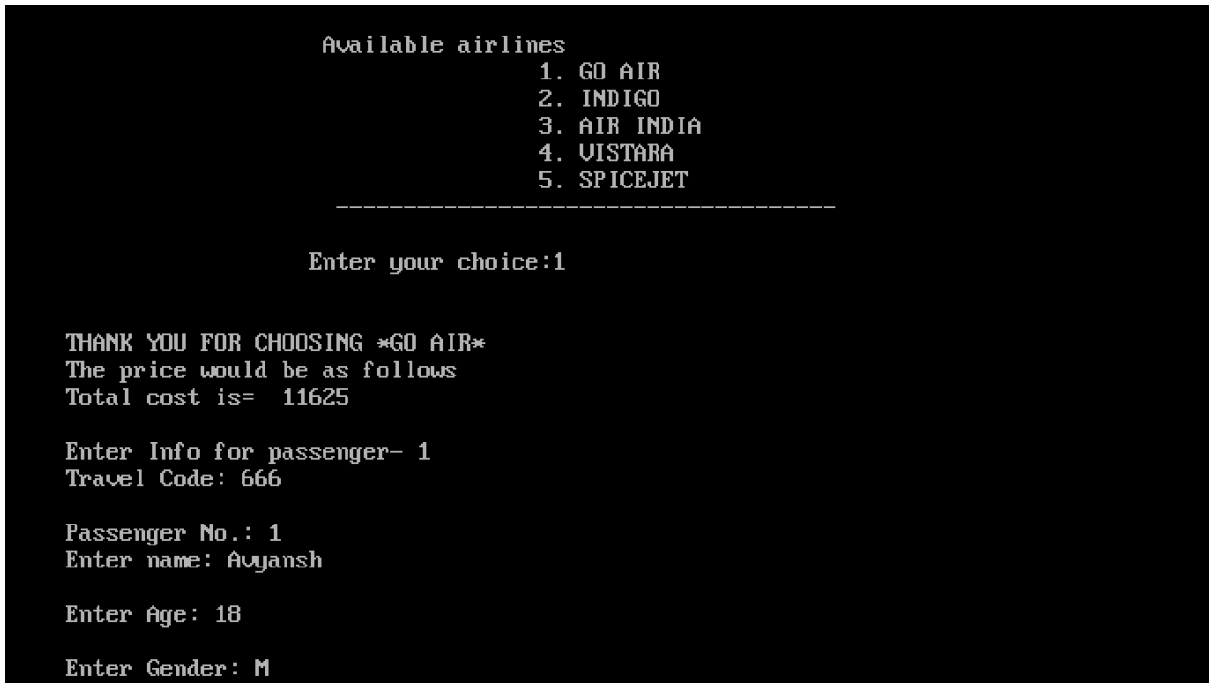
Screen 3:



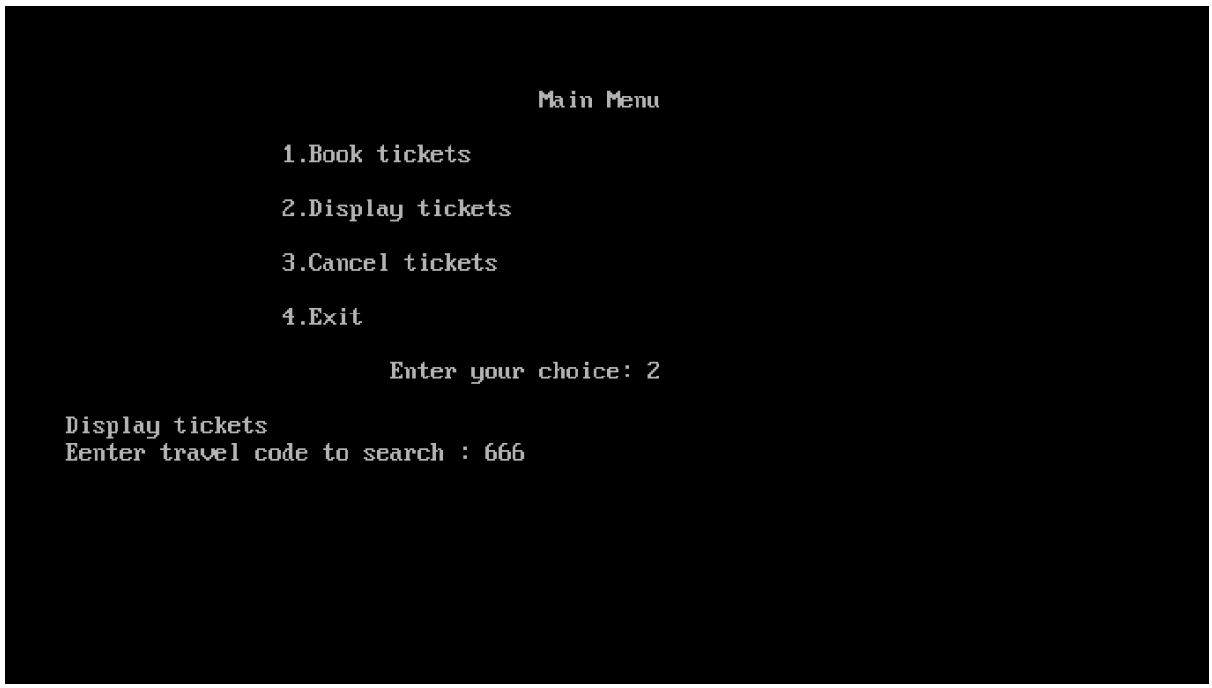
Screen 4:



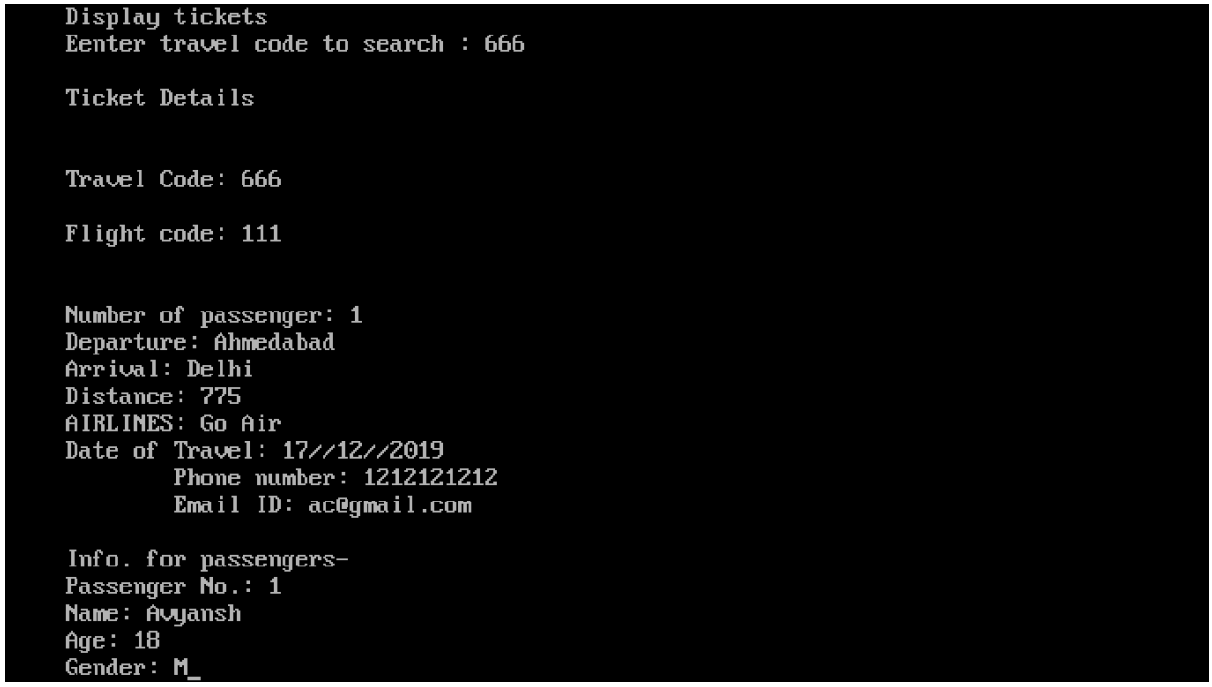
Screen 5:



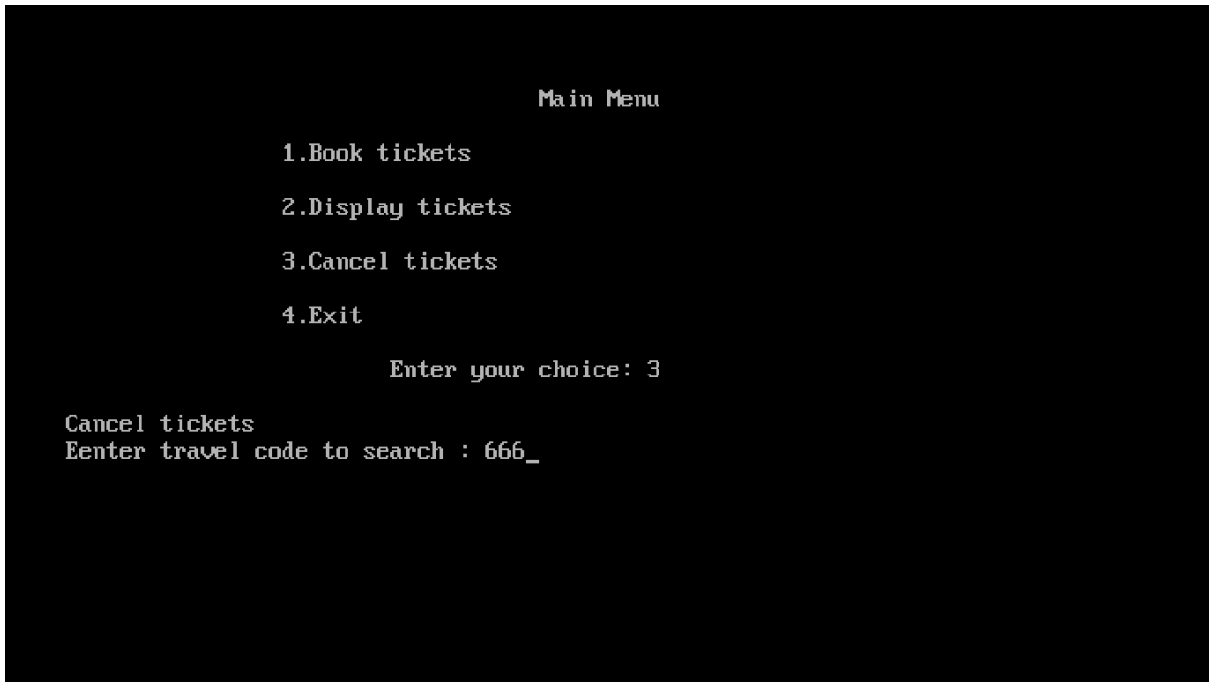
Screen 6:



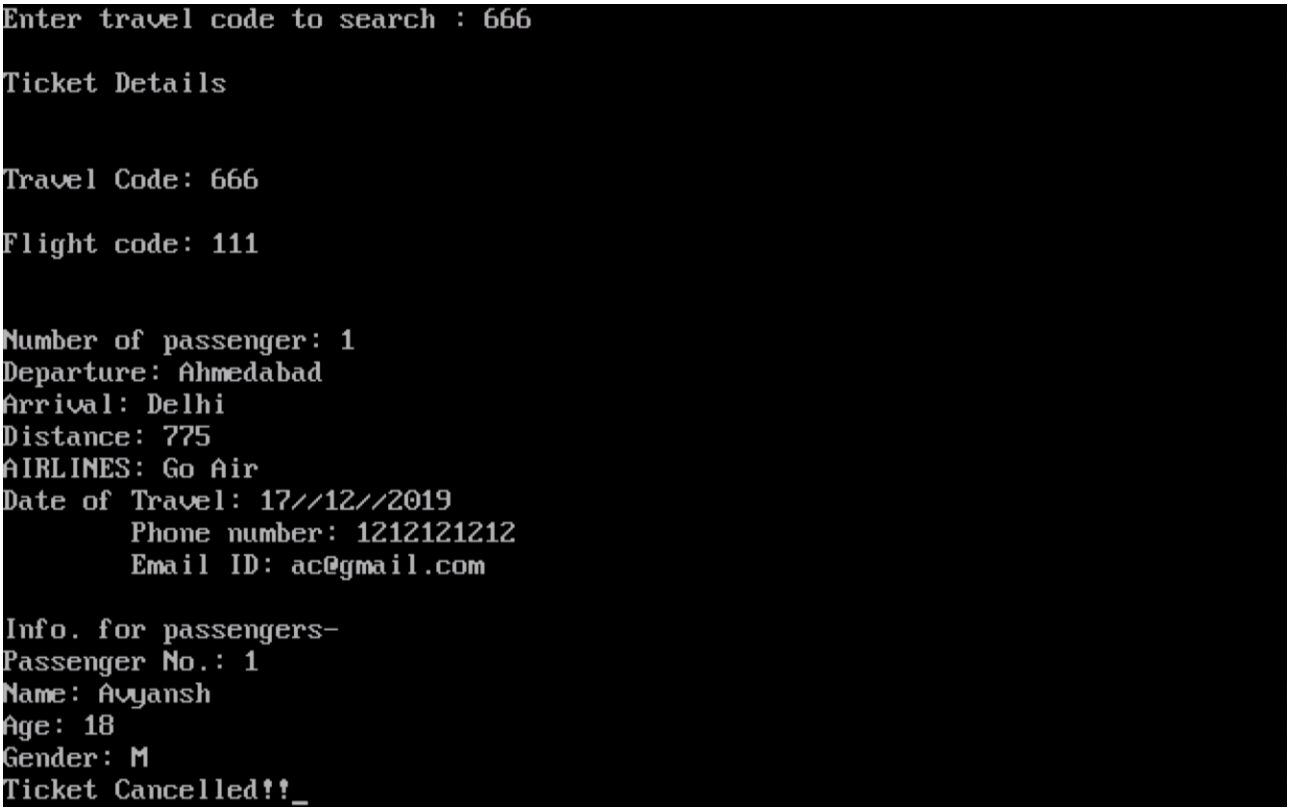
Screen 7:



Screen 8:



Screen 9:


Enter travel code to search : 666
Ticket Details
Travel Code: 666
Flight code: 111
Number of passenger: 1
Departure: Ahmedabad
Arrival: Delhi
Distance: 775
AIRLINES: Go Air
Date of Travel: 17//12//2019
Phone number: 1212121212
Email ID: ac@gmail.com
Info. for passengers-
Passenger No.: 1
Name: Avyansh
Age: 18
Gender: M
Ticket Cancelled!!_

SOURCE CODE

FILE NAME: AIR.CPP

CODE:

```
//program to  book tickets and view the respective boarding passes using simple class functions
#include <iostream.h>
#include<fstream.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
#include<stdio.h>
#include<process.h>
void loop();

class ticket                //declaring class
{
        char tcode[5],email[25],fcode[6],ph_no[25],src,dest,airl[25];
        int no_of_pass,day,month,yr;
        float distance,time;
        double cost;
        public:
        void ticketinput()                          //booking tickets
        {       int x;
                cout<<"\n\t\t     ------------------------------------";
                cout<<"\n\nEnter Travel Code:";        gets(tcode);
                cout<<"Enter Email ID:";                gets(email);
                cout<<"Enter Flight code:";             gets(fcode);
                cout<<"\nEnter number of passengers:";              cin>>no_of_pass;
                cout<<"Enter Day:";             cin>>day;
                cout<<"Enter Month:";    cin>>month;
                cout<<"Enter Year:";       cin>>yr;
```

```
cout<<"Enter Phone no:";          gets(ph_no);
cout<<"\nEnter Departure city(A,D,K,C):";    cin>>src;
cout<<"\nEnter your Destination:(A,D,K,C)";         cin>>dest;
clrscr();
if((src=='A') && (dest=='D'))
        {distance=775;}
else
if((src=='A') && (dest=='K'))
        {distance=73;}
else
if((src=='A') && (dest=='C'))
        {distance=1371;}
else
if((src=='D') && (dest=='A'))
        {distance=775;}
else
if((src=='D') && (dest=='C'))
        {distance=1760;}
else
if((src=='D') && (dest=='K'))
        {distance=1305;}
else
if((src=='K') && (dest=='A'))
        {distance=73;}
else
if((src=='K') && (dest=='C'))
        {distance=1366;}
else
if((src=='K') && (dest=='D'))
        {distance=1305;}
else
if((src=='C') && (dest=='A'))
        {distance=1371;}
else
if((src=='C') && (dest,'D'))
        {distance=1760;}
```

```
else
if((src=='C') && (dest=='K'))
        {distance=1366;}
cout<<"\n\t\t    ------------------------------------";
cout<<"\n\n\t\t   Available airlines";
cout<<"\n\t\t\t\t   1. GO AIR";
cout<<"\n\t\t\t\t   2. INDIGO";
cout<<"\n\t\t\t\t   3. AIR INDIA";
cout<<"\n\t\t\t\t   4. VISTARA";
cout<<"\n\t\t\t\t   5. SPICEJET";
cout<<"\n\t\t    ------------------------------------";
cout<<"\n\n\t\t  Enter your choice:";
cin>>x;
switch(x)
{
        case 1:
          strcpy(airl,"Go Air");
          cout<<"\n\nTHANK YOU FOR CHOOSING *GO AIR*";
          cout<<"\nThe price would be as follows  ";
          cost=((distance*15)*no_of_pass);
        break;
        case 2:
          strcpy(airl,"Indigo");
          cout<<"\n\tTHANK YOU FOR CHOOSING *INDIGO*";
          cout<<"\nThe price would be as follows  ";
          cost=((distance*25)*no_of_pass);
        break;
        case 3:
          strcpy(airl,"Air India");
          cout<<"\n\tTHANK YOU FOR CHOOSING *AIR INDIA*";
          cout<<"\nThe price would be as follows  ";
          cost=((distance*5)*no_of_pass);
        break;
        case 4:
          strcpy(airl,"Vistara");
          cout<<"\n\tTHANK YOU FOR CHOOSING *VISTARA*";
```

```
                cout<<"\nThe price would be as follows  ";
                cost=((distance*20)*no_of_pass);
            break;
            case 5:
                strcpy(airl,"Spicejet");
                cout<<"\n\tTHANK YOU FOR CHOOSING *SPICE JET*";
                cout<<"\nThe price would be as follows  ";
                cost=((distance*30)*no_of_pass);
            break;
            default:
                cout<<"We do not provide any other airlines";
        }
        cout<<"\nTotal cost is=\t"<<cost;
}
int getno_of_pass()         {return no_of_pass;}
char * gett_code()   {return tcode;}

void ticketoutput()
{
        cout<<"\n\nTravel Code: ";       puts(tcode);
        cout<<"\nFlight code: " ; puts(fcode);
        cout<<"\n\nNumber of passenger: "<<no_of_pass;
        cout<<"\nDeparture: ";
        if(src=='D') {cout<<"Delhi";}
        else if(src=='A')     {cout<<"Ahmedabad";}
        else if(src=='K')     {cout<<"Kolkata";}
        else if(src=='C')      {cout<<"Chennai";}
        cout<<"\nArrival: ";
        if(dest=='D') {cout<<"Delhi";}
        else if(dest=='A')    {cout<<"Ahmedabad";}
        else if(dest=='K')   {cout<<"Kolkata";}
        else if(dest=='C')   {cout<<"Chennai";}
        cout<<"\nDistance: "<<distance;
        cout<<"\nAIRLINES: "<<airl;
        cout<<"\nDate of Travel: "<<day<<"//"<<month<<"//"<<yr;
        cout<<"\n\tPhone number: "<<ph_no;
```

```
                cout<<"\n\tEmail ID: "<<email;
                } //end of output function
};
class passenger                 //declaring class
{
      char tcode[5],name[25],gender;
      int age,passno;
public:
        void passinput(char t_cd[5],int i)        //getting info of passengers
        {
                        passno=i+1;
                        strcpy(tcode,t_cd);
                        cout<<"\nTravel Code: ";   puts(tcode);
                        cout<<"\nPassenger No.: "<<passno;
                        cout<<"\nEnter name: ";     gets(name);
                        cout<<"\nEnter Age: ";      cin>>age;
                        cout<<"\nEnter Gender: ";   cin>>gender;
        }
        void passoutput()        //getting info of passengers
        {             cout<<"\nPassenger No.: "<<passno;
                        cout<<"\nName: "<<name;
                        cout<<"\nAge: "<<age;
                        cout<<"\nGender: "<<gender;
        }

        char * gett_code(){return tcode;}
};

void main()
{       clrscr();
         ticket a1; passenger p;
         fstream tfile,pfile;
         ofstream tfile1,pfile1;
         cout<<"\n\n\t\t\t\tCOMPUTER PROJECT";
         cout<<"\n\n\n\t\t\t    AIR Ticket Booking System\n\n\n\t\t\t";
         loop();
```

```
        cout<<"\n\n\n\t\t\tWELCOME TO UDGAM'S DOMESTIC
AIRPORT\n\n\n\t\t\t";
        loop();
        cout<<"\n\n\n\n\t\t\t\t\t       PROJECT BY:-Avyansh Chaturvedi";
        cout<<"\n\t\t\t\t\t                -Prarthan Patel";
        cout<<"\n\t\t\t\t\t                -Pratik Kelkar";
        cout<<"\n\t\t\t\t\t                -Jainam Shah";
        getch();
        clrscr();
        int x=0;
        char * ttcd=new char[5];
        char found='n';
        char * const ttcd1=new char[5];
        while(x<4)
        {
                cout<<"\n\n\n\t\t\t\t   Main Menu";
                cout<<"\n\n\t\t1.Book tickets";
                cout<<"\n\n\t\t2.Display tickets";
                cout<<"\n\n\t\t3.Cancel tickets";
                cout<<"\n\n\t\t4.Exit";
                cout<<"\n\n\t\t\tEnter your choice: ";    cin>>x;
                switch(x)                       //choose the function
                {
                case 1:
                        cout<<"\n\t\t\t\t  Book Tickets";   //for booking the tickets
                        a1.ticketinput();
                        tfile.open("ticket.txt",ios::app|ios::binary);
                        tfile.write((char *)&a1, sizeof(a1));
                        tfile.close();
                        passenger p;
                        pfile.open("pass.txt",ios::app|ios::binary);
                  for(int i=0;i<a1.getno_of_pass();i++)
                  {
                       cout<<"\n\nEnter Info for passenger- "<<(i+1);
                       strcpy(ttcd1,a1.gett_code());
                       p.passinput(ttcd1,i);
```

```
            pfile.write((char *)&p, sizeof(p));
        }
            pfile.close();
            cout<<"\nBooking complete";
            delete ttcd1;
            clrscr();
        break;
    case 2:
             cout<<"\nDisplay tickets";   //for cancelling unecessary tickets
            tfile.open("ticket.txt",ios::in|ios::binary);
            cout<<"\n\Eenter travel code to search : ";
            cin>>ttcd;
        while(tfile.read((char *)&a1,sizeof(a1)))
        {
            strcpy(ttcd1,a1.gett_code());
            if(strcmp(ttcd,ttcd1)==0)
            {
            cout<<"\nTicket Details\n";
            a1.ticketoutput();
            found='y';
               }
        }
            tfile.close();
            if(found=='y')
            {
            cout<<"\n\nInfo. for passengers-";
            pfile.open("pass.txt",ios::in|ios::binary);
        while(pfile.read((char *)&p,sizeof(p)))
        {
            strcpy(ttcd1,p.gett_code());
            if(strcmp(ttcd1,ttcd)==0)
            p.passoutput();
        }
            pfile.close();
         }
        else
```

```
        cout<<"Ticket not found in file "<<endl;
        getch();
        clrscr();
   break;
case 3:
        cout<<"\nCancel tickets";   //for cancelling unecessary tickets
        found='n';
        tfile.open("ticket.txt",ios::in|ios::binary);
        cout<<"\n\Eenter travel code to search : ";
        cin>>ttcd;
        tfile1.open("tticket.txt",ios::out|ios::binary);
    while(tfile.read((char *)&a1,sizeof(a1)))
    {
        strcpy(ttcd1,a1.gett_code());
        if(strcmp(ttcd,ttcd1)==0)
        {
        cout<<"\nTicket Details\n";
        a1.ticketoutput();
        found='y';
        }
        else
          tfile1.write((char *)&a1, sizeof(a1));
    }
        tfile.close();
        tfile1.close();
        if(found=='y')
        {
        cout<<"\n\nInfo. for passengers-";
        pfile.open("pass.txt",ios::in|ios::binary);
        pfile1.open("tpass.txt",ios::out|ios::binary);
   while(pfile.read((char *)&p,sizeof(passenger)))
   {
        strcpy(ttcd1,p.gett_code());
        if(strcmp(ttcd1,ttcd)==0)
        p.passoutput();
        else
```

```
                    pfile1.write((char *)&p,sizeof(passenger));
                    pfile.read((char *)&p,sizeof(p));
                }
                    pfile.close();
                    pfile1.close();
                    remove("ticket.txt");
                    remove("pass.txt");
                    rename("tticket.txt","ticket.txt");
                    rename("tpass.txt","pass.txt");
                    cout<<"\nTicket Cancelled!!";
                }
                else
                    cout<<"Ticket not found in file "<<endl;
                    getch();
                    clrscr();
            break;
            case 4:     cout<<"\n\n\t\t\tExiting from Menu!!";              //Exit the
program
                        exit(0);
                        break;
            default: cout<<"\nInvalid choice";
        }
        getch();

}
        delete ttcd1;
}
void loop()
{
for (int i=0;i<12;i++)
cout<<"-";
for (int j=0;j<9;j++)
cout<<"*";
for (int k=0;k<12;k++)
cout<<"-";    }
```