OBJECT ORIENTED PROGRAMMING PROJECT



TEAM MEBER:

1. SUDAIS SHERAZ

2. HOONDRAJ

3. ZEESHAN ALI

ENROLLMENT NO: 01-134212-171, 01-134212-209, 01-134212-197

CLASS: BS(CS)-2D

SUBMITTED TO: Ma'am Erum Ashraf

COURSE: OOP (CSC-210)

Department of Computer Sciences
BAHRIA UNIVERSITY, ISLAMABAD

Project Name <u>Airline Management System</u>

Description:

This Project is of "Airline Management System." It allows users to book airline ticket using our program. We As A Team Worked On This Project. The Source Code Is Purely Written By Our Skills Without Any Copy Pasting. We Covered Almost Every Concept We Have Studied So Far In Our Course.

Specially Exception Handling, Templates, File Handling, Polymorphism, Inheritance etc.

About Project:

First Of All, This Program Will Show Up A Menu Containing 5 Choices And Will Ask From User To Choose One From Them. Choices Include:

- 1. Price List
- 2. Booking
- 3. About
- 4. Review
- 5. Exit.

Comments Has Been Used In Almost After Every Line To enhance the readability of the user And To Show That The Program Written By Us Is Logically Ordered.

Member's Role:

Idea And Template By: Hoondraj

Source Code: Zeeshan

File Handling, Exceptional Handling and designing: *Sudais*

Source Code:

```
#include<string>
#include<fstream>
using namespace std; // Scope Identifier
ofstream p_det("Passenger Details.txt"); //Creating a text file to store Passenger's Personal Information
ofstream passngr("Booking Details.txt"); //Creating a text file to store Booking details
class Date // Class To Store Date
public:
  int day, month, year; // Private Data Members
  void Inp() // Function To Take Values Of Day, Month And Year
     cout << "Enter Day: ";
     cin >> day;
     cout << "Enter Month: ";</pre>
    cin >> month;
    cout << "Enter Year: ";
    cin >> year;
  void PrintDate() // Function To Display Date
     if (day < 10 && month < 10) // In Case Day And Month Are Single Digit
       cout << "0" << day << "/0" << month << "/" << year;
     if (day < 10 && month >= 10) // In Case Day Is Single Digit And Month Is Double Digit
       cout << "0" << day << "/" << month << "/" << year;
     if (day >= 10 && month < 10) // In Case Day Is Double Digit And Month Is Single Digit
       cout << day << "/0" << month << "/" << year;
     if (day >= 10 && month >= 10) // In Case Both Day And Month Are Double Digit
       cout << day << "/" << month << "/" << year;
```

```
}; // Class Ends
class Time // Class To Store Time
  // Private Data Members
public:
  int hours, minutes;
  void setHour(int a) // Set Function For Hour
     hours = a;
  void setMinute(int a) // Set Function For Minute
     minutes = a;
  void Inp() // Function For Taking Values Of Hour And Minute
     cout << "Enter Hour (24 Hour Format): ";</pre>
     cin >> hours;
     cout << "Enter Minutes: ";</pre>
     cin >> minutes;
  void PrintTime() // Function To Display Time
     if (hours < 10 && minutes < 10) // In Case Both Hour And Minute Are Single Digit
       cout << "0" << hours << ":0" << minutes;
     if (hours < 10 && minutes >= 10) // In Case Hour Is Single Digit And Minute Is Double Digit
       cout << "0" << hours << ":" << minutes;
     if (hours >= 10 && minutes < 10) // In Case Hour Is Double Digit And Minute Is Single Digit
       cout << hours << ":0" << minutes;</pre>
     if (hours >= 10 && minutes >= 10) // In Case Both Hour And Minute Are Double Digit
       cout << hours << ":" << minutes;</pre>
}; // Class Ends
class Passenger {
  string name;
  string dob;
  string nationality;
  string pasprt;
  string ph;
  string email;
  friend class Flight;
  void input() { //function to input passenger's personal information
     cout << "\nEnter Name: ";
     getline(cin, name);
     cout << "\nEnter Date of Birth: ";</pre>
     getline(cin, dob);
     cout << "\nEnter Your Nationality: ";</pre>
     getline(cin, nationality);
     cout << "\nEnter Passport No. : ";</pre>
     getline(cin, pasprt);
     cout << "\nEnter Phone No. : ";</pre>
     getline(cin, ph);
     cout << "\nEnter Email Address: ";</pre>
     getline(cin, email);
     //saving passenger's information in "Booking Details.txt" file
     p_det << "Passenger Name: " << name << endl << "DOB: " << dob << endl << "Nationality: " << nationality <<
endl
```

```
<< "Passport No: " << pasprt << endl << "Phone No: " << ph << endl << "Email: " << email << endl <<</pre>
     cout << endl;
  void display() { //function to display passenger's information
     cout << "\n\n\t Name: " << name;
     cout << "\n\t DOB: " << dob;
     cout << "\n\t Nationality: " << nationality;</pre>
     cout << "\n\t Passport No: " << pasprt;</pre>
     cout << "\n\t Phone No: " << ph;
     cout << "\n\n******************
class Flight // Base Class + Abstract Class
protected: // To Give Access In Derived Classes
  string Origin, Destination, A_Name;
  Date DepartureDate, ArrivalDate; // User Defined Type Data Members
  Time DepartureTime, ArrivalTime; // User Defined Type Data Members
  int NoOfTickets, Expenses;
public:
  virtual void Input() // Virtual Function Because It Is Used In Derived Classes
     cin.ignore();
     cout << "\nEnter Agent Name: ";</pre>
     getline(cin, A_Name);
     cout << "Enter Origin: ";
     getline(cin, Origin); // Taking Origin In String From User
     cout << "Enter Destination: ";
     getline(cin, Destination); // Taking Destination In String From User
     cout << "Enter Departure Date: \n";
     DepartureDate.Inp(); // Calling InpDeparture Function From Date Class
     cout << "Enter Departure Time: \n";
     DepartureTime.Inp(); // Calling InpDeparture Function From Time Class
     cout << "Enter Arrival Date:\n";
     ArrivalDate.Inp(); // Calling InpArrival Function From Date Class
     cout << "Enter Arrival Time: \n";
     ArrivalTime.Inp(); // Calling InpArrival Function From Time Class
     cout << "How Many Tickets You Want?";
     cin >> NoOfTickets; // Actually Number Of Passengers
    //File Handling
     passngr << "Agent Name: " << A_Name << endl << "Origin: " << Origin << endl << "Destination: " <<
Destination << endl << "No of Tickets Booked: " << NoOfTickets << endl;
     passngr << "Departure Date: " << DepartureDate.day << " / " << DepartureDate.month << " / " <<
DepartureDate.year;
     passngr << "\nDeparture Time: " << DepartureTime.hours << " : " << DepartureTime.minutes;
     passngr << "\nArrival Date: " << ArrivalDate.day << " / " << ArrivalDate.month << " \ " << ArrivalDate.year;
     passngr << "\nArrival Time: " << ArrivalTime.hours << " : " << ArrivalTime.minutes;
     passngr.close(); //closing file
  // Pure Virtual Function Is Used Because Same Function Is Used In All Derived Classes. To Override Function.
```

```
// Virtual Function Isn's Necassary Used In All Derived Class But Pure Virtual Must Be Used In Every Derived
Class.
  virtual void display() = 0; // Pure Virtual Function Of display
  virtual void price() = 0; // Pure Virtual Function Of price
  virtual void expenses() = 0; // Pure Virtual Function Of expenses
}; // Base Class Ends
template <typename T> // Template
void Review(T rev, int age) // Two Types Of Data
  cout << rev << endl;
  if (age < 18) // Condition For Error
    throw age; // Sending In Case Of ERROR
}
class DomesticFlight: public Flight // 1st Derived Class
private:
  int BaggageLimit; // Unique Data Member Of This Derived Class Only.
public:
  void Input() // Function That Is Virtual In Base Class
     cout << "\nDomestic Flight: \n";
    Flight::Input(); // Scope Resolution Operator Because This Input Function Is Written With Virtual In Base Flight
Class.
     cout << "Enter Baggage Limit (in KG): \n";
     cin >> BaggageLimit; // Taking Value Of Unique Data Member Of This Derived Class Only.
    passngr << "\nBaggage Limit: " << BaggageLimit;
  void display() // This Function Is Pure Virtual In Base Class.
    cout << "\nBOOKING DETAILS";</pre>
    cout << endl << " \verb|\tBooked By Agent: | t" << A\_Name;
    cout << endl << "\tOrigin: \t
                                    " << Origin;
    cout << endl << "\tDestination:\t\t" << Destination;
    cout << endl << "\tDeparture Date: \t"; DepartureDate.PrintDate(); // Calling Function Of Class Date
     cout << endl << "\tDeparture Time: \t"; Departure Time.PrintTime(); // Calling Function Of Class Time
    cout << endl << "\tArrival Date: \t\t"; ArrivalDate.PrintDate(); // Calling Function Of Class Date
    cout << endl << "\tArrival Time: \t\t"; Arrival Time. Print Time(); // Calling Function Of Class Time
    cout << endl << "\tBaggage limit: \t\t" << BaggageLimit << "kg";
    cout << endl << "\tTotal Tickets Bought:\t" << NoOfTickets;
    cout << endl << "\tCongratulations !! Ticket Is Booked :) " << endl;</pre>
  void expenses() // This Function Is Pure Virtual In Base Class.
     if (NoOfTickets > 0 && NoOfTickets < 3) // Condition According To Price List Of Domestic Flight
       Expenses = 1000 * NoOfTickets;
       if (BaggageLimit > 20) // Condition According To Price List Of Domestic Flight
         Expenses += (Expenses / 10);
         cout << "Your Total Expenses Is = " << Expenses;</pre>
       else
         cout << "Your Total Expenses Is = " << Expenses;
     else if (NoOfTickets >= 3 && NoOfTickets < 5) // Condition According To Price List Of Domestic Flight
       Expenses = 850 * NoOfTickets;
       if (BaggageLimit > 20) // Condition According To Price List Of Domestic Flight
```

```
Expenses += (Expenses / 10);
                 cout << "Your Total Expenses Is = " << Expenses;</pre>
             else
                 cout << "Your Total Expenses Is = " << Expenses;</pre>
        else if (NoOfTickets >= 5) // Condition According To Price List Of Domestic Flight
             Expenses = 700 * NoOfTickets;
             if (BaggageLimit > 20) // Condition According To Price List Of Domestic Flight
                 Expenses += (Expenses / 10);
                 cout << "Your Total Expenses Is = " << Expenses;</pre>
             else
                 cout << "Your Total Expenses Is = " << Expenses;</pre>
    void price() // This Function Is Pure Virtual In Base Class.
        cout << "\t\t PRICE LIST FOR DOMESTIC FLIGHT\n" << endl;</pre>
        cout << "\t Normal Price : Per Person 1000 Rs" << endl;
        cout << "\t Special Price ( If More Than 3 Tickets ) : Per Person 850 Rs" << endl;
        cout << "\t Family Pack ( Atleast 5 Persons ) : Per Person 700 Rs" << endl;
        cout << "\t Extra 10% Of Total Price If Baggage Limit Is More Than 20 Kg" << endl;
}; // 1st Derived Class Ends
class InternationalFlight: public Flight // 2nd Derived Class
private:
    bool Direct; // Unique Data Member Of This Derived Class Only.
public:
    void Input() // Function That Is Virtual In Base Class
         cout << "\nInternational Flight: \n";</pre>
         Flight::Input(); // Scope Resolution Operator Because This Input Function Is Written With Virtual In Base Flight
Class.
         cout << "Is Flight Direct (1 For Yes & 0 For No): \n";
        cin >> Direct; // Taking Value Of Unique Data Member Of This Derived Class Only.
    void display() // This Function Is Pure Virtual In Base Class.
        cout << "\nBOOKING DETAILS";
        \label{eq:cout} $$ \end{\ensuremath{$<$''$}} $$ \end{\ensuremath{$<$$''$}} $$ \end{\ensuremath{$<$$''$}} $$ \end{\ensuremath{$<$$''$}} $$ \end{\ensuremath{$<$$$''$}} $$ \end{\ensuremath{$<$$$$''$}} $$ \end{\ensuremath{$<$$$$$}} $$ \end{\ensuremath{$<$$$$$$}} $$ \end{\ensuremath{$<$$$$$}} $$ \end{\ensuremath{$<$$$$$}} $$ \end{\ensuremath{$<$$$$$}} $$ \end{\ensuremath{$<$$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$}} $$ \end{\ensuremath{$<$$$}} $$ \ensuremath{$<$$$$}} $$ \end{\ensuremath{$<$$$$}} $$ \ensuremath{$<$$$$}} $$ \ensuremath{$<$$$$} $$ \ensuremath{$<$$$$}} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$$} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$}} $$ \ensuremath{$<$$$} $$ \ensurem
        cout << endl << "\tDestination:\t\t" << Destination;
        cout << endl << "\tDeparture Date: \t"; Departure Date. PrintDate(); // Calling Function Of Class Date
        cout << endl << "\tDeparture Time: \t"; DepartureTime.PrintTime(); // Calling Function Of Class Time
        cout << endl << "\tArrival Date: \t\t"; ArrivalDate.PrintDate(); // Calling Function Of Class Date
        cout << endl << "\tArrival Time: \t\t"; ArrivalTime.PrintTime(); // Calling Function Of Class Time
        cout << endl << "\tDirect Or Connecting: ";</pre>
         (Direct) ? cout << "Direct" : cout << "Conecting";
        cout << endl << "\tTotal Tickets Bought:\t" << NoOfTickets;
        cout << endl << "\tCongratulations !! Ticket Is Booked :) " << endl;
    void expenses() // This Function Is Pure Virtual In Base Class.
        if (NoOfTickets > 0 && NoOfTickets < 3) // Condition According To Price List Of International Flight
             Expenses = 1700 * NoOfTickets;
             if (Direct) // Condition According To Price List Of International Flight
```

```
Expenses += (Expenses / 5);
         cout << "Your Total Expenses Is = " << Expenses;</pre>
       else
         cout << "Your Total Expenses Is = " << Expenses;
     else if (NoOfTickets >= 3 && NoOfTickets < 5) // Condition According To Price List Of International Flight
       Expenses = 1500 * NoOfTickets;
       if (Direct) // Condition According To Price List Of International Flight
         Expenses += (Expenses / 5);
         cout << "Your Total Expenses Is = " << Expenses;</pre>
       else
         cout << "Your Total Expenses Is = " << Expenses;
     else if (NoOfTickets >= 5) // Condition According To Price List Of International Flight
       Expenses = 1350 * NoOfTickets;
       if (Direct) // Condition According To Price List Of International Flight
         Expenses += (Expenses / 5);
         cout << "Your Total Expenses Is = " << Expenses;
       else
         cout << "Your Total Expenses Is = " << Expenses;</pre>
     }
  void price() // This Function Is Pure Virtual In Base Class.
     cout << "\t\t PRICE LIST FOR INTERNATIONAL FLIGHT\n" << endl;
     cout << "\t Normal Price : Per Person 1700 Rs" << endl;
     cout << "\t Special Price ( If More Than 3 Tickets ) : Per Person 1500 Rs" << endl;
     cout << "\t Family Pack ( Atleast 5 Persons ) : Per Person 1350 Rs" << endl;
     cout << "\t Extra 5% Of Total Price If Flight Is Connecting " << endl;
}; // 2nd Derived Class Ends
class OuterSpaceFlight: public Flight // 3rd Derived Class
private:
  int PersonLimit = 4; // According To Condition Given In Price List Of Outer Space Flight
  int NoOfPersons; // Unique Data Member Of This Derived Class Only.
public:
  void Input() // Function That Is Virtual In Base Class
     cout << endl << "Outer Space Exploration Special Flight !! " << endl;</pre>
     Flight::Input(); // Scope Resolution Operator Because This Input Function Is Written With Virtual In Base Flight
Class.
  void display() // This Function Is Pure Virtual In Base Class.
                                      " << Origin;
     cout << endl << "\tOrigin: \t
     cout << endl << "\tDestination:\t\t" << Destination;
     cout << endl << "\tDeparture Date: \t"; DepartureDate.PrintDate(); // Calling Function Of Class Date
     cout << endl << "\tDeparture Time: \t"; Departure Time. PrintTime(); // Calling Function Of Class Time
     cout << endl << "\tArrival Date: \t\t"; ArrivalDate.PrintDate(); // Calling Function Of Class Date
     cout << endl << "\tArrival Time: \t\t"; ArrivalTime.PrintTime(); // Calling Function Of Class Time
     cout << endl << "\tTotal Tickets Bought:\t" << NoOfTickets;</pre>
     if (NoOfTickets <= PersonLimit)</pre>
       cout << endl << "\tCongratulations !! Ticket Is Booked :) " << endl;
```

```
}
    else
      cout << endl << "\tSorry Person Limit Is " << PersonLimit;</pre>
  void expenses() // This Function Is Pure Virtual In Base Class.
    if (NoOfTickets == 1) // According To Condition Given In Price List Of Outer Space Flight
      Expenses = 7000;
      cout << "Your Total Expenses Is = " << Expenses;</pre>
    else if (NoOfTickets == 2 || NoOfTickets == 3) // According To Condition Given In Price List Of Outer Space
Flight
      Expenses = 6200 * 2;
      cout << "Your Total Expenses Is = " << Expenses;</pre>
    else if (NoOfTickets == 4) // According To Condition Given In Price List Of Outer Space Flight
      Expenses = 5900 * 4;
      cout << "Your Total Expenses Is = " << Expenses;</pre>
    else // According To Condition Given In Price List Of Outer Space Flight
      cout << "Sorry Only 4 Persons Allowed";</pre>
  void price() // This Function Is Pure Virtual In Base Class.
    cout << "\t\t PRICE LIST FOR OUTERSPACE FLIGHT\n" << endl;</pre>
   cout << "\t Normal Price : Per Person 7000 Rs" << endl;
    cout << "\t Special Price ( If 2/3 Tickets ) : Per Person 6200 Rs" << endl;
   cout << "\t Max Tax Offer ( 4 Persons ) : Per Person 5900 Rs" << endl;
   cout << "\t Maximum Persons Allowed In Outer Space Flight Is 4";
    cout << endl;
}; // 3rd Derived Class Ends
int main() // Main Function
  Passenger* p = new Passenger;
  Flight* f{}; // Making Object Of Base Class Flight
  char choice; // Character Type Data Member
  int choose; // Int Type Data Member
  char ans; // Character Type Data Mmeber
  do // Do While Loop To Run Program Again And Again until User Type 'n '
   cout <<
******** << endl;
    cout << "\n\t\t\t\t WELCOME TO MUSAAFIR AIRLINE!!" << endl;
cout << "\n\t\t\t\t\t MAIN MENU " << endl;
cout << "\n1) Price List" << endl;
   cout << "2) Flight Booking" << endl;</pre>
   cout << "3) About" << endl;
    cout << "4) Review" << endl;
```

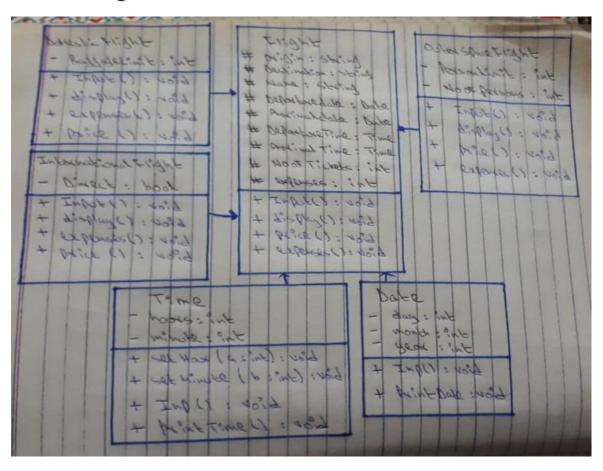
```
cout << "5) Exit" << endl;
cout << "Type Here: ";
cin >> choose; // Taking User Choice In Int
if (choose == 1)
  system("cls"); // To Clear Screen
  cout << "Enter D For Domestic Flight" << endl;</pre>
  cout << "Enter I For International Flight" << endl;</pre>
  cout << "Enter S For Space Exploration" << endl;</pre>
  cout << "Type Here: ";
  cin >> choice; // Taking User Choice In Alphabet
  if (choice == 'D' || choice == 'd')
     system("cls"); // To Clear Screen
    f = new DomesticFlight; // Dynamic Allocating Object Of Domestic Flight
     f->price(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
  if (choice == 'I' || choice == 'i')
     system("cls"); // To Clear Screen
    f = new InternationalFlight; // Dynamic Allocating Object Of International Flight
     f->price(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
  if (choice == 'S' || choice == 's')
     system("cls"); // To Clear Screen
    f = new OuterSpaceFlight; // Dynamic Allocating Object Of Outer Space Flight
    f->price(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
  }
}
if (choose == 2)
  system("cls"); // To Clear Screen
  cout << "Enter D For Domestic Flight" << endl;</pre>
  cout << "Enter I For International Flight" << endl;</pre>
  cout << "Enter S For Space Exploration" << endl;</pre>
  cout << "Type Here: ";
  cin >> choice; // Taking User Choice In Alphabet
  if (choice == 'D' || choice == 'd')
     system("cls"); // To Clear Screen
    f = new DomesticFlight; // Dynamic Allocating Object Of Domestic Flight
  else if (choice == 'I' || choice == 'i')
     system("cls"); // To Clear Screen
     f = new InternationalFlight; // Dynamic Allocating Object Of International Flight
  else if (choice == 's' || choice == 'S')
     system("cls"); // To Clear Screen
    f = new OuterSpaceFlight; // Dynamic Allocating Object Of Outer Space Flight
  cin.ignore(); // Used To Ignore One Or More Characters From Input
```

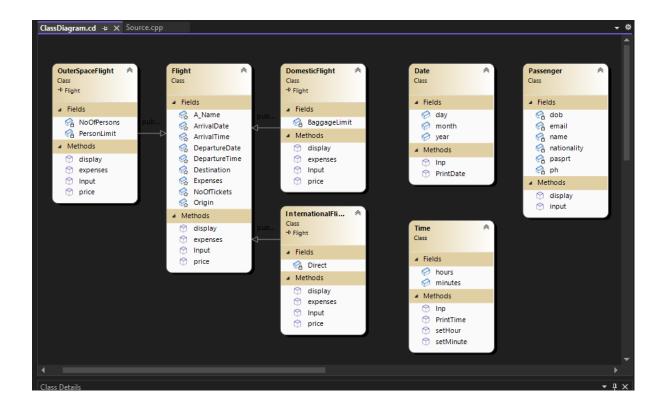
```
cout << "\n**********
      cout << "\nPassenger Information";</pre>
      cout << "\n**********;
      p->input();
      system("cls");
      f->Input(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
      cout << "\nPassenger Details";</pre>
      p->display();
      f->display(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
      f->expenses(); // When Using Dynamic Allocation Of Objects, We Use Pointers.
      delete f;
      cout << endl;
    if (choose == 3) // About Airline Service
      system("cls"); // To Clear Screen
      cout << " WELCOME TO MUSAAFIR AIRLINE " << endl;
      cout << endl << " We Are Providing Services Of Flight Since 2003.";
      cout << endl << "\ Glad\ To\ Tell\ That\ We\ Had\ Been\ Awarded\ Best";
      cout << endl << " Airline Servide Provider Previous Year. We";
      cout << endl << " Aim To Provide Cheap Tickets And More Comfort.";
      cout << endl;
       cout << endl << "THANKS FOR CHOOSING OUR AIRLINE, ENJOY:)" << endl;
    if (choose == 4) // Showing Reviews Of All Customers
      system("cls"); // To Clear Screen
      cout << "Reviews Given By Customers In Form Of Text Or Rating Out Of 5 Stars" << endl;
      cout << endl;
      cout << "Ali ( Age 19 ) Gave Rating "; Review(5, 19); // Sending Int Rating And Int Age
      cout << endl;
      cout << "Amad ( Age 24 ) Gave Rating "; Review(3.6, 24); // Sending Float Rating And Int Age
      cout << endl:
      cout << "Sehrish ( Age 23 ) Commented : "; Review("Best Airline Service I Ever Experienced.", 23); //
Sending String Review And Int Age
      cout << endl;
      cout << "Amna ( Age 19 ) Commented : "; Review("You Have To Work On Your Meal Services In
Airplane.", 19); // Sending String Review And Int Age
      cout << endl:
      cout << "Imaan ( Age 19 ) Gave Rating "; Review(4.9, 19); // Sending Float Rating And Int Age
      try // Try Block To Check Wether There Is Error Or Not
         cout << endl;
         cout << "Abeera ( Age 15 ) Gave Rating "; Review(4, 15); // Sending Less Than 18 Age To Cause Erorr
      catch (int a) // Default Catch Block To Recieve Any Data Type In Case Of Error
         cout << "\n\n[Your Age Is : " << a << "]";
         cout << "\n[ Warning ] << Age Must Be 18 To Give Review >>"; // Error Message
         cout << endl;
    if (choose == 5) // To Exit Program
      system("cls"); // To Clear Screen
      cout << "Thank You For Visiting:)" << endl;
      exit(0); // Closing Console
```

```
system("pause"); // It Is Used To Run Pause Program.
}

cout << endl << "Do You Want To Go Back To Main Menu ? " << endl;
cout << "If Yes Press 'y' Else Press 'n' " << endl;
cout << "Type Here: ";
cin >> ans; // Taking User Choice In Alphabet
system("cls"); // To Clear Screen
} while (ans != 'n'); // Loop Runs Until User Type 'n'
system("pause"); // It Is Used To Run Pause Program
}
```

UML Diagram:





Output:

Main Menu



Price List

PRICE LIST FOR DOMESTIC FLIGHT

Normal Price : Per Person 1000 Rs Special Price (If More Than 3 Tickets) : Per Person 850 Rs Family Pack (Atleast 5 Persons) : Per Person 700 Rs Extra 10% Of Total Price If Baggage Limit Is More Than 20 Kg

Do You Want To Go Back To Main Menu ? If Yes Press 'y' Else Press 'n' Type Here :

Flight Booking

Passenger Information

Enter Name: Sudais

Enter Date of Birth: 22/03/2003

Enter Your Nationality: Pakistani

Enter Passport No. : 831038218309

Enter Phone No.: 81230193

Enter Email Address: sudais@gmail.com

C:\Users\Hitesh\source\repos\OOP Project\x64\E

```
Domestic Flight:
Enter Agent Name: Musaafir
Enter Origin: Islamabad
Enter Destination: Karachi
Enter Departure Date:
Enter Day: 22
Enter Month: 03
Enter Year: 2022
Enter Departure Time:
Enter Hour (24 Hour Format): 11
Enter Minutes: 30
Enter Arrival Date:
Enter Day: 22
Enter Month: 3
Enter Year: 2022
Enter Arrival Time:
Enter Hour (24 Hour Format): 8
Enter Minutes: 30
How Many Tickets You Want? 8
```

```
Passenger Details
     ********
        Name: Sudais
        DOB: 22/03/2003
        Nationality: Pakistani
        Passport No: 831038218309
        Phone No: 81230193
BOOKING DETAILS
 **********
                        Musaafir
       Booked By Agent:
       Origin:
                            Islamabad
       Destination:
                             Karachi
       Departure Date:
                            22/03/2022
       Departure Time:
                             11:30
       Arrival Date:
                            22/03/2022
       Arrival Time:
                            08:30
       Baggage limit:
                            47kg
       Total Tickets Bought:
                            8
       Congratulations !! Ticket Is Booked :)
Your Total Expenses Is = 6160
Do You Want To Go Back To Main Menu ?
If Yes Press 'y' Else Press 'n'
```

About

```
WELCOME TO MUSAAFIR AIRLINE

WE Are Providing Services Of Flight Since 2003.
Glad To Tell That We Had Been Awarded Best
Airline Servide Provider Previous Year. We
Aim To Provide Cheap Tickets And More Comfort.

THANKS FOR CHOOSING OUR AIRLINE , ENJOY :)

Do You Want To Go Back To Main Menu ?

If Yes Press 'y' Else Press 'n'

Type Here :
```

Review

C:\Users\Hitesh\source\repos\OOP Project\x64\Debug\OOP Project.exe

```
Reviews Given By Customers In Form Of Text Or Rating Out Of 5 Stars

Ali ( Age 19 ) Gave Rating 5

Amad ( Age 24 ) Gave Rating 3.6

Sehrish ( Age 23 ) Commented : Best Airline Service I Ever Experienced.

Amna ( Age 19 ) Commented : You Have To Work On Your Meal Services In Airplane.

Imaan ( Age 19 ) Gave Rating 4.9

Abeera ( Age 15 ) Gave Rating 4

[Your Age Is : 15]
[ Warning ] << Age Must Be 18 To Give Review >>

Do You Want To Go Back To Main Menu ?

If Yes Press 'y' Else Press 'n'

Type Here :
```

```
*******

HOTEL MANAGEMENT SYSTEM

MAIN MENU

********

1.Book A Room

2.Customer Records
3.Rooms Allotted
4.Edit Record
5.Exit

Enter Your Choice: 5

C:\Users\Hitesh\source\repos\C++ Project 1st semester\x64\Debug\C++ Project 1st semester.exe (process 12412) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```