#include<iostream>

#include<conio.h>

#include<fstream>

#include<string.h>

#include<string>

#include"help.h"

using namespace std;

void password(int &checker) // ask for a password

{

int password=0,pass=0;

gotoxy(0,12);

myTri(350,90,500,180,255,255,255,255,255,255); // password

cout<<"Enter Password : ";

cin>>password;

ifstream fin;

fin.open("password.txt");

while(fin>>pass)

{

if(pass==password)

{

myTri(350,90,500,180,0,128,0,0,128,0);

cout<<"Access Accepted...."<<endl;

Sleep(1000);

checker=1;

break;

}

else

{

myTri(350,90,500,180,255,0,0,255,0,0);

cout<<"Access Denied...."<<endl;

Sleep(1000);

checker=0;

break;

}

}

}

void reset() //reset password

{

int pass=0;

ofstream fout;

fout.open("password.txt");

cout<<"Enter New Password : ";

cin>>pass;

fout<<pass;

fout.close();

cout<<"Your Password Is Successfully Changed..."<<endl;

}

void Menu() // shows us possible options

{

cout<<"1. Flight Details"<<endl;

cout<<"2. Check Availablity"<<endl;

cout<<"3. Book ticket"<<endl;

cout<<"4. Cancellation"<<endl;

cout<<"5. Passengers information"<<endl;

cout<<"6. Reset Password"<<endl;

cout<<"7. Exit"<<endl;

}

void FlightDetails() // shows us flight details

{

int idOflight=0,seats=0,business=0,economy=0,charges=0;

float Amint=0,Asec=0,Dmint=0,Dsec=0;

char nameOflight[100],time1[100],time2[100],source[100],destination[100],key1='\0',key2='\0';

ifstream fin;

fin.open("flightDetails.txt");

cout<<"ID"<<"\t"<<"Name"<<"\t\t"<<"Arrival"<<"\t"<<"Departure"<<"\t"<<"Source"<<"\t"<<"Destination"<<"\t"<<"Seats"<<"\t"<<"Business"<<"\t"<<"Economy"<<"\t\t"<<"Charges"<<endl;

while(fin>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>seats>>business>>economy>>charges)

{

cout<<idOflight<<"\t"<<nameOflight<<"\t"<<Amint<<key1<<Asec<<time1<<"\t"<<Dmint<<key2<<Dsec<<time2<<"\t\t"<<source<<"\t"<<destination<<"\t\t"<<seats<<"\t"<<business<<"\t\t"<<economy<<"\t\t"<<charges<<endl;

}

}

void Seats(int array[10][4],int array1[10][4],int array2[10][4]) // it will provide us empty seats

{

int val=0,i=0,j=0;

ifstream fin;

fin.open("seats.txt");

while(fin>>val)

{

array[i][j]=val;

j++;

if(j==4)

{

i++;

j=0;

}

}

i=0,j=0;

fin.close();

fin.open("seats1.txt");

while(fin>>val)

{

array1[i][j]=val;

j++;

if(j==4)

{

i++;

j=0;

}

}

fin.close();

i=0,j=0;

fin.open("seats2.txt");

while(fin>>val)

{

array2[i][j]=val;

j++;

if(j==4)

{

i++;

j=0;

}

}

fin.close();

}

void seatsShow(int array[10][4]) // show number for available seats and X for reserved

{

int x1=410,x2=450,y1=10,y2=40;

cout<<"~Seats Management And Availablity~"<<endl;

int counter=1;

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

if(array[i][j]==0){

cout<<counter<<"\t";

myRect(x1,y1,x2,y2,0,0,250,0,0,250);

}

else

{

cout<<"X\t";

myRect(x1,y1,x2,y2,250,0,0,250,0,0);

}

x1=x1+50;

x2=x2+50;

counter++;

}

x1=410;

x2=450;

y1=y1+40;

y2=y2+40;

cout<<endl;

}

}

int CheckAvailable(int array[10][4],int seatNUmber) // check if seat is available or not

{

int counter=1;

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

if(counter==seatNUmber)

{

if(array[i][j]==0){

return 1; // seat is available

break;

}

else{

return 0; //seat is not available

break;

}

}

counter++;

}

}

}

void Booked(int array[10][4],int seatNumber) // it will book a seat number

{

int counter=1;

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

if(counter==seatNumber)

{

array[i][j]=1; // booked

}

counter++;

}

}

}

void Booking(int array[10][4],int array1[10][4],int array2[10][4]) // book a seat and store passengers information according to their flights

{

int option=0,seat=0,passPort=0;

char name[100],clas[100];

FlightDetails();

cout<<"Choose Any Flight : ";

cin>>option;

int idOflight=0,seats=0,business=0,economy=0,charges=0;

float Amint=0,Asec=0,Dmint=0,Dsec=0;

char nameOflight[100],time1[100],time2[100],source[100],destination[100],key1='\0',key2='\0';

ifstream fin;

ofstream fout;

fin.open("flightDetails.txt");

if(option==1)

fout.open("passengers.txt",fstream::app);

if(option==2)

fout.open("passengers1.txt",fstream::app);

if(option==3)

fout.open("passengers2.txt",fstream::app);

while(fin>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>seats>>business>>economy>>charges)

{

if(option==idOflight)

{

cout<<"Select Seat : ";

cin>>seat;

if(option==1){

if(CheckAvailable(array,seat)){

cout<<"Enter Your Name : ";

cin.getline(name,100);

cin.getline(name,100);

cout<<"Enter Your PassPort : ";

cin>>passPort;

cout<<"Enter Class : ";

cin.getline(clas,100);

if(clas[0]=='B')

{

charges=charges+5000;

}

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<" "<<key1<<" "<<Asec<<" "<<time1<<" "<<Dmint<<" "<<key2<<" "<<Dsec<<" "<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

if(option==2){

if(CheckAvailable(array1,seat)){

cout<<"Enter Your Name : ";

cin.getline(name,100);

cin.getline(name,100);

cout<<"Enter Your PassPort : ";

cin>>passPort;

cout<<"Enter Class : ";

cin.getline(clas,100);

if(clas[0]=='B')

{

charges=charges+5000;

}

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<" "<<key1<<" "<<Asec<<" "<<time1<<" "<<Dmint<<" "<<key2<<" "<<Dsec<<" "<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

if(option==3){

if(CheckAvailable(array2,seat)){

cout<<"Enter Your Name : ";

cin.getline(name,100);

cin.getline(name,100);

cout<<"Enter Your PassPort : ";

cin>>passPort;

cout<<"Enter Class : ";

cin.getline(clas,100);

if(clas[0]=='B')

{

charges=charges+5000;

}

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<" "<<key1<<" "<<Asec<<" "<<time1<<" "<<Dmint<<" "<<key2<<" "<<Dsec<<" "<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

}

}

if(option==1)

{

Booked(array,seat); // seat is booked

ofstream data;

data.open("seats.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

data<<array[i][j]<<" ";

}

}

}

if(option==2)

{

Booked(array1,seat); // seat is booked

ofstream data;

data.open("seats1.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

data<<array1[i][j]<<" ";

}

}

}

if(option==3)

{

Booked(array2,seat); // seat is booked

ofstream data;

data.open("seats2.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

data<<array2[i][j]<<" ";

}

}

}

cout<<"Seat is Booked Successfully..."<<endl;

}

void information() // provide information of every passenger

{

int id=0;

cout<<"Enter The ID Of The Flight : ";

cin>>id;

if(id==1)

{

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

ifstream fin;

ofstream fout;

fout.open("info.txt");

fin.open("passengers.txt");

cout<<"Seat"<<"\t"<<"Name"<<"\t"<<"PassPort"<<"\t"<<"ID"<<"\t"<<"Airline"<<"\t\t"<<"Arrival"<<"\t"<<"Departure"<<"\t"<<"Source"<<"\t"<<"Destination"<<"\t"<<"Charges"<<endl;

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

cout<<seat<<"\t"<<name<<"\t"<<passPort<<"\t\t"<<idOflight<<"\t"<<nameOflight<<"\t"<<Amint<<key1<<Asec<<time1<<"\t"<<Dmint<<key2<<Dsec<<time2<<"\t\t"<<source<<"\t"<<destination<<"\t\t"<<charges<<endl;

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

if(id==2)

{

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

ifstream fin;

ofstream fout;

fout.open("info1.txt");

fin.open("passengers1.txt");

cout<<"Seat"<<"\t"<<"Name"<<"\t"<<"PassPort"<<"\t"<<"ID"<<"\t"<<"Airline"<<"\t\t"<<"Arrival"<<"\t"<<"Departure"<<"\t"<<"Source"<<"\t"<<"Destination"<<"\t"<<"Charges"<<endl;

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

cout<<seat<<"\t"<<name<<"\t"<<passPort<<"\t\t"<<idOflight<<"\t"<<nameOflight<<"\t"<<Amint<<key1<<Asec<<time1<<"\t"<<Dmint<<key2<<Dsec<<time2<<"\t\t"<<source<<"\t"<<destination<<"\t\t"<<charges<<endl;

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

if(id==3)

{

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

ifstream fin;

ofstream fout;

fout.open("info2.txt");

fin.open("passengers2.txt");

cout<<"Seat"<<"\t"<<"Name"<<"\t"<<"PassPort"<<"\t"<<"ID"<<"\t"<<"Airline"<<"\t\t"<<"Arrival"<<"\t"<<"Departure"<<"\t"<<"Source"<<"\t"<<"Destination"<<"\t"<<"Charges"<<endl;

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

cout<<seat<<"\t"<<name<<"\t"<<passPort<<"\t\t"<<idOflight<<"\t"<<nameOflight<<"\t"<<Amint<<key1<<Asec<<time1<<"\t"<<Dmint<<key2<<Dsec<<time2<<"\t\t"<<source<<"\t"<<destination<<"\t\t"<<charges<<endl;

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

}

void Cancellation(int array[10][4],int array1[10][4],int array2[10][4])

{

int ticket1,counter=1,option=0;

cout<<"Enter ID Of The Flight : ";

cin>>option;

cout<<"Enter ticket Number : ";

cin>>ticket1;

if(option==1){

ofstream ali;

ali.open("seats.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

ali<<"0 ";

if(counter==ticket1)

{

array[i][j]=0; // unreserved

}

counter++;

}

}

ifstream fin;

ofstream fout;

fin.open("info.txt");

fout.open("Passengers.txt");

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

if(seat==ticket1)

{

// do nothing

}

else

{

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

}

if(option==2){

ofstream ali;

ali.open("seats1.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

ali<<"0 ";

if(counter==ticket1)

{

array1[i][j]=0; // unreserved

}

counter++;

}

}

ifstream fin;

ofstream fout;

fin.open("info1.txt");

fout.open("Passengers1.txt");

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

if(seat==ticket1)

{

// do nothing

}

else

{

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

}

if(option==3){

ofstream ali;

ali.open("seats2.txt");

for(int i=0;i<10;i++)

{

for(int j=0;j<4;j++)

{

ali<<"0 ";

if(counter==ticket1)

{

array2[i][j]=0; // unreserved

}

counter++;

}

}

ifstream fin;

ofstream fout;

fin.open("info2.txt");

fout.open("Passengers2.txt");

int seat=0,passPort=0,idOflight=0,Amint=0,Asec=0,Dmint=0,Dsec=0,charges=0;

char name[100],nameOflight[100],key1='\0',time1[100],key2='\0',time2[100],source[100],destination[100];

while(fin>>seat>>name>>passPort>>idOflight>>nameOflight>>Amint>>key1>>Asec>>time1>>Dmint>>key2>>Dsec>>time2>>source>>destination>>charges)

{

if(seat==ticket1)

{

// do nothing

}

else

{

fout<<seat<<" "<<name<<" "<<passPort<<" "<<idOflight<<" "<<nameOflight<<" "<<Amint<<key1<<Asec<<time1<<" "<<Dmint<<key2<<Dsec<<time2<<" "<<source<<" "<<destination<<" "<<charges<<endl;

}

}

}

cout<<"Successfully Cancelled..."<<endl;

}

void control()

{

int checker=0;

password(checker);

if(checker==1)

{

int option=0,seats[10][4],seats1[10][4],seats2[10][4];

char option1='\0';

Seats(seats,seats1,seats2);

while(option!=7){

system("cls");

Menu();

cout<<"Enter An Option : ";

cin>>option;

if(option==1){

system("cls");

FlightDetails();

cout<<"Enter Any Key To Return To Main Menu : ";

cin>>option1;

}

if(option==2)

{

int D=0;

system("cls");

cout<<"Enter Flight ID : ";

cin>>D;

if(D==1){

seatsShow(seats);

cout<<"Enter Any Key To Return To Main Menu : ";

}

if(D==2){

seatsShow(seats1);

cout<<"Enter Any Key To Return To Main Menu : ";

}

if(D==3){

seatsShow(seats2);

cout<<"Enter Any Key To Return To Main Menu : ";

}

cin>>option1;

}

if(option==3)

{

system("cls");

Booking(seats,seats1,seats2);

cout<<"Enter Any Key To Return To Main Menu : ";

cin>>option1;

}

if(option==4)

{

system("cls");

Cancellation(seats,seats1,seats2);

cout<<"Enter Any Key To Return To Main Menu : ";

cin>>option1;

}

if(option==5)

{

system("cls");

information();

cout<<"Enter Any Key To Return To Main Menu : ";

cin>>option1;

}

if(option==6)

{

system("cls");

reset();

cout<<"Enter Any Key To Return To Main Menu : ";

cin>>option1;

}

if(option==7)

{

cout<<"GOOD BYE!";

}

}

}

else

{

cout<<"Sorry You Are Not Allowed..";

}

}

int main()

{

control();

getch();

}