

AIRLINE TICKET RESERVATION SYSTEM

NEW RESERVATION | HISTORY | CANCELLATION



OBJECTIVE:

To learn

Object Oriented Programming by understanding all OOPS principles and using it in a project.

About Project: developing a reliable and comfortable reservation system which saves time and energy as well.



NetBeans





INTRODUCTION:

Airline reservation system contains airline schedules, fare tariffs, passenger reservations and ticket records. An airline's direct distribution works within their own reservation system, as well as pushing out information to the global distribution system. This system has many benefits. Like, the full record of old customer, agent can search a passenger by name, date and flight no if there is need. Before this system, there was paper or filing system and might be the chance of misplacing. Or when the airport faced any harmful situation, there was a chance of misplacing of all the data. But with the help of this system, there is little bit chance of misplacing. That's why it is very helpful.

FUNCTIONALITY OF PROJECT:

PERFORM RESERVATION::

This Application starts with asking the customer action to be performed. While making reservation first the agent have to enter few of basic details about passenger

Basic Details of Passenger: Details consist of journey either one-way or round trip including departure, destination, selecting date from calendar, total number of passengers with single customer.

Flight Availability: After entering basic details system will show the available flight on the selected date with time

ACTION TO BE PERFORMED

MAKE RESERVATION

CANCEL RESERVATION

SEARCH PASSENGER

Enter Details

☐ Round ...
☐ One Way

From: Karachi
To: Islamabad

Departing on:
Returning On:

Economy Class

Adults: 1
Childrens: None
Infants: None

Continue

Ticket Itinerary And Pricing

Date	Time	Flight Info	Flight Number	Notes
Fri Jan 27 2017	4:00 10:00	Karachi Islamabad	PA-204 Economy Class	A320

Price Per Person: 8000
Total Seats: 3
Total Price: 24000 PKR

Terms And Conditions

Tickets are non-transferable and non-endorsable and are subject to the following terms and conditions (which are subject to change): REPORTING TIME: Flights open for check-in 2 1/2 hours before departure and 90 minutes before the scheduled departure for international flights. CARRY-ON BAGGAGE ALLOWANCE: LIMIT: 1 Carry-On bag per passenger. 10 LOST/DAMAGED BAG COMPENSATION: Maximum liability for damaged or missing baggage is \$20.00 US per kg on international flights as per the difference in the fare. Same fare is not guaranteed. Exchanges are allowed for the same sector only. Fees apply for each passenger. C must be provided for all passengers. NOTICE: Partial Refunds are NOT ALLOWED on connecting flight bookings. TICKET EXPIRATION: Tickets cannot be refunded. CANCELLED OR CHANGED: LIMITED LIABILITY: The maximum airline liability in the event of denied boarding, delay or cancelled flight is limited to the price paid for the ticket. FOR CREDIT/DEBIT CARD PURCHASES - VERIFICATION REQUIRED: The cardholder must present the credit/debit card at any Airblue sales office prior to travel.

☒ I accept the terms and conditions

Continue



Passenger Information

After clicking on the agreed button, this form will appear.

A screenshot of a web form titled "Enter Details of Customer". It contains fields for First Name, Last Name, Date of Birth (Month, Year), Passport #, Email ID (with a dropdown for @gmail.com), Contact #, Age, Departure, and Destination. There is an "Add" button and a "Customer List" section showing "Total Customers: 0".

Passenger List:

Filling in information form will show the passenger list of selected flight.

A screenshot of a web application showing "Ticket Itinerary And Pricing" for a flight from Karachi to Islamabad. It includes a table with flight details (Date, Time, Flight Info, Flight Number, Notes) and a "Customer Details" section listing three customers: IGRA, SADIA, and ANUM. There are "END" and "CONTINUE" buttons at the bottom.

Date	Time	Flight Info	Flight Number	Notes
sat Jan 28 2017	4:00 10:00	Karachi Islamabad	PA-204 Economy Class	A320

Price Per Person: 8000 Total Seats: 3 Total Price: 24000 PKR

Customer Details

CUSTOMER LIST WITH CUSTOMER INFORMATION

CUSTOMER NO:1	FIRST NAME=IGRA	LASTNAME=AKHTAR
CUSTOMER NO:2	FIRST NAME=SADIA	LASTNAME=HAQ
CUSTOMER NO:3	FIRST NAME=ANUM	LASTNAME=HUSSAIN

Generating Tickets:

After successfully entering the details of all passengers, tickets are generated.

A screenshot of a "Message" dialog box titled "AIS AIRLINES". It displays ticket status "RESERVED" and passenger details: ANJUM HUSSAIN, Passport No. BKUTYU9872, Flight 10, Date 12/09/2015, Gate 6, Group 2, Departure 02:30PM, and Boarding Time 05:00PM. There is an "OK" button.

CANCEL RESERVATION:

Action that can be performed are three in total. One to make reservation of new customer, another to cancel reservation, and last one is to search about reserved seats information.

A screenshot of a menu titled "ACTION TO BE PERFORMED" with three buttons: "MAKE RESERVATION", "CANCEL RESERVATION", and "SEARCH PASSENGER". A green arrow points from the "CANCEL RESERVATION" button to the next section.

If the customer wants to cancel his reservation due to any reason then his reservation can be canceled by entering full name.

A screenshot of a form titled "FOR CANCELLING RESERVATION...". It has fields for "FIRST NAME:" and "LAST NAME:" and a "DONE" button.

A screenshot of a "Message" dialog box showing an error message: "PASSENGER DOES NOT EXIST...". There is an "OK" button.

If the customer, whose reservation is to be canceled, is not available in the list then it will show the message "Passenger does not exist".

A screenshot of a "Message" dialog box showing a success message: "CUSTOMER DELETED FROM FILE SUCCESSFULLY". There is an "OK" button.

If the customer, whose reservation is to be canceled, is available in the list then simply it will delete it successfully and print the message "Customer deleted from the file successfully".

FIND PASSENGER DETAILS:

Pressing Search button will show the details of passenger who will travel or who has traveled. In case of wrong entry a message will be printed "passenger does not exist"

FOR DETAILS OF PASSENGER...

Enter ...

FIRST NAME:

LAST NAME:

Search...

For searching a customer details; date ,time ,departure & destination. we can put his/her name and click on the search button.

ACTION TO BE PERFORMED

MAKE RESERVATION

CANCEL RESERVATION

SEARCH PASSENGER

Message

NAME: ANUM HUSSAIN

FROM: karachi ---- TO: Islamabad

D-O-B: 16-MARCH-1997

PASSPORT.NO: BH7YI29837

E-MAIL: anum.hussain@yahoo.com

CONTACT.NO: 3112

AGE: 12

FROM: karachi----TO: Islamabad

OK

COMPOSITION IS USED FOR SAVING PASSENGER HISTORY IN A LIST USING FILING:

Composition is the design technique to implement has-a relationship in classes. We can use **composition** for code reuse

Customer List is composed of no.of passengers. ADD CUSTOMER, FIND CUSTOMER and CANCEL RESERVATION functions all are important in their perspective. From these functions we can add any new passenger information in the list. Although we can delete passenger information from file using cancel reservation

write - Notepad

File Edit Format View Help

ANUM HUSSAIN 23 March 1996 BBHT6784 anum.hussain78@gmail.com 031125447711 20 karachi Islamabad
SADIA HAQ 26 December 1997 BBH342784 sani.haq@gmail.com 03323337700 19 karachi Faislabad
IQRA AKHTAR 19 January 1997 BEEHT666 iqra.akhtar95@yahoo.com 03445623981 20 karachi Islamabad

Customer
<div><div>-firstName : String</div><div>-lastName : string</div><div>-dateOfBirth : int</div><div>-monthOfBirth : String</div><div>-yearOfBirth : int</div><div>-passportNo : String</div><div>-email : String</div><div>-contactNo : long</div><div>-age : int</div><div>-Departure : String</div><div>-Destination : String</div></div>
<div>//constructors, set and get</div> <div>+TicketPrinting() : String</div> <div>+toString() : String</div>



CustomerList
<div>-cList : Customer[]</div> <div>-TotalReservation : int</div>
<div>+addCustomer (String firstName, String lastName, int dateOfBirth, String monthOfBirth, int yearOfBirth, String passPortNo, String email,long contactNo, int age, String Departure, String Destination) : void</div> <div>+adddCustomer(String firstName, String lastName, int dateOfBirth, String monthOfBirth, int yearOfBirth,String passPortNo, String email,long contactNo, int age, String Departure, String Destination) : void</div> <div>+adddCustomer(Customer newcustomer) : void</div> <div>+increaseSize() : void</div> <div>+CancelReservation(String firstName, String lastName) : boolean</div> <div>+cancelReservation(String Departure, String Destination) : boolean</div> <div>+CancelReservation(String PassportNo) : boolean</div> <div>+findCustomer(String firstName, String lastName) : int</div> <div>+findCustomer(String PassportNo) : int</div> <div>+FindCustomer(String Departure, String Destination) : int</div> <div>+Reciept() : String</div> <div>+toString() : String</div> <div>+ADDTOFILE(String firstName, String lastName, int dateOfBirth, String monthOfBirth, int yearOfBirth,String passPortNo, String email,long contactNo, int age, String Departure, String Destination) : void</div> <div>+DeleteFromFile (String firstName,String lastname) : void</div> <div>+DeleteFromFileWithPassport(String passport) : void</div>

METHOD (DELETE PASSENGER) OF CLASS CUSTOMER LIST:

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    if(FirstName.getText()==null)  
    {  
        JOptionPane.showMessageDialog(null, "Please enter first name : ");  
    }  
    else if(LastName.getText()==null)  
    {  
        JOptionPane.showMessageDialog(null, "Please enter last name : ");  
    }  
    String f=FirstName.getText();  
    String l=LastName.getText();  
  
    // CancelReservation(f,l);  
    DeleteFromFile(f,l);  
}
```

After entering customer full name and pressing Search button will work on function of Delete Customer, this function will search passenger from the file and delete it from the list and file too.

```
public void DeleteFromFile (String FirstName,String LastName)  
{  
    try{  
        BufferedReader file = new BufferedReader(new FileReader("C:\\Users\\Hina\\Documents\\NetBeansProjects\\AirportDetails\\AirportDetails.txt"));  
        String line;  
        String input = "";  
        int CheckForTrueValue=0;  
        while ((line = file.readLine()) != null)  
        {  
            if ((line.contains(FirstName))  
                || (line.contains(LastName)))  
            {  
                line = "";  
                JOptionPane.showMessageDialog(null,"PASSENGER RESERVATION IS CANCELLED SUCCESSFULLY"+'\n');  
                CheckForTrueValue++;  
            }  
            input += line + '\n';  
        }  
        if(CheckForTrueValue==0)  
            this.dispose();  
        JOptionPane.showMessageDialog(null, "PASSENGER DOES NOT EXIST "+'\n');  
  
        FileOutputStream fileout = new FileOutputStream("C:\\Users\\Hina\\Documents\\NetBeansProjects\\AirportDetails\\AirportDetails.txt");  
        fileout.write(input.getBytes());  
        fileout.close();  
        file.close();  
    }  
    catch(IOException e)  
    {  
    }  
}
```

USE OF ASSOCIATION:

INTRODUCING NEW FLIGHT

Object of class FLIGHT SCHEDULE is passed as an argument in the function MAKE NEW SCHEDULE of class AIRPORT DETAILS.

```
FlightSchedule bb=new FlightSchedule  
    (336,21,"KARACHI--ISLAMBAD","12-07-2017","04:00PM",3);  
AirportDetails zz =new AirportDetails();  
zz.MakingNewSchedule (bb);
```



```
public void MakingNewSchedule(FlightSchedule ss)  
{  
    System.out.println("for creating new flight schedules:");  
    System.out.println("ENTER DATE:");  
    String date=scan.next();  
    System.out.println("ENTER DEPARTURE:");  
    String departure=scan.next();  
    System.out.println("ENTER DESTINATION:");  
    String destination=scan.next();  
  
    ss.NormalShedule(departure, destination,date);  
}
```

Association is a relationship between two separate classes which can be of any type say one to one, one to many etc

Here whenever new flight is introduced, its object is passed to Airport details. This is how association occurs between class AIRPORT DETAILS and FLIGHT SCHEDULE.

Input given inside the function of MAKE NEW SCHEDULE is passed into a function of NORMAL SCHEDULE to make it a routine flight.

AirportDetails	FlightSchedule
-AirportID : String -City : String -AirportName : String	+FlightNo : int +AirbusNo : int +RouteDescription : string +DepartDate : string +DepartTime : String +JourneyHour : int
<i>// Constructors, set and get</i> +toString() : void +SpecialDiscount : void	+FlightSchedule(int FlightNo, int AirbusNo, String RouteDescription, String DepartDate, String DepartTime, int JourneyHour) +NormalSchedule : String

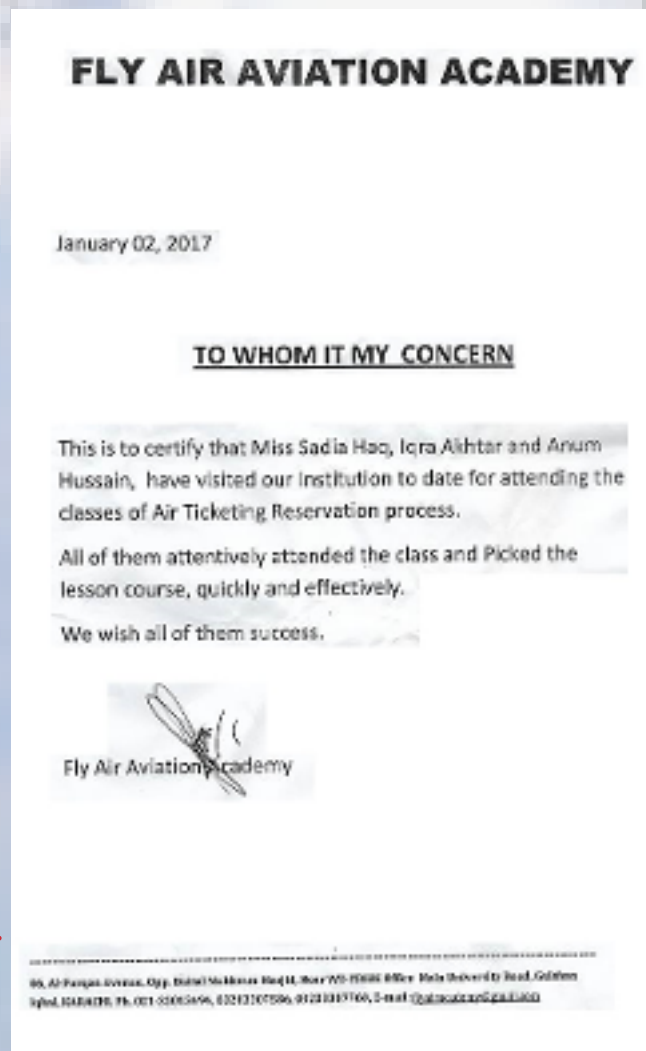
[illegible]



VISIT TO AIR BLUE OFFICE:

When we came up with the idea of our project we decided to visit a Ticket Reservation Office of any Airline so that we can make our minds clear about the system and step by step working of it.

We set up a meeting with an agent of Air blue at Air blue's Reservation Office. He taught us about the system and told the whole procedure what actually happens first and how it continues when a passenger comes for reservation. He detailed us about few basic steps involved in reservation, so that is how we put all the form in series. He told us that sometimes customers come to cancel their reservation so it clicked our mind that there should be an option to cancel the reservation of the customer and remove its details from the customer's list. The agent of Air blue was very cooperative, he answered our all questions and all his answers made our concept clear about the system. The most important thing about a project was to understand it before making or implementing the code. So, we first decided to study the system completely.



TRAINING AT FLY AIR AVIATION ACADEMY:

The agent told us to go for training in an Academy where he has been trained. We worked upon his suggestion and went to an Academy named "Fly Air Aviation Academy". The training session was interesting and very informative. They issued us a letter which confirms the training at "Fly Air Aviation Academy".

