Flight reservation

#include<iostream>

#include<conio.h>

#include<string>

using namespace std;

class Flight

{

private:

int flight\_no;

string source;

string destination;

int available\_seats;

string toUpperCase(string name)

{

for(int i=0 ;i<3 ;i++)

name[i] = toupper(name[i]);

return name;

}

string shortandcapital(string name)

{

if(name.length() <=3)

{

return toUpperCase(name);

}

else

{

return toUpperCase(name.substr(0,3));

}

}

public:

Flight()

{

flight\_no = 1;

source = "";

destination = "";

available\_seats = 0;

}

Flight(int fno, int seats)

{

flight\_no = fno;

available\_seats = seats;

source = "";

destination = "";

}

Flight(int fno)

{

flight\_no = fno;

source = "";

destination = "";

available\_seats = 0;

}

int getflight\_no(void)

{

return flight\_no;

}

void setsource(string s)

{

source = s;

}

string getsource(void)

{

return source;

}

void setdestination(string d)

{

destination = d;

}

string getdestination(void)

{

return destination;

}

void setavailable\_seats(int seats)

{

available\_seats = seats;

}

int getavailable\_seats(void)

{

return available\_seats;

}

void reserve(int no\_of\_seats)

{

if(no\_of\_seats <= available\_seats)

{

available\_seats = available\_seats - no\_of\_seats;

cout << "\nReserve Seats " << no\_of\_seats << endl;

}

else

{

cout << "\nSorry Seats are not available\n";

}

cout << "Available seats are " << available\_seats;

}

void cancel(int no\_of\_seats)

{

if(no\_of\_seats <= (340-available\_seats))

{

available\_seats = available\_seats + no\_of\_seats;

cout << "\nCancel seats " << no\_of\_seats << endl;

}

else

{

cout << "Seats are more than reserved seats";

}

}

void toString(void)

{

cout << "Flight No : " << flight\_no;

cout << "\nFrom\t : " << shortandcapital(getsource());

cout << "\nTo\t : " << shortandcapital(getdestination());

}

int equal(Flight F)

{

if(flight\_no != F.flight\_no)

{

return 1;

}

else

{

return -1;

}

}

};

void main(void)

{

int fno, st, stc;

string d, sr;

char ch;

cout << "Enter data for Flight 1" << endl;

cout << "Enter Flight no: ";

cin >> fno;

cout << "Enter number of seats: ";

cin >> st;

cout << "Enter source: ";

cin >> sr;

cout << "Enter desinaion: ";

cin >> d;

Flight F1(fno,340);

F1.reserve(st);

F1.setsource(sr);

F1.setdestination(d);

if(st <= F1.getavailable\_seats())

{

cout << "\nDo you want to cancel seats of Flight no " << F1.getflight\_no() << ": (y/n)? ";

cin >> ch;

if(ch == 'y' || ch == 'Y')

{

cout << "Enter how many seats you want to cancel: ";

cin >> stc;

F1.cancel(stc);

}

}

cout << endl;

cout << "\nEnter data for Flight 2" << endl;

cout << "Enter Flight no: ";

cin >> fno;

cout << "Enter number of seats: ";

cin >> st;

cout << "Enter source: ";

cin >> sr;

cout << "Enter desinaion: ";

cin >> d;

Flight F2(fno);

if( F2.equal(F1.getflight\_no()) == 1)

{

F2.setavailable\_seats(340);

}

if(F2.equal(F1.getflight\_no()) != 1)

{

F2.setavailable\_seats(F1.getavailable\_seats());

}

F2.reserve(st);

F2.setsource(sr);

F2.setdestination(d);

if(st <= F1.getavailable\_seats())

{

cout << "\nDo you want to cancel seats of Flight no " << F2.getflight\_no() << ": (y/n)? ";

cin >> ch;

if(ch == 'y' || ch == 'Y')

{

cout << "Enter how many seats you want to cancel: ";

cin >> stc;

F2.cancel(stc);

}

}

cout << "\n-----------------------------\n";

cout << "Flight 1 information:\n";

F1.toString();

cout << "\nTotal Reserved seats are " << 340-F1.getavailable\_seats()<<endl;

cout << "\n-----------------------------\n";

cout << "Flight 2 information:\n";

F2.toString();

cout << "\nTotal Reserved seats are " << 340-F2.getavailable\_seats()<<endl;

if(F2.equal(F1) == 1)

cout << "\nFlights are not same";

if(F2.equal(F1) != 1)

cout << "\nFlights are Same";

getch();

}