FlyAway
(Project Specification)

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Purpose	Project Specification and Sprint Details
Date	20th November 2022
Version	1.0

Version History:

Contents

1. Modules in the project

- Search form for flight booking
- Lists of Flights based on search
- User Registration Form with payment gateway
- Admin Login page
- Master List of All Flights

2. Sprint Work Details:

Sprint Number	Modules Covered
1	Search Form for Flight booking Lists of Flights based on search
2	User Registration Form with payment gateway
3	Admin Login Page Master List of All Flights

3. GITHUB link:

GitHub Repository:
FlyAnyway
GitHub link:
https://github.com/indranilghosal1996/FlyAnyway.git

4. Project Code:

Folder Structure:
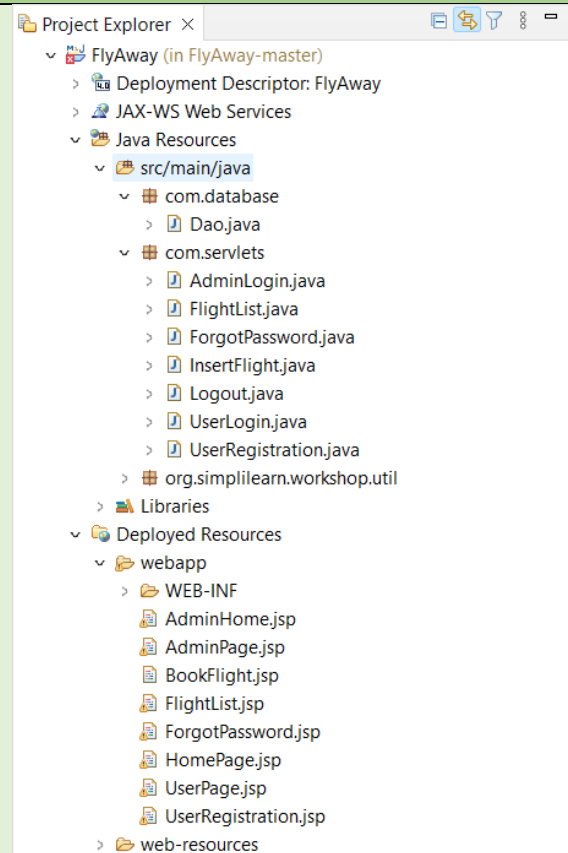
Dao.java

```java
package com.database;

import java.sql.Connection;
import java.sql.DriverManager;

import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;

import org.simplilearn.workshop.util.StringUtil;


public class Dao {
    public Connection con=null;
    public Statement st=null;

    public Dao() throws ClassNotFoundException, SQLException{
        Class.forName("com.mysql.cj.jdbc.Driver");

        con=DriverManager.getConnection("jdbc:mysql://localhost:3306/flyaway
","root","usha");
        System.out.println("connection established with database");
```

```java
            st=con.createStatement();
        }
public List<String[]> getAvailableFlights(String f, String t, String d) {

            List<String[]> flights=new ArrayList<>();
            String query="SELECT * FROM flyaway.flights where
fromf='"+f+"' and tof='"+t+"' and datef='"+d+"'";
            try {
                    ResultSet rs=st.executeQuery(query);

                    if(rs.next()) {
                            String[] flight=new String[3];
                            flight[0]=rs.getString("name");
                            flight[1]=rs.getString("timef");
                            flight[2]=rs.getString("price");
                            flights.add(flight);
                            return flights;
                    }


            } catch (SQLException e) {
                    e.printStackTrace();
            }

            return null;
        }

public HashMap<String, String> checkUser(String email, String password) {

        HashMap<String,String> user=null;
        String query="select * from user where email='"+email+"' and
password='"+password+"'";
        try {
                ResultSet rs=st.executeQuery(query);
                if(rs.next()) {
                        user=new HashMap<>();
                        user.put("name", rs.getString("name"));
                        user.put("email",rs.getString("email"));
                        user.put("phno",rs.getString("phno"));
                        user.put("adno",rs.getString("adno"));
                }
                return user;
        } catch (SQLException e) {
                e.printStackTrace();
        }

        return user;
}

public boolean insertUser(HashMap<String, String> user) {

        String query="INSERT INTO user (email, password, name, phno, adno)
values('"+user.get("email")+"','"+user.get("password")+"','"+user.get("nam
e")+"','"+user.get("phno")+"','"+user.get("adno")+"')";
```

```java
      try {
            st.execute(query);
            return true;
      } catch (SQLException e) {
            e.printStackTrace();
      }
      return false;
}

public boolean checkAdmin(String email, String password) {

      try {
            ResultSet rs=st.executeQuery("select * from admin where
email='"+email+"' and password='"+password+"'");
            if(rs.next())
                  return true;
      } catch (SQLException e) {
            e.printStackTrace();
      }
      return false;
}

public boolean changeAdminPassword(String email, String password) {

      try {
            ResultSet rs=st.executeQuery("select * from admin where
email='"+email+"'");
            if(!rs.next()) {
                  return false;
            }
            st.execute("update admin set password='"+password+"' where
email='"+email+"'");
            return true;
      } catch (SQLException e) {
            e.printStackTrace();
      }
      return false;
}

public boolean insertFlight(HashMap<String, String> flight) throws
SQLException {
      //PreparedStatement stm=con.prepareStatement("INSERT INTO
'flyaway.flights' ('name', 'from', 'to', 'date', 'time', 'price')
values(?,?,?,?,?,?)");
      //String sql="INSERT INTO flights
('name','from','to','date','time','price')
values('"+flight.get("name")+"','"+flight.get("from")+"','"+flight.get("to
")+"','"+flight.get("date")+"','"+flight.get("time")+"','"+flight.get("pri
ce")+"');";
      String query1 = "INSERT INTO flights (name, fromf, tof, datef,
timef, price) VALUES" + " ('"
                  + StringUtil.fixSqlFieldValue(flight.get("name")) + "',"
+ " '" + StringUtil.fixSqlFieldValue(flight.get("from")) + "'," + " '"
```

```java
                    + StringUtil.fixSqlFieldValue(flight.get("to")) + "'," +
" '" + StringUtil.fixSqlFieldValue(flight.get("date")) + "'," + " '"
                    + StringUtil.fixSqlFieldValue(flight.get("time")) + "',"
+ " '" + StringUtil.fixSqlFieldValue(flight.get("price")) + "')";

        //String sql="INSERT INTO `flyaway`.`flights` (`name`, `fromf`,
`tof`, `datef`, `timef`, `price`) VALUES ('indigo', 'hyd', 'viz', '2021-
04-08', '10:00', '2000');";
        System.out.println(flight.get("date"));
        System.out.println(flight.get("time"));
        //String query1="INSERT into flyaway.flights
(name,from,to,date,time,price) values('indigo','hyd','viz','24-02-
2022','10:30','2000')";
        try {
            //stm.execute();
            st.execute(query1);
            return true;
        } catch (SQLException e) {
            System.out.print("error");
            e.printStackTrace();
        }
        return false;
    }
}
```

AdminLogin.java

```java
package com.servlets;

import java.io.IOException;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;



@WebServlet("/AdminLogin")
public class AdminLogin extends HttpServlet {
    private static final long serialVersionUID = 1L;

protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

        String email=request.getParameter("email");
            String password=request.getParameter("password");

            try {
                Dao dao=new Dao();
```

```java
                    if(dao.checkAdmin(email,password)) {
                            response.sendRedirect("AdminHome.jsp");
                    }
                    else {
                            HttpSession session=request.getSession();
                            session.setAttribute("message", "Invalid
Details");

                            response.sendRedirect("AdminPage.jsp");
                    }
            } catch (ClassNotFoundException | SQLException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            }

        }

}
```

```java
package com.servlets;


import java.io.IOException;
import java.sql.SQLException;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;

@WebServlet("/FlightList")
public class FlightList extends HttpServlet {
      private static final long serialVersionUID = 1L;

      protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException, IOException {

            String from=request.getParameter("from");
            String to=request.getParameter("to");
            String departure=request.getParameter("departure");

            try {
                  Dao dao = new Dao();
                  List<String[]> flights=dao.getAvailableFlights(from, to,
departure);

                  HttpSession session=request.getSession();
                  session.setAttribute("flights", flights);

            } catch (ClassNotFoundException | SQLException e) {
                  // TODO Auto-generated catch block
```

```java
            e.printStackTrace();
        }
        response.sendRedirect("FlightList.jsp");
    }
}
```

ForgotPassword.java

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import java.io.IOException;
import java.sql.SQLException;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;
@WebServlet("/ForgotPassword")
public class ForgotPassword extends HttpServlet {
    private static final long serialVersionUID = 1L;
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

        String email=request.getParameter("email");
        String password=request.getParameter("password");

        try {
            Dao dao=new Dao();
            HttpSession session=request.getSession();
            if(dao.changeAdminPassword(email,password)) {
                session.setAttribute("message", "Password Changed
Successfully");
            }
            else {
                session.setAttribute("message", "Invalid
Details");
            }
        } catch (ClassNotFoundException | SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
        response.sendRedirect("AdminPage.jsp");

    }

}
```

InsertFlight.java

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
```

```java
import java.io.IOException;
import java.sql.SQLException;
import java.util.HashMap;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;


@WebServlet("/InsertFlight")
public class InsertFlight extends HttpServlet {
    private static final long serialVersionUID = 1L;
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

        String name=request.getParameter("name");
        String from=request.getParameter("from");
        String to=request.getParameter("to");
        String departure=request.getParameter("departure");
        String time=request.getParameter("time");
        String price=request.getParameter("price");

        HashMap<String,String> flight=new HashMap<>();
        flight.put("name", name);
        flight.put("from", from);
        flight.put("to", to);
        flight.put("date", departure);
        flight.put("time", time);
        flight.put("price", price);

        try {
            Dao dao=new Dao();
            HttpSession session=request.getSession();
            if(dao.insertFlight(flight)) {

                session.setAttribute("message", "Flight Added
Successfully");
            }
            else {
                session.setAttribute("message", "Invalid
Details");
            }
        } catch (ClassNotFoundException | SQLException e) {
            // TODO Auto-generated catch block
            System.out.print("error");
            e.printStackTrace();
        }
        response.sendRedirect("AdminHome.jsp");

    }
```

```
}
```

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import java.io.IOException;
import java.sql.SQLException;
import java.util.HashMap;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;


@WebServlet("/InsertFlight")
public class InsertFlight extends HttpServlet {
      private static final long serialVersionUID = 1L;
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

            String name=request.getParameter("name");
            String from=request.getParameter("from");
            String to=request.getParameter("to");
            String departure=request.getParameter("departure");
            String time=request.getParameter("time");
            String price=request.getParameter("price");

            HashMap<String,String> flight=new HashMap<>();
            flight.put("name", name);
            flight.put("from", from);
            flight.put("to", to);
            flight.put("date", departure);
            flight.put("time", time);
            flight.put("price", price);

            try {
                  Dao dao=new Dao();
                  HttpSession session=request.getSession();
                  if(dao.insertFlight(flight)) {

                        session.setAttribute("message", "Flight Added
Successfully");
                  }
                  else {
                        session.setAttribute("message", "Invalid
Details");
                  }
            } catch (ClassNotFoundException | SQLException e) {
                  // TODO Auto-generated catch block
                  System.out.print("error");
```

```java
                e.printStackTrace();
            }
            response.sendRedirect("AdminHome.jsp");

    }

}
```

UserLogin.java

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import java.io.IOException;
import java.sql.SQLException;
import java.util.HashMap;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;
@WebServlet("/UserLogin")
public class UserLogin extends HttpServlet {
    private static final long serialVersionUID = 1L;
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

        String email=request.getParameter("email");
        String password=request.getParameter("password");

        try {
            Dao dao=new Dao();
            HashMap<String,String>
user=dao.checkUser(email,password);
            HttpSession session=request.getSession();
            if(user!=null) {
                session.setAttribute("user", user);
                response.sendRedirect("HomePage.jsp");
            }
            else {
                session.setAttribute("message", "Invalid
Details");

                response.sendRedirect("UserPage.jsp");
            }
        } catch (ClassNotFoundException | SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }

}
}
```

UserRegistration.java

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import java.io.IOException;
import java.sql.SQLException;
import java.util.HashMap;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import com.database.Dao;

@WebServlet("/UserRegistration")
public class UserRegistration extends HttpServlet {
	private static final long serialVersionUID = 1L;
	protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException, IOException {
		String email=request.getParameter("email");
		String password=request.getParameter("password");
		String name=request.getParameter("name");
		String phno=request.getParameter("phno");
		String adno=request.getParameter("adno");

		HashMap<String,String> user=new HashMap<>();
		user.put("email", email);
		user.put("password", password);
		user.put("name", name);
		user.put("phno", phno);
		user.put("adno", adno);

		try {
			Dao dao=new Dao();
			boolean result=dao.insertUser(user);
			HttpSession session=request.getSession();
			if(result) {
				session.setAttribute("message", "User Added
Successfully");
			}
			else {
				session.setAttribute("message","Invalid Details");
			}
		} catch (ClassNotFoundException | SQLException e) {
			// TODO Auto-generated catch block
			e.printStackTrace();
		}
		response.sendRedirect("UserPage.jsp");
	}

}
```

AdminHome.jsp
```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
```

```jsp
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Home</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<center>
<h1>Insert New Flight Details</h1>

<div style="border:3px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=InsertFlight method=post>
        <label for=name>Name :-</label> <input type="text" name=name id=name
/><br><br>
        <label for=from>From :-</label> <input type="text" name=from id=from
/><br><br>
        <label for=to>To :-</label> <input type="text" name=to id=to
/><br><br>
        <label for=departure>Departure :-</label> <input type="date"
name=departure id=departure /><br><br>
        <label for=time>Time :-</label> <input type="time" name=time id=time
/><br><br>
        <label for=price>Price :-</label> <input type="text" name=price
id=price /><br><br>
        <input type=submit value=submit /> <input type=reset />
</form>
</div>
</center>
<%
        String message=(String)session.getAttribute("message");
        if(message!=null){
%>
<p style="color:silver;"><%=message %></p>
<%
            session.setAttribute("message", null);
        }
%>
</body>
</html>
```

AdminPage.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Page</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<center>
<h2>Admin Login</h2>
```

```
<div style="border:3px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=AdminLogin method=post>
        <label for=email>Email :-</label> <input type="email" name=email
id=email /><br><br>
        <label for=pass>Password :-</label> <input type="password"
name=password id=pass /><br><br>
        <input type=submit value=submit /> <input type=reset />
</form>
</div>
</center><br>
<a href=ForgotPassword.jsp style="font-size:25;color:red;">Forgot
Password</a>

<%
        String message=(String)session.getAttribute("message");
        if(message!=null){
%>
<p style="color:silver;"><%=message %></p>
<%
            session.setAttribute("message", null);
        }
%>
</body>
</html>
```

BookFlight.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<%@ page import="java.util.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>FlyAway</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>

<%
        @SuppressWarnings("unchecked")
        HashMap<String,String>
user=(HashMap<String,String>)session.getAttribute("user");
        if(user==null){
            response.sendRedirect("UserPage.jsp");
        }
%>
<p align="center"  style="color:green;font-size:40px;font-
weight:bold">Flight Booked Successfully</p>
</body>
</html>
```

FlightList.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<%@ page import="java.util.*" %>
<html>
```

```
<head>
<meta charset="ISO-8859-1">
<title>Flight List</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<%
      @SuppressWarnings("unchecked")
      List<String[]>
flights=(List<String[]>)session.getAttribute("flights");
      if(flights!=null){
%>

<h1>Available Flights</h1>

<center>
<table border="1">
<tr>
      <th>Name</th>
      <th>Time</th>
      <th>Price</th>
</tr>



<%
      for(String[] flight:flights){
%>

<tr>
<td><%=flight[0]%></td>
<td><%=flight[1]%></td>
<td><%=flight[2]%></td>
</tr>
</table>
</center>
<center><a href=BookFlight.jsp>Book Now</a> </center>
<%
      }
%>


<%
      }
      else{
%>
<h1>There are no available flights</h1>
<%
      }
%>
</body>
</html>
```

ForgotPassword.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
```

```
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<center>
<div style="border:3px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=ForgotPassword method=post>
        <label for=email>Email :-</label> <input type="email" name=email
id=email /><br><br>
        <label for=pass>New Password :-</label> <input type="password"
name=password id=pass /><br><br>
        <input type=submit value=submit /> <input type=reset />
</form>
</div>
</center>
</body>
</html>
```

HomePage.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<%@ page import="java.util.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>FlyAway</title>
</head>
<body >
<h1>FlyAway</h1>

<div align="right">
<a href="AdminPage.jsp">Admin Login</a>
</div>


<%
    @SuppressWarnings("unchecked")
    HashMap<String,String>
user=(HashMap<String,String>)session.getAttribute("user");
    if(user!=null){
%>
<p>Welcome <%=user.get("name") %></p>
<a href="Logout">Logout</a>
<%
    }else{
%>
<a href=UserPage.jsp>User Login</a>
<%
    }
%>
<br><br>
<center>
<div style="border:5px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=FlightList method=post>
        <label for=from>From :-</label> <input type=text name=from
id=from/><br><br>
```

```
        <label for=to>To :-</label> <input type=text name=to id=to/><br><br>
        <label for=departure>Departure :-</label> <input type=date
name=departure id=departure/><br><br>
        <label for=travellers>Travellers :-</label> <input type=number
name=travellers id=travellers/><br><br>
        <input type=submit value=Search /> <input type=reset />
</form>
</div>
</center>
</body>
</html>
```

UserPage.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<center>
<h2>User Login</h2>
<div style="border:2px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=UserLogin method=post >
    <table >
    <tr>
    <td><label for=email>Email</label><br></td>
    <td><input type="email" name=email id=email /></td>
    </tr>
    <tr>
    <td><label for=pass>Password</label><br></td>
    <td><input type="password" name=password id=pass /></td>
    </tr>

    <tr>
    <td><input type=submit value=submit /></td>
    <td><input type=reset /></td>
    </tr>
    </table>

</form>
</div>
</center>
<br><br>
<i>New User-Create account</i>
<h4><a href=UserRegistration.jsp style="font-size:25;color:red;">Create
Account</a></h4>

<%
    String message=(String)session.getAttribute("message");
    if(message!=null){
%>
<p style="color:silver;"><%=message %></p>
<%
        session.setAttribute("message", null);
```

```
            }
%>
</body>
</html>
```

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body >
<br>
<a href=HomePage.jsp style="color:black;text-decoration:none ;font-
size:35px;font-weight:bold;">FlyAway</a>
<br><br>
<center>
<div style="border:3px solid black;width:25%;border-
radius:20px;padding:20px" align="center">
<form action=UserRegistration method=post>
        <label for=email>Email :-</label> <input type="email" name=email
id=email /><br><br>
        <label for=pass>Password :-</label> <input type="password"
name=password id=pass /><br><br>
        <label for=name>Name :-</label> <input type="text" name=name id=name
/><br><br>
        <label for=phno>Phone No. :-</label> <input type="text" name=phno
id=phno /><br><br>
        <label for=adno>Aadhaar No. :-</label> <input type="text" name=adno
id=adno /><br><br>
        <input type=submit value=submit /> <input type=reset />
</form>
</div>
</center>
</body>
</html>
```