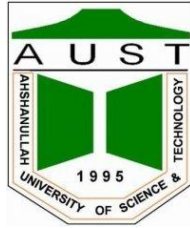


# Ahsanullah University of Science & Technology

*Department of Computer Science & Engineering*



## Airline Reservation System

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Network Programming Lab

**CSE-4226**

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## Reason of Selecting Airline Reservation System

The main aim of our project is to develop a website which would facilitate the reservation of online air tickets through an effective and yet user friendly for a normal passenger intending to travel in airways.

Apart from reserving tickets, through our system a passenger will get a clear view about the pricing to different destinations and can also book tickets anytime. Passengers can also compare online fares 'from' various cities 'to' various cities. They can also visit the website to know about different offers and cost efficiently.

## Intended users

Our project is intended specially for the users, who would like to travel through air and have an Internet access. The project is basically targeted at those people who often travels by air but have to go to the airport to buy tickets at rush hours also. This website will be helpful for the peoples who often travels to different destinations in a short time notice.

Passengers who wants different offers in many destinations will also be benefited through our website. Not only the passengers but also the Administration panel will also be benefited because they can do their job in online.

## Features of our website

The prime features of our project are given below:

1. **Booking Air Tickets online:** Passengers can book tickets through our website anytime.
2. **Searching Available Flights:** Users can search their preferred flights in our website.
3. **e-Ticket:** Passengers can print their ticket from the website, after filling up the form and successful payment.
4. **Sign-Up and login:** Users can register and login for creating their individual profiles and can also enjoy different deals and will get notified about upcoming offers and booking information.
5. **Admin Panel:** Administrator can handle the passengers through admin panel. Admin will manage the upcoming flight schedules and can also remove any flight information if necessary.
6. **Ticket info:** In our website, we have provided all the essential information needed throughout the booking process till the payment of the ticket. The cost of all the tickets for varies destinations are given clearly so that it would be easier for the users.

- 7. Pricing info:** We have clearly shown all the pricing for different class of flight like, business class, economy class, premium class, first class etc. Passengers can book any of them very efficiently.

## Technologies used in our project

Following are the core technologies used in developing our website:

### Server Technologies:

We have used the following server technologies in our project:

#### 1. Web Server: Tomcat

Tomcat is enterprise class, robust web server which comes bundled with Java Servlets and JSP that provides a java application server environment. It adheres to the latest standards, which expands the security features. Configuration, tuning and maintenance are lot easier than compared to other prevailing web servers.

#### 2. Database Server: MySQL

We have added a jar file in the “WebContent/WEB-INF/lib” directory named:  
**mysql-connector-java-5.1.21.jar**

### Software Technologies:

We have used the following technologies for implementation.

#### Java

Java is a widely used programming language expressly designed for use in the distributed environment of the internet. It is the most popular programming language for Android smartphone applications and is also among the most favored for the development of edge devices and the internet of things.

In our project: Login.java, Logout.java, Online\_Reservation.java, Registration.java, Delete.java, FlightInsert.java.

#### Java Server Pages (JSP)

Regular HTML, of course, cannot contain dynamic information. JSP is so easy and convenient that it is quite feasible to augment HTML pages that only benefit marginally by the insertion of small amounts of dynamic data. JSP was designed to work with Java Servlets and JavaBeans in a seamless fashion. It provides applications developers with the capability to cleanly separate content generation from content presentation. This means that Web page designers can work independently from business logic developers, and the end result will work in a distributed, heterogeneous computing environment.

In our project: Admin\_Home.jsp, Admin.jsp, DeleteFlight.jsp, FlightInsert.jsp, LOGIN.jsp, LoginError.jsp, Logout.jsp, On.jsp, Online\_Reservation.jsp, Registration.jsp, Ticket\_Form.jsp, Ticket.jsp

### **Java Servlets**

Java Servlets are server-side technologies that provide a component-based, platform-independent method for building web-based applications. They provide web developers with a simple, consistent mechanism for extending the functionality of a web server and for accessing existing databases. Since our website was more database-centric we found servlets as more appropriate choice.

Servlets have access to the entire family of Java APIs, including the JDBC API to access databases. Servlets can also access a library of HTTP-specific calls and receives all the benefits of the mature Java language, including portability, performance, reusability, and crash protection.

### **JavaScript**

JavaScript was basically used for client-side validation. JavaScript is compatible with all versions of Microsoft Internet Explorer and Netscape Navigator. We have used JavaScript for our logical parts.

### **XML**

XML was mainly used because of its extensibility feature. It had this added advantage of presenting the same content in different formats to different clients.

In our project: web.xml

### **HTML**

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

In our project: index.html, aboutus.html

## **Database of our Project:**

The following gives the various tables and their fields used in our database, which was a major design decision of our project.

**flight\_details** (id, source, destination, depaturedate, departuretime, airlinename, airportname, ticket\_price, seats);

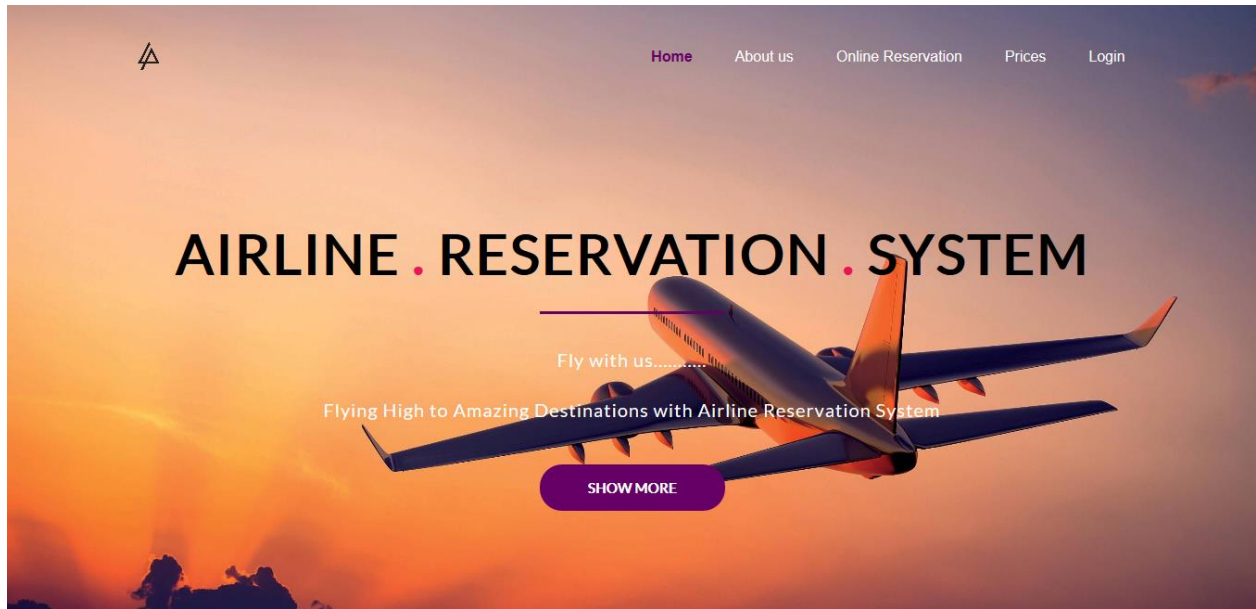
**user** (id, name, gender, age, email, mobile\_no, password);

## Snapshots of our Site:

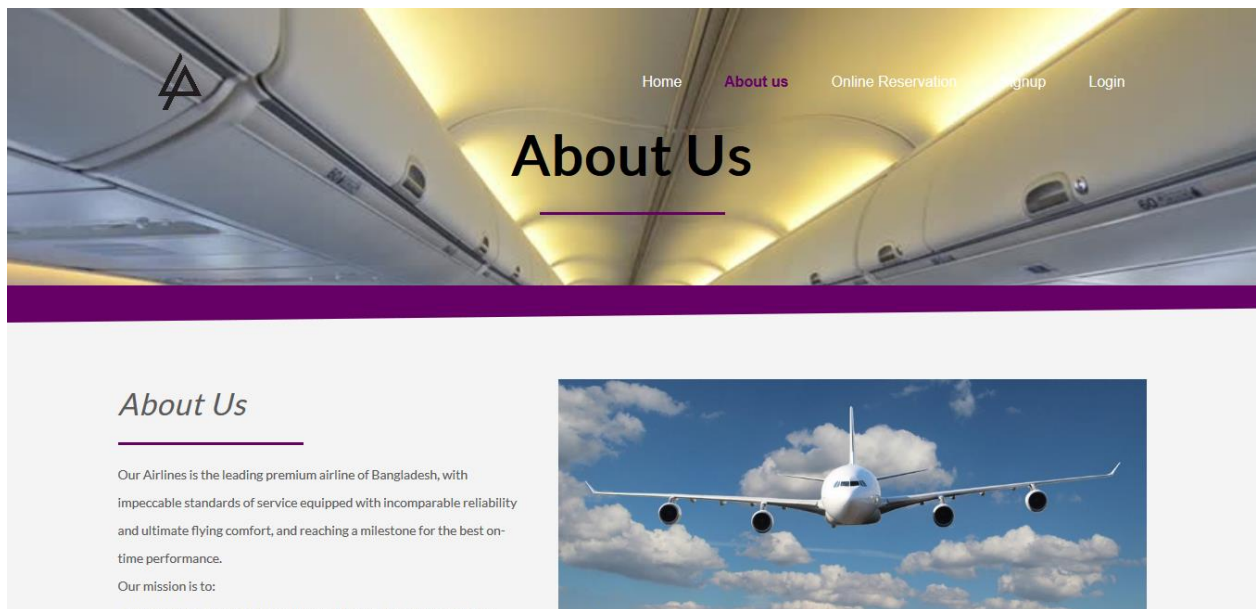
In this section, we have attached some screenshots of our website for a visual representation:

### User Section

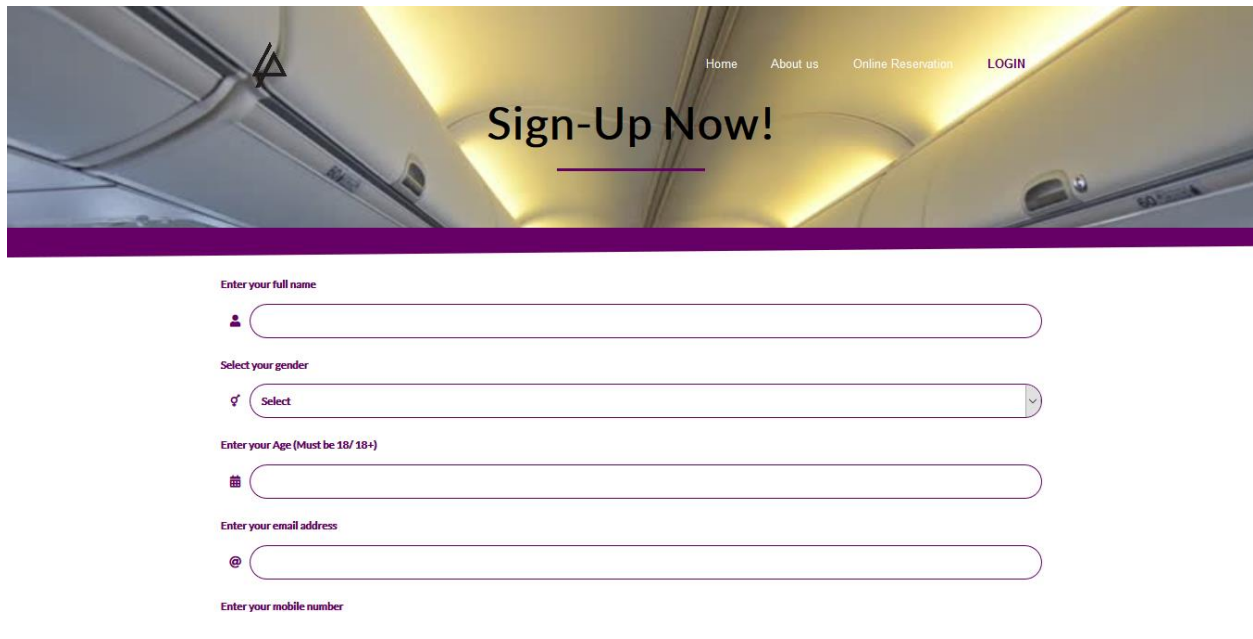
1. Our **Homepage** is given below,



2. This is the **About Us** Section of our website,



3. The **Sign-Up** page is also added. New users can sign-up here!



The image shows a 'Sign-Up Now!' form on a website. The background is a photograph of an airplane cabin interior with overhead lights. The form is centered and has a purple header bar. The text 'Sign-Up Now!' is prominently displayed in the center. Below the header, there are five input fields with labels and icons: 'Enter your full name' (with a person icon), 'Select your gender' (with a gender icon and a dropdown menu), 'Enter your Age (Must be 18/ 18+)' (with a calendar icon), 'Enter your email address' (with an '@' icon), and 'Enter your mobile number' (with a phone icon). Each field is a rounded rectangle with a purple border.

Sign-Up Now!

Enter your full name

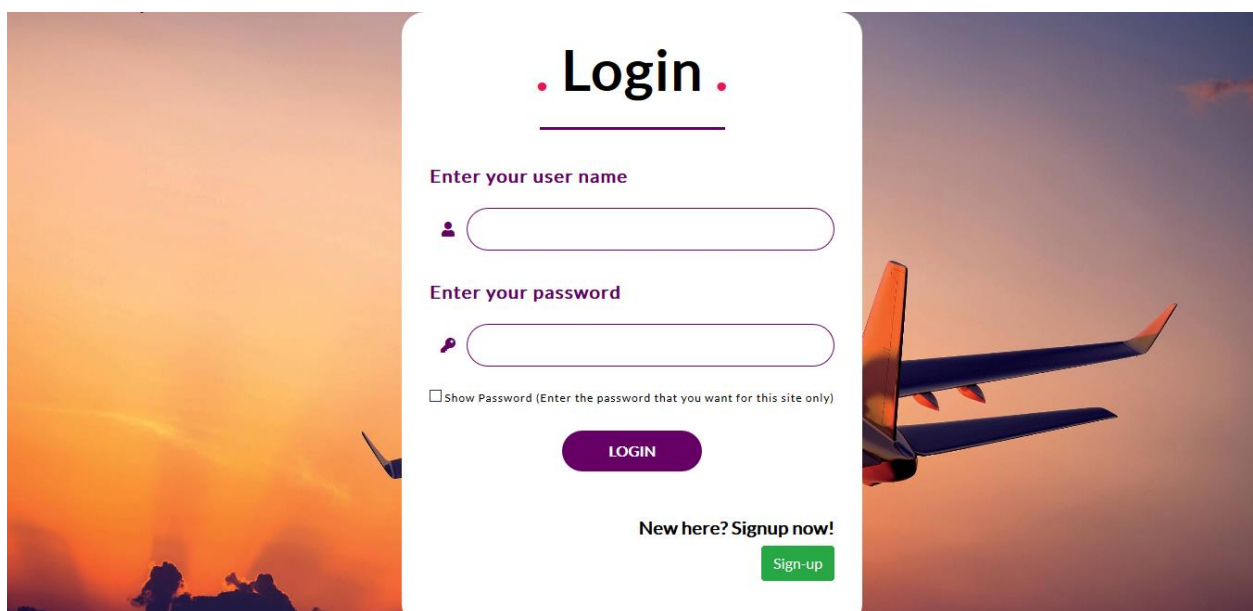
Select your gender

Enter your Age (Must be 18/ 18+)

Enter your email address

Enter your mobile number

4. **Login page** is the one in which a registered user can login to his/her account.



The image shows a 'Login' form on a website. The background is a photograph of an airplane wing against a sunset sky. The form is centered and has a white background with a purple header bar. The text 'Login' is prominently displayed in the center. Below the header, there are two input fields with labels and icons: 'Enter your user name' (with a person icon) and 'Enter your password' (with a key icon). Below the password field, there is a checkbox labeled 'Show Password (Enter the password that you want for this site only)'. Below the input fields, there is a purple 'LOGIN' button. At the bottom, there is a link 'New here? Signup now!' with a green 'Sign-up' button next to it.

Login

Enter your user name

Enter your password

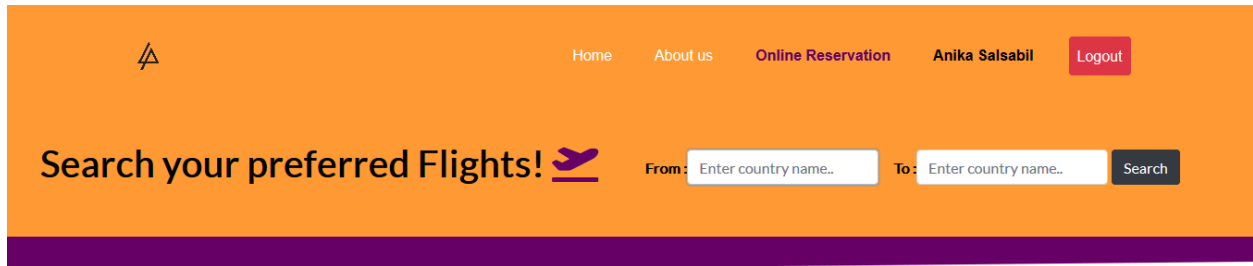
☐ Show Password (Enter the password that you want for this site only)

LOGIN

New here? Signup now!

Sign-up

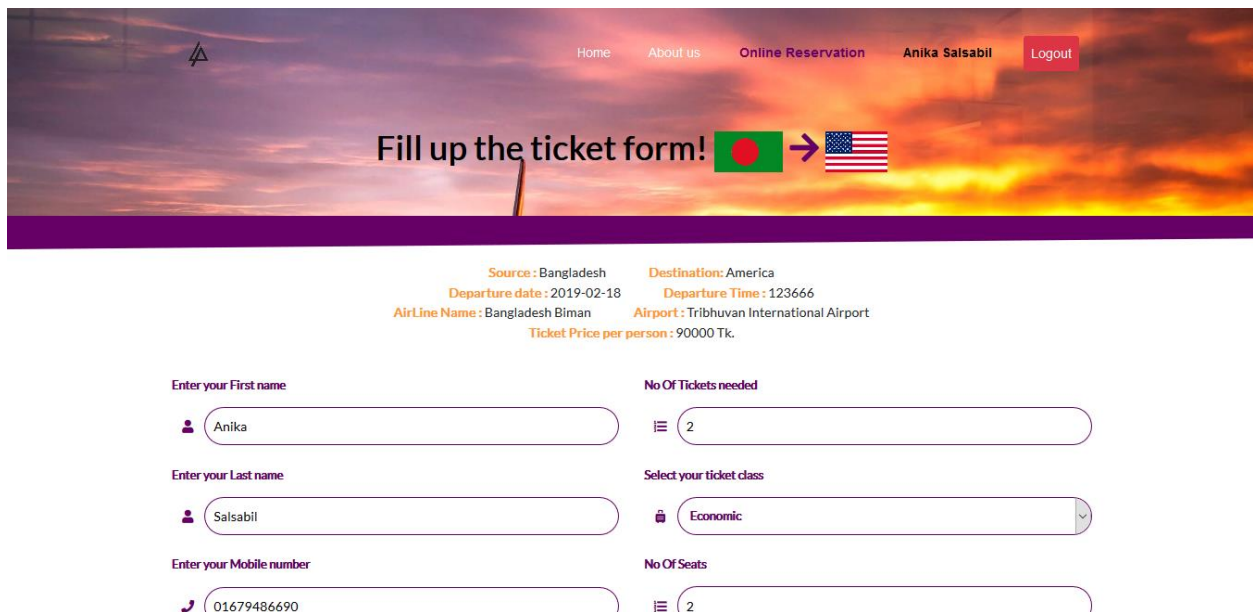
5. After login, we will be able to search our preferred flights from the **Online Reservation** page:





The screenshot shows the 'Online Reservation' page with a search bar and a table of flight options. The search bar has fields for 'From' and 'To' (both labeled 'Enter country name..') and a 'Search' button. The table lists flights from Bangladesh to various destinations.

Source	Destination	Departure Time	Departure Date	Ticket Price	Airport Name	AirLine Name
Bangladesh	America	123666	2019-02-18	90000	Bangladesh Biman	Tribhuvan International Airport
Bangladesh	Pakistan	1:30	2019-03-18	44000	United Airways	Suvarnabhumi Airport
Bangladesh	India	2pm	2019-03-18	30,000	Indian Airways	India Airport
Bangladesh	Nepal	11:45	2019-02-14	40000	Subarnabhumi Airport	Qatar Airways
Bangladesh	China	12:15	2019-02-14	80000	Indira Gandhi International Airport	Air India

6. After selecting the preferred flight, we have to fill-up the following form for reservation:



The screenshot shows the 'Fill up the ticket form!' page with a sunset background. It includes a header with navigation links and a form for reservation details.

**Fill up the ticket form!**  → 

Source : Bangladesh      Destination: America  
 Departure date : 2019-02-18      Departure Time : 123666  
 AirLine Name : Bangladesh Biman      Airport : Tribhuvan International Airport  
 Ticket Price per person : 90000 Tk.

Enter your First name:

No Of Tickets needed:


Enter your Last name:

Select your ticket class:


Enter your Mobile number:

No Of Seats:

7. After purchasing a ticket we will have this following page in our website,



Please print your Air ticket and bring it with you on your destined time! 


[Print Air Ticket](#)

 **Air India**

Booked by: Airline Reservation System Website

**Name:** Anika Salsabil

<b>From:</b> Bangladesh 	<b>Airport Name:</b> Indira Gandhi International Airport
<b>To:</b> China 	<b>Class:</b> Economic
<b>Departure Time:</b> 12:15	<b>Seat No:</b> 2
<b>Departure Date:</b> 2019-02-14	<b>Ticket Price:</b> 80000 Tk.

  
(001 0 012345 980000001 8)

BOARDING GATE WILL BE CLOSED BEFORE 15 MINUTES OF THE DEPARTURE.


## Admin Panel

1. This is our **Admin Login** page:


# AIRLINE . RESERVATION . SYSTEM

Welcome to Admin Panel

Enter your admin username



Enter your password



☐ Show Password (Enter the password that you want for this site only)


[Log-in](#)


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DESIGNED BY Anika . Fariha . Ashiq



## 2. The **Welcome** page of the Admin panel:

 Airline Reservation System Options ▾

 Add a new Flight

 Delete an existing Flight

### Welcome to Admin Panel


Its an admin-specific platform in an application that allows for access and manipulation of data within the user interface of the site. The admin panel can help user-related functions, such as providing insight into user behavior, dealing with profiles that violate the site's terms and conditions, and tracking transactions. But you should know that admin sites are not just limited to user-related tasks.


A well-built admin panel will increase productivity, give insight into data, and help you catch bugs; adding up to greater revenue for your business. By investing in the admin panel early, you are going to build your application much more efficiently and allow your team to do what they need to make your business grow.


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DESIGNED BY Anika · Fariha · Ashiq

## 3. Adding **flight** section in admin panel:

 Airline Reservation System Options ▾

 Add a new Flight

 Delete an existing Flight

### Fill up this form to add a new flight

Source :

Destination:

Departure date :

Departure Time :


AirLine Name :


Airport :


Ticket Price per person :

Number of Seat :

#### 4. Available Flights list and removing flight section:

 Airline Reservation System Options ▾

 Add Flight

 Delete Flight

### Available Flights

ID	Source	Destination	Departure Time	Departure Date	Ticket Price	Airport Name	AirLine Name
8	Bangladesh	America	12:36:55	2019-02-18	90000	Bangladesh Biman	Tribhuvan International Airport
9	Bangladesh	Pakistan	1:30	2019-03-18	44000	United Airways	Suvarnabhumi Airport
19	Bangladesh	Nepal	11:45	2019-02-14	40000	Subarnabhumi Airport	Qatar Airways
20	Bangladesh	China	12:15	2019-02-14	80000	Indira Gandhi International Airport	Air India
21	Bangladesh	Bangkok	11:10	2019-02-14	40000	Kansai International Airport	Air China
22	Bangladesh	Australia	11:45	2019-02-14	50000	Sydney Airport	Singapore Airlines
23	Bangladesh	Singapore	11:45	2019-02-14	80000	Kansai International Airport	Singapore Airlines

Enter ID:

Delete

## Future Plan

We have tried our level best to make a user friendly and convenient website for the passengers who seek to have air tickets. We tried to make it dynamic and helpful. Our future plan is to add some features and develop this website into a mobile application so that it can be more serviceable for the users.

## Discussion

In this project we have got the clear knowledge about Java Servlets and JSP. We have known how efficiently we can work with it and we have also gained knowledge about dynamic website development through it. We will try to make our website more dynamic and productive for the user.