**AIRLINE MANAGEMENT SYSTEM**

#include <iostream>

#include<fstream>

#include<string.h>

using namespace std;

class d\_booking

{

protected:

char toja[7],tojd[7];

long int doj;

int choice,src,dest;

public:

int j\_detail()

{

cout<<"\nEnter your date of Journey in DDMMYY format."<<endl;

cin>>doj;

cout<<"Enter the corresponding number to the places to choose your source and destination"<<endl;

cout<<"\1.Goa -1 \t\2.Banglore -2 \t\3.Delhi -3 \t\4.Kolkata -4" << endl << endl;

cout<<"\tEnter Source"<<endl;

cin>>src;

cout<<"\tEnter destination"<<endl;

cin>>dest;

if((src==1 && dest==2)||(src==2 && dest==1))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if((src==1 && dest==3) || (src==3 && dest==1))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if((src==1&& dest==4)||(src==4 && dest==1))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if((src==2 && dest==3)||(src==3 && dest==2))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if((src==2 && dest==4) || (src==4 && dest==2))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if((src==3 && dest==4) || (src==4 && dest==3))

{

cout<<"\t \t \tFlights Available"<<endl<<endl;

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"08:00\t\t11:05\t\tRs.5000.50\t\tRefundable -1\n";

cout<<"14:00\t\t17:05\t\tRs.5500.25\t\tRefundable -2\n";

cout<<"19:00\t\t22:05\t\tRs.6000.75\t\tRefundable -3\n";

}

else if(src==dest)

{

cout<<"\nSource and destination cannot be same.\nPlease Enter the details again\n\n\n" << endl;

return j\_detail();

}

else

{

cout<<"\nWrong input entered\nPlease Enter valid input\n\n\n" << endl;

return j\_detail();

}

return 0;

}

int select\_flight()

{ cout<<"\nSelect an Option" << endl;

cin>>choice;

switch(choice)

{

case 1:

cout<<"\nFlight selected:"<<endl;

cout<<"Departure Time : 08:00"<<endl;

cout<<"Arrival Time: 11:05"<<endl;

strcpy(tojd,"8:00");

strcpy(toja,"11:05");

break;

case 2:

cout<<"\nFlight selected:"<<endl;

cout<<"Departure Time : 14:00"<<endl;

cout<<"Arrival Time: 17:05"<<endl;

strcpy(tojd,"14:00");

strcpy(toja,"17:05");

break;

case 3:

cout<<"\nFlight selected:" << endl;

cout<<"Departure Time : 19:00" << endl;

cout<<"Arrival Time: 22:05" << endl;

strcpy(tojd,"19:00");

strcpy(toja,"22:05");

break;

default:

cout<<"Invalid input entered.\nplease try again" << endl;

return select\_flight();

}

return 0;

}

int sendprice()

{

return (choice);

}

friend class payment;

};

class i\_booking

{

protected:

int pnri;

char tojai[7],tojdi[7];

long int doji;

int srci,desti,choicei;

public:

int j\_detaili()

{

cout<<"\nEnter your date of Journey in DDMMYY format."<<endl;

cin>>doji;

cout<<"\1.India -1 \2.Qatar -2 \3.Abu Dhabi -3 \4.Singapore -4 \5.London -5 " << endl << endl;

cout<<"\tEnter Source" << endl;

cin>>srci;

cout<<"\nEnter destination" ;

cin>>desti;

cout<<"\t \t \tFlights Available" << endl << endl;

if((srci==1 && desti==3)||(srci==3 && desti==1))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n";

}

else if((srci==1 && desti==4)||(srci==4 && desti==1))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n";

}

else if((srci==1 && desti==5)||(srci==5 || desti==1))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n";

}

else if((srci==2 && desti==3)||(srci==3 && desti==2))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n";

}

else if((srci==2 && desti==4)||(srci==4 && desti==2))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n"; }

else if((srci==2 && desti==5)||(srci==5 && desti==2))

{

cout<<"Departure:\tArrival:\tPrice:\t\tCategory:\n";

cout<<"10:00\t\t14:05\t\tRs.25000.50\tRefundable -1\n";

cout<<"14:00\t\t18:05\t\tRs.21500.25\tRefundable -2\n";

cout<<"18:00\t\t22:05\t\tRs.24000.75\tRefundable -3\n";

}

else if(srci==desti)

{

cout<<"Source and Destination Cannot be same\nPlease try again\n\n\n"<<endl;

return j\_detaili();

}

else

{

cout<<"Invalid input entered.\nPlease try again\n\n\n";

return j\_detaili();

}

return 0;

}

int select\_flighti()

{

cout<<"\nEnter your choice"<<endl;

cin>>choicei;

switch(choicei)

{

case 1:

cout<<"\nFlight selected:"<<endl;

cout<<"Departure Time: 10:00"<<endl;

cout<<"Arrival Time: 14:05"<<endl;

strcpy(tojdi,"10:00");

strcpy(tojai,"14:05");

break;

case 2:

cout<<"\nFlight selected:"<<endl;

cout<<"Departure Time: 14:00"<<endl;

cout<<"Arrival Time: 18:05"<<endl;

strcpy(tojdi,"14:00");

strcpy(tojai,"18:05");

break;

case 3:

cout<<"\nFlight selected:"<<endl;

cout<<"Departure Time : 18:00"<<endl;

cout<<"Arrival Time: 22:05"<<endl;

strcpy(tojdi,"18:00");

strcpy(tojai,"22:05");

break;

default:

cout<<"Invalid input entered\n Please try again"<<endl;

return select\_flighti();

}

return 0;

}

int sendiprice()

{

return (choicei);

}

friend class payment;

};

class passenger: public d\_booking,public i\_booking//multiple inheritance

{

protected:

char f\_name[20],l\_name[20],email[50];

int age,gender;

long int c\_no;

public:

void p\_detail(int x)

{ if(x==1)

{

j\_detail();

select\_flight();

}

else

{

j\_detaili();

select\_flighti();

}

cout<<"\n\n\nEnter passenger details as specified below";

cout<<"\nFirst Name:";

cin>>f\_name;

cout<<"Last Name:";

cin>>l\_name;

}

int gender\_check()

{

cout<<"\nGender:\nFor Male press 1\nFor Female press 2\n";

cin>>gender;

if(gender>2)

{

cout << "\n\nInvalid input entered.\nPlease try again\n\n" << endl;

return gender\_check();

}

return 0;

}

void more\_details()

{

cout<<"Age:";

cin>>age;

cout<<"Email Id:";

cin>>email;

cout<<"Contact no.(6 digits):";

cin>>c\_no;

cout<<"\n\nDetails Entered:\n";

cout<<"Name:"<<f\_name<<" "<<l\_name<<endl;

cout<<"Gender:"<<gender<<endl;

cout<<"Age:"<<age<<endl;

cout<<"Email id:"<<email<<endl;

cout<<"Contact No.:"<<c\_no<<endl;

}

void disp()

{

cout<<"Name:" << f\_name << " " << l\_name << endl;

cout<<"Date of Journey:" << doj << endl;

cout<<"Departure Time:" << tojd << endl;

cout<<"Arrival Time:" << toja;

}

void dispi()

{

cout<<"Name:" << f\_name << " " << l\_name << endl;

cout<<"Date of Journey:" << doji << endl;

cout<<"Departure Time:" << tojdi << endl;

cout<<"Arrival Time:" << tojai;

}

};

class payment

{

protected:

long

int choice1,bank,card,date,cvv,user\_id;

char password[10];

public:

void pay\_detail()

{

cout << "\n\n\nHow would you like to pay?:\n";

cout << "\n\1.Debit Card(1) \n\2.Credit Card(2) \n\3.Net Banking(3)";

cout << "\n\nEnter your choice";

cin >> choice1;

if(choice1==1)

choicefunc(2);

else if (choice1==2)

choicefunc(2,5);

else

choicefunc('a');

}

int choicefunc(int n)//function overloading

{

cout << "\nEnter card no.:";

cin >> card;

cout << "\nEnter expiry date:";

cin >> date;

cout << "\nEnter CVV no.:";

cin >> cvv;

cout << "\nTransaction Successful\n";

return 0;

}

int choicefunc(int n,int m)

{

cout << "\nEnter card no.:";

cin >> card;

cout << "\nEnter expiry date:";

cin >> date;

cout << "\nEnter password:";

cin >> password;

cout << "\nTransaction Successful\n";

return 0;

}

int choicefunc(char n)

{

cout << "Banks Available: \1.Bank of Baroda(1) \2.HDFC Bank(2) \3.e Bank Of India(3) \4.Axis Bank(4) \5.Others(5)";

cout << "\nSelect your bank:";

cin >> bank;

cout << "\nYou have selected:" << bank;

cout << "\nEnter user id:";

cin >> user\_id;

cout << "\nEnter password:";

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

{

cin >> password[i];

}

cout << "\nTransaction Successful\n";

return 0;

}

void choicefunc()

{

cout << "\nWrong input entered.\nTry again\n\n";

return pay\_detail();

}

int luggage(int y)

{

if (y==1)

{

int lugwt,lop;

float exwt,tp,lugpr;

cout<<"The maximum limit of Luggage allowed in the aircraft is 15 kgs\n";

cout<<"Press 1 if your luggage weight is below 15kgs \n";

cout<<"Press 2 if you want to take more then 15 kgs of luggage \n";

cin>>lop;

d\_booking d1;

int pch=d1.sendprice();

if (pch=1)

tp=5000.50;

else if(pch=2)

tp=5500.25;

else

tp=6000.75;

if(lop==1)

{

cout<<"\n\nFinal Price will be "<<tp<<"\n\n\n";

}

else

{

cout<<"Extra weight is allowed to be carried in the aircraft (domestic) at the rate of Rs 250.25 per kg\n";

cout<<"Enter the extra weight you want to carry in kgs\n";

cin>>exwt;

lugpr=exwt\*250.25;

sendcost(lugpr,tp);

}

}

else

{

i\_booking i1;

int lugwti,lopi;

float exwti,lugpr,tp;

cout<<"\n\n\nThe maximum limit of Luggage allowed in the aircraft is 15 kgs\n\n\n";

cout<<"Press 1 if your luggage weight is below 15kgs \n";

cout<<"Press 2 if you want to take more then 15 kgs of luggage \n";

cin>>lopi;

int ich=i1.sendiprice();

if(ich=1)

tp=25000.50;

else if(ich=2)

tp=21500.25;

else

tp=24000.75;

if(lopi==1)

{

cout<<"\n\nFinal Price will be "<<tp<<"\n\n\n";

}

else

{

cout<<"Extra weight is allowed to be carried in the aircraft (international) at the rate of Rs 750.25 per kg\n";

cout<<"Enter the extra weight you want to carry in kgs";

cin>>exwti;

lugpr=exwti\*750.25;

sendcost(lugpr,tp);

}

}

return 0;

}

int sendcost(int x,int y)

{

amount obj1, obj2, result;

obj1.setValue(x);

obj2.setValue(y);

result = obj1 + obj2;

cout << "\n\nThe Extra Luggage Cost Is Rs";

obj1.display();

cout << "\nYour Final Cost will be Rs";

result.display();

return 0;

}

class amount //operator overloading

{

int value;

public:

void setValue(int temp)

{

value = temp;

}

amount operator+(amount ob)

{

amount t;

t.value = value + ob.value;

return (t);

}

void display()

{

cout << value << endl;

}

};

};

int main()

{

class d\_booking d1;

class i\_booking i1;

class passenger p1;

class payment p2;

int ch,ch1,n;

char input;

do

{

cout << "\n\n \t\t\t\tWelcome To STAR AIRLINES " << endl << endl;

cout <<"\t \t\t<><><><><><><><><><><><><><><><><><><><><><><>\n";

cout << "\t \t\tEasy Flight Booking Now Possible at your fingertips!" << endl;

cout <<"\t \t\t<><><><><><><><><><><><><><><><><><><><><><><>";

cout << "\n\nDomestic Fights(1) \nInternational Flights(2)" << endl;

cout << "\nPlease enter your option" << endl;

cin >> ch1;

switch(ch1)

{

case 1:

p1.p\_detail(1);

p1.gender\_check();

p1.more\_details();

p2.luggage(1);

p2.pay\_detail();

p1.disp();

break;

case 2:

p1.p\_detail(2);

p1.gender\_check();

p1.more\_details();

p2.luggage(2);

p2.pay\_detail();

p1.dispi();

break;

default:

cout << "Wrong input entered\nTry again\n\n\n" << endl;

return main();

}

cout<<"\n\n\nDo you wish to continue? If Yes Press Y " << endl;

cin >> input;

}while(input=='Y' || input=='y');

return 0;

}