A mini project report on

AIRLINE RESERVATION SYSTEM

For the award of the degree

of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

(III Year -I Semister)

APPLICATION DEVELOPMENT LAB

submitted by

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

S.R.K.R ENGINEERING COLLEGE (A)

ChinnaAmiram,Bhimavaram,west Godavari Dt.,

[2019 – 2020]

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

S.R.K.R ENGINEERING COLLEGE

BHIMAVARAM

CERTIFICATE

This is to certify that this is a bonafide work on "**AIRLINE RESERVATION SYSTEM**" and has been submitted by Miss.A.Devi Sai Srija(17B91A0501) and Miss.A.Kezia Jasmine (17B91A0507), in partial fulfillment of therequirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering, during the academic year 2019-2020. The candidate worked right under my Supervision and guidance.

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TABLE OF CONTENTS

ABSTRACT

The project titled Airlines Reservation System is purpose of the Development of AIRLINES RESERVATION SYSTEM is a complex online distributed transaction based on client server architecture.

The salient features of the software include allowing user from anywhere to do a booking for a journey in a Airlines from anywhere to anywhere, handling reservations like modifications and cancellations.

The overall strategic business objective of ARS is to build loyal profitable customer relationships. Customer acquisition and retention are many points to consider. Customer relationship management is a new concept to many organizations. The most forward-thinking organizations devote a lot of energy and resources to the set up and management of a customer relationships management capability.

Customer is the key driving force and all the activities are planned keeping in mind the customer's preferences. This System gives high quality services to customers, for them to be competitive in their market. Understanding customer's business process and provide the best solutions and services using the latest technologies the quality matches international standards terms of precision and timely executions.

Customer segmentation-Airlines need to recognize the mileage based segmentation is in adequate, whereas value based and needs-based approaches can help guide investment decisions and drive greater inside into the needs of high-valued customers.

As airlines grapple with how to deliver a consistent and distinctive customer experience while maintain low operating costs, they turn to the promise of ARS. ARS gradually come back into focus as airlines recognize the importance of effective customer management in establishing long term competitive advantage.

1. MODULES

1.1 ADMIN MODULE

In this module the admin logins into the system page.

1.2 REGISTRATION MODULE

* Authentication.

1. Username and password is given

2. If correct goes to another page if wrong shows error.

3. Verifies the credentials with database and logs in if true.

* Adding and Removing

1. All users data is given.

2. Update database with borrower data.

3. Delete borrower data from database

4. Delete the User data from database.

1.3 LOGIN MODULE

* Authentication

1. Email and password from registered data

2. If true goes to another page if wrong shows error.

3. Verifies the credentials with database and logs in if true

* Registration

1. All fields are required for registration

2. Registration success

3. Update details of user into data base

1.4 Flight details Module

The flight details specify how many flights are available at that time from one place to another.

1.5 Booking details Module

The customer can book the tickets on his own. Following are is a list of non-functional requirements to be supported.

2.SOFTWARE REQUIREMENT SPECIFICATIONS

2.1 PURPOSE

The purpose of the Development of AIRLINES RESERVATION SYSTEM is a complex online distributed transaction based on client server architecture.The salient features of the software include allowing user from anywhere to do a modifications and cancellations

2.2 SCOPE

The overall strategic business objective of ARS is to build loyal profitable customer relationships. Customer acquisition and retention are many points to consider. Customer relationship management is a new concept to many organizations. The most forward-thinking organizations devote a lot of energy and resources to the set up and management of a customer relationships management capability.

2.3 OBJECTIVE

The main objective of this project is to make the transaction easy and reduce time to maintain data

2.4 EXISTING SYSTEM

In the existing system data is entered manually. When records are accessed frequently managing such records difficult. Therefore organizing data becomes difficult.

Disadvantages

- Modifications are complicated
- Much time consuming

2.5 PROPOSED SYSTEM

The proposed system is better and more efficient than existing system by overcome all the drawbacks of the present system to permanent solution to them. The primary aim of the new system is to speed up the transactions. User friendliness is another peculiarity of the proposed system.

Advantages

- Processing time can be minimized.
- Simple and easy to manage.
- Faster and more accurate.

2.6 REQUIREMENT ANALYSIS

Analysis focuses on producing a model of the system called the analysis model, which is correct, complete, consistent and verifiable. Analysis model is composed mainly of three individual models.

*Functional model

*Analysis object model

* Analysis dynamic model

The functional model represents the use of case diagrams, the object model with class diagram and the dynamic model with state chart and sequence diagrams**.**

2.7 FUNCTIONAL REQUIREMENTS

The main functionalities of this system are

Every customer who would like to use the airlines have to register himself first.

The flight details specify how many flights are available at that time from one place to another.

A customer who wants flight can book this ticket.

If a customer wants to drop the journey he can cancel the tickets.

2.8 NON-FUNCTIONAL REQUIREMENTS

It explains the user visible aspects of a system. The non-functional requirements are:

2.8.1 RELIABILITY

This system is more reliable and effective because of the quality of service to the user.

2.8.2 COST

The cost of the product development and maintainance is minimum.

2.8.3 PERFORMANCE

It specifies the how much time is required to give the response.

2.8.4 SUPPORTABILITY

Java Data Base Connection supports the system.

2.8.5 SECURITY

1. It specifies what level of security is required. It requires the low level security and the high level security.

2.9 PSEUDO REQUIREMENTS:

2.9.1 SOFTWARE REQUIREMENTS

Operating System : windows7
Programming language : java
webServer : Apache Tomcat 6.0
Server side scripting : JAVA/JSP

2.9.2 HARDWARE REQUIREMENTS

Processor : Intel P-I IV
RAM : 512MB (min)

Hard Disk : 10GB

3.DATABASE CONNECTIVITY

Table 3.1: LOGIN

NAME	Constraints	Data Type
Mobile	Not null	Varchar2(10)
Password	Not null	Varchar2(15)
Types	Not null	Varchar2(20)
Visits	Not null	Number(5)

Table 3.2: PROFILES

NAME	Constraints	Data Type
Mobile	Not null	Varchar2(10)
CName	Not null	Varchar2(20)
Birthdate	Not null	Varchar2(20)
Gender	Not null	Varchar2(6)
Email	Not null	Varchar2(40)
Image	Not null	Varchar2(40)

Table 3.3: AIRPORTS

NAME	Constraints	Data Type
Code	Not null	Varchar2(5)
Name	Not null	Varchar2(100)
City	Not null	Varchar2(30)
Longitude	Not null	Varchar2(30)
Latitude	Not null	Varchar2(30)
Type	Not null	Varchar2(30)

Table 3.4: FLITES

NAME	Constraints	Data Type
Code	Not null	Number(5)
Path	Not null	Varchar2(50)
Time	Not null	Varchar2(5)
Days	Not null	Varchar2(16)
Seats	Not null	Varchar2(3)
Distance	Not null	Number(6)
Startingdate	Not null	Varchar2(10)

Table 3.5: JOURNIES

NAME	Constraints	Data Type
Code	Not null	Number(10)
Flitecode	Not null	Number(5)
Journeydate	Not null	Varchar2(10)
Journey	Not null	Varchar2(50)
Distance	Not null	Number(6)
Cost	Not null	Number(6)
Discount	Not null	Number(6)
Mobile	Not null	Number(10)
Passenger	Not null	Varchar2(20)
Birthdate	Not null	Varchar2(20)
Image	Not null	Varchar2(40)
Bookingdate	Not null	Varchar2(10)
Acno	Not null	Number(10)
Amount	Not null	Number(10)

Table 3.6: ACCOUNTS

NAME	Constraints	Data Type
Acno	Not null	Number(10)
Password	Not null	Varchar2(100)
Balance	Not null	Number(10)
Bank	Not null	Varchar2(10)

Table 3.7: CITIES

NAME	Constraints	Data Type
Citycode	Not null	Varchar2(5)
City	Not null	Varchar2(30)
District	Not null	Varchar2(30)
State	Not null	Varchar2(30)
Latitude	Not null	Varchar2(30)
Longitude	Not null	Varchar2(30)

4.OUTPUT SCREENS

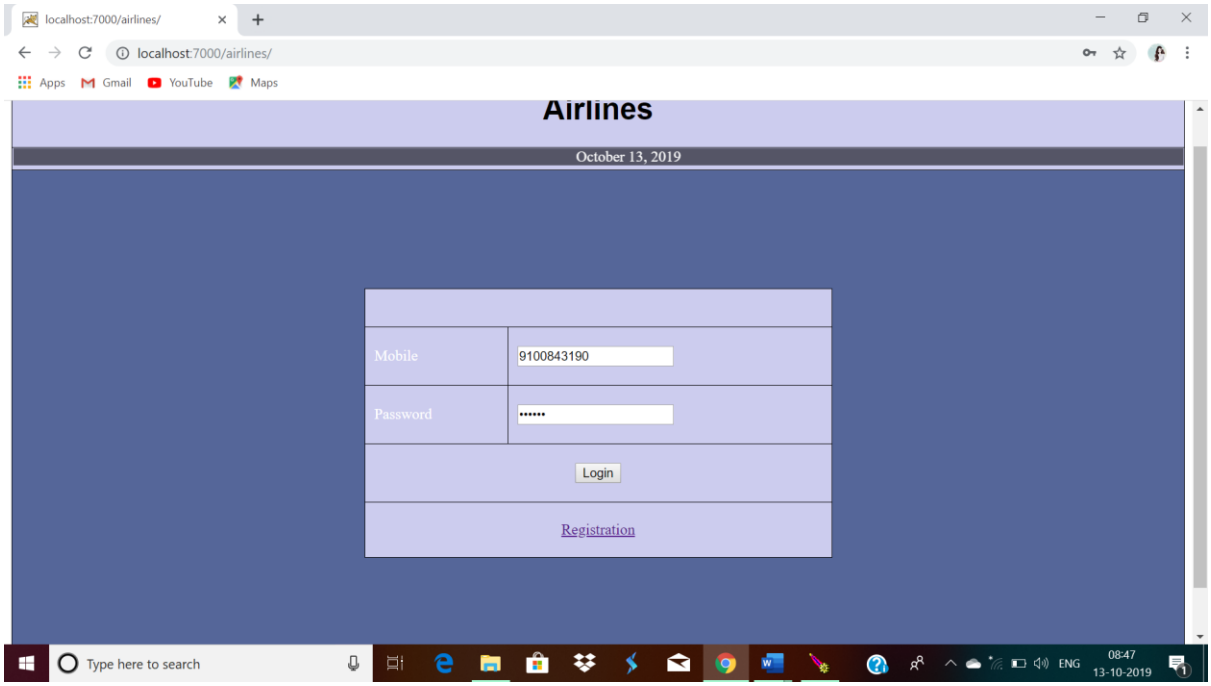

Fig.4.1:Screen for login

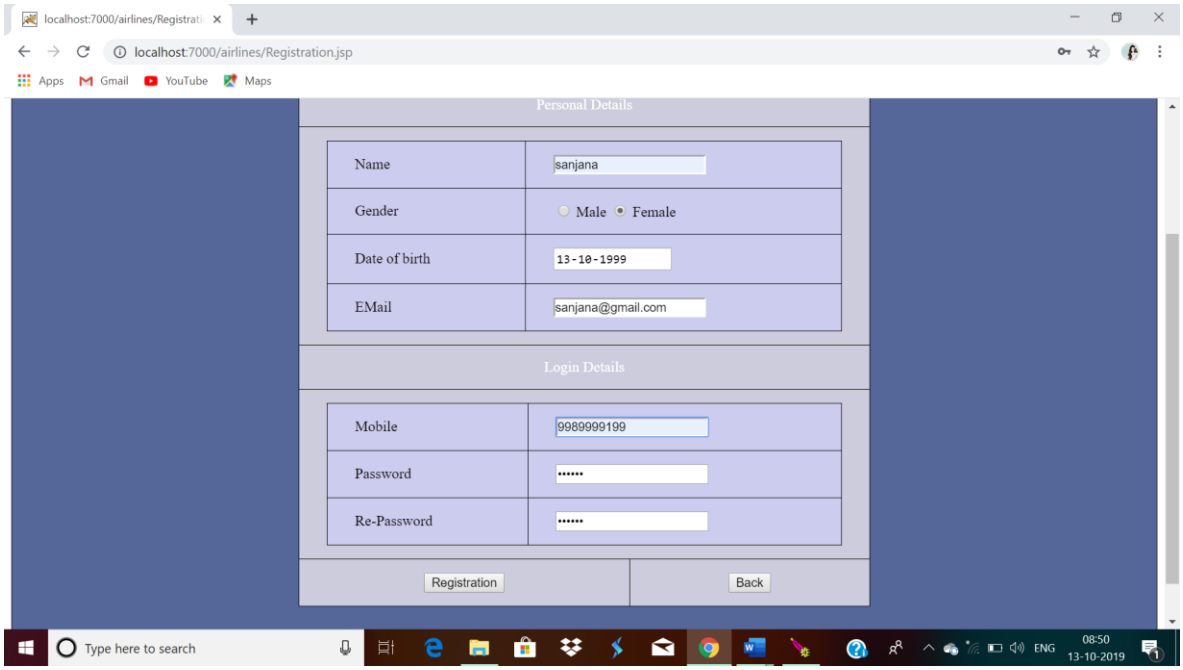

Fig.4.2:Screen for Registration

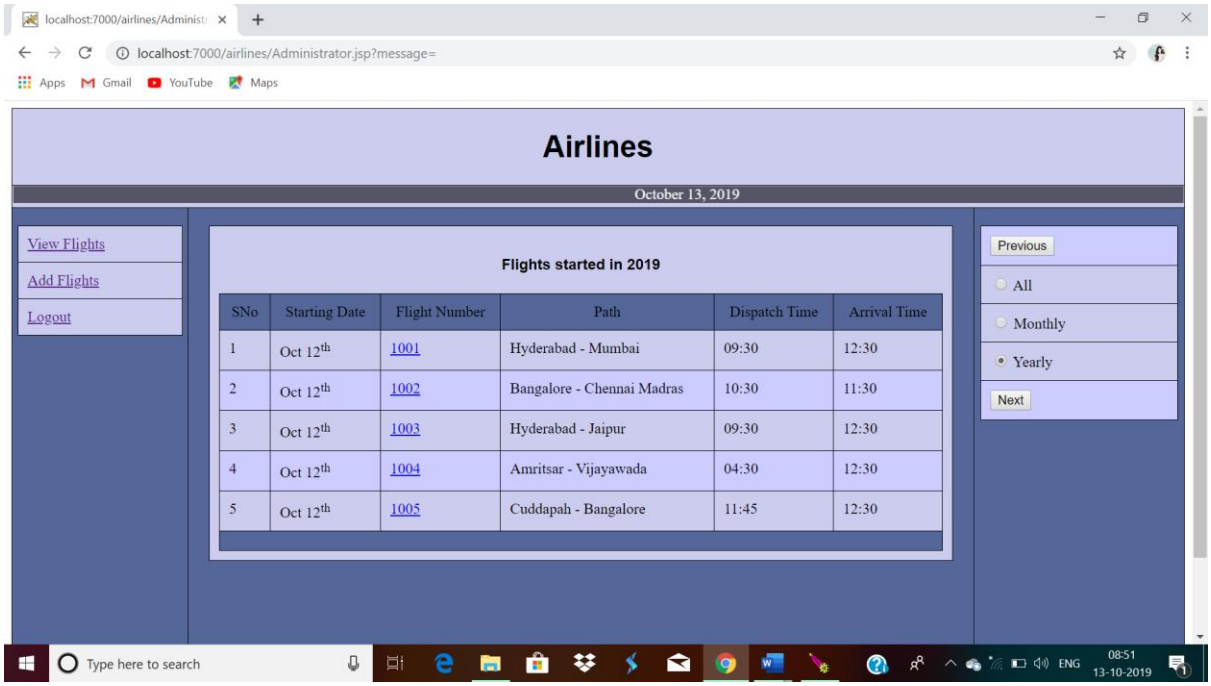

Fig.4.3:Screen for view flights page

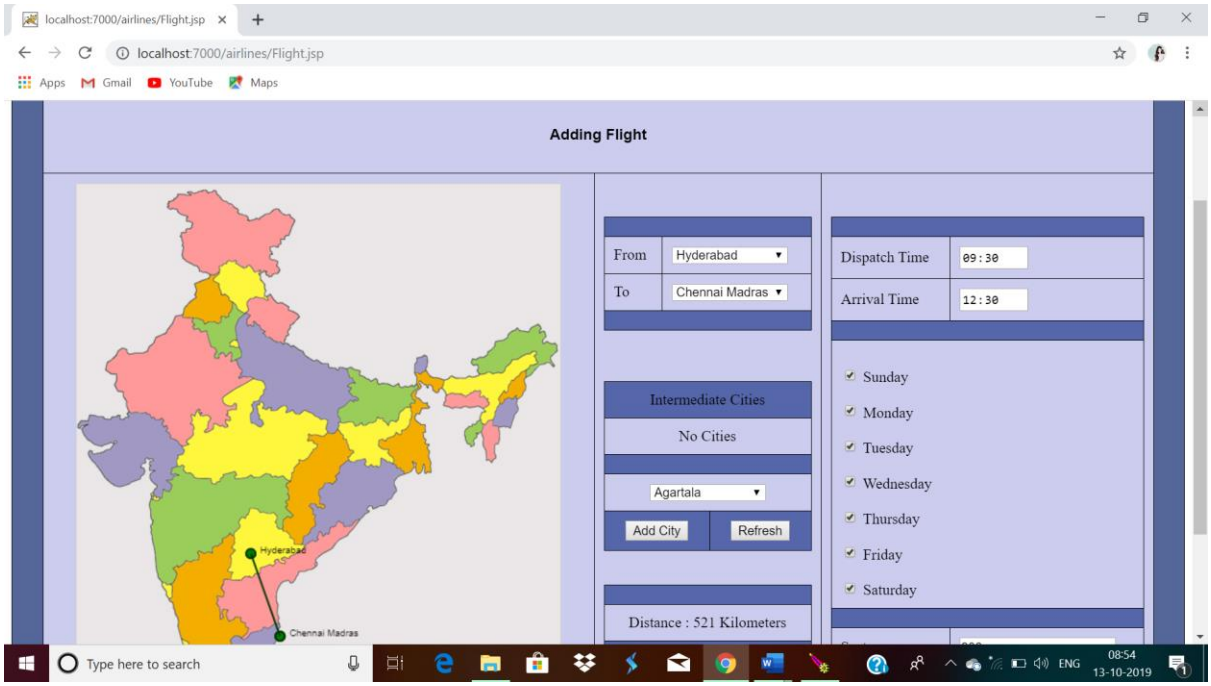

Fig.4.4:Screen for Add flight page

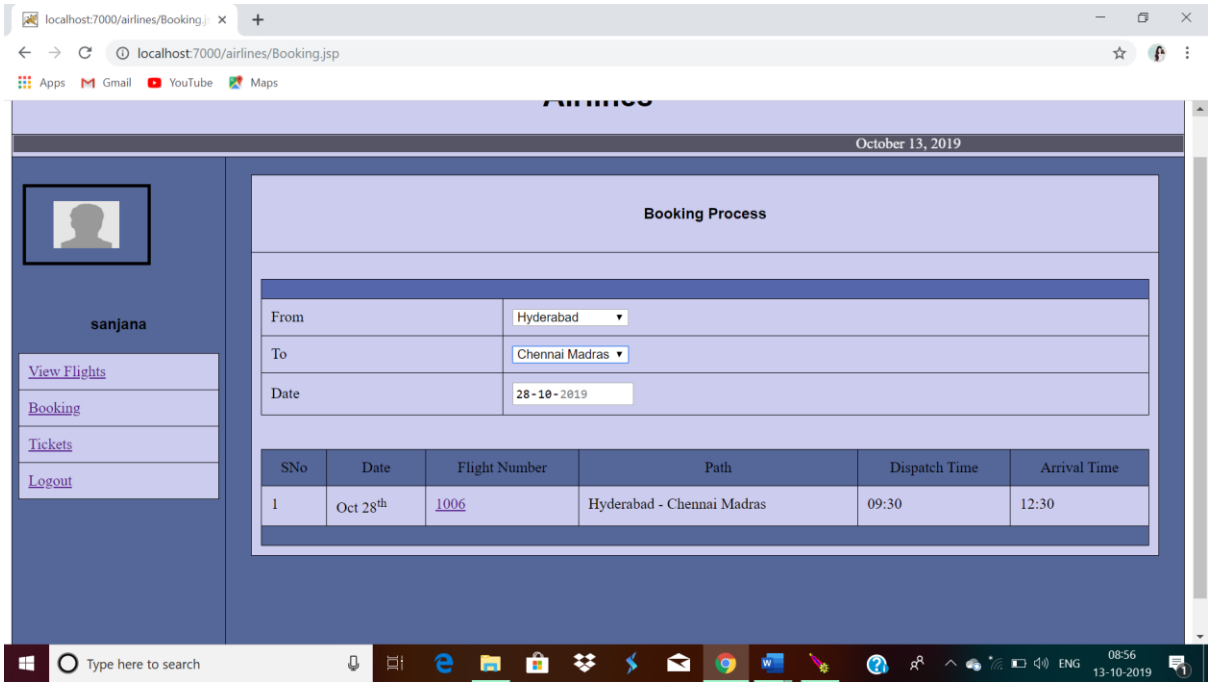

Fig.4.5:Screen for Booking ticket page

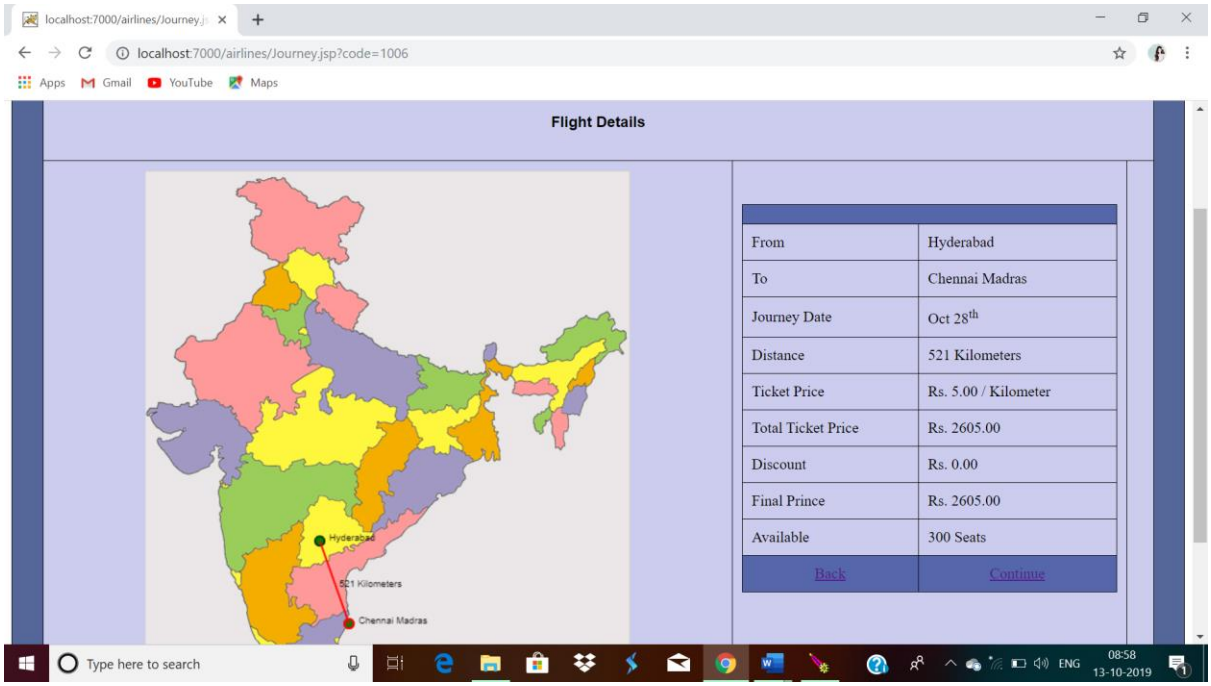

Fig.4.6:Screen for flight details

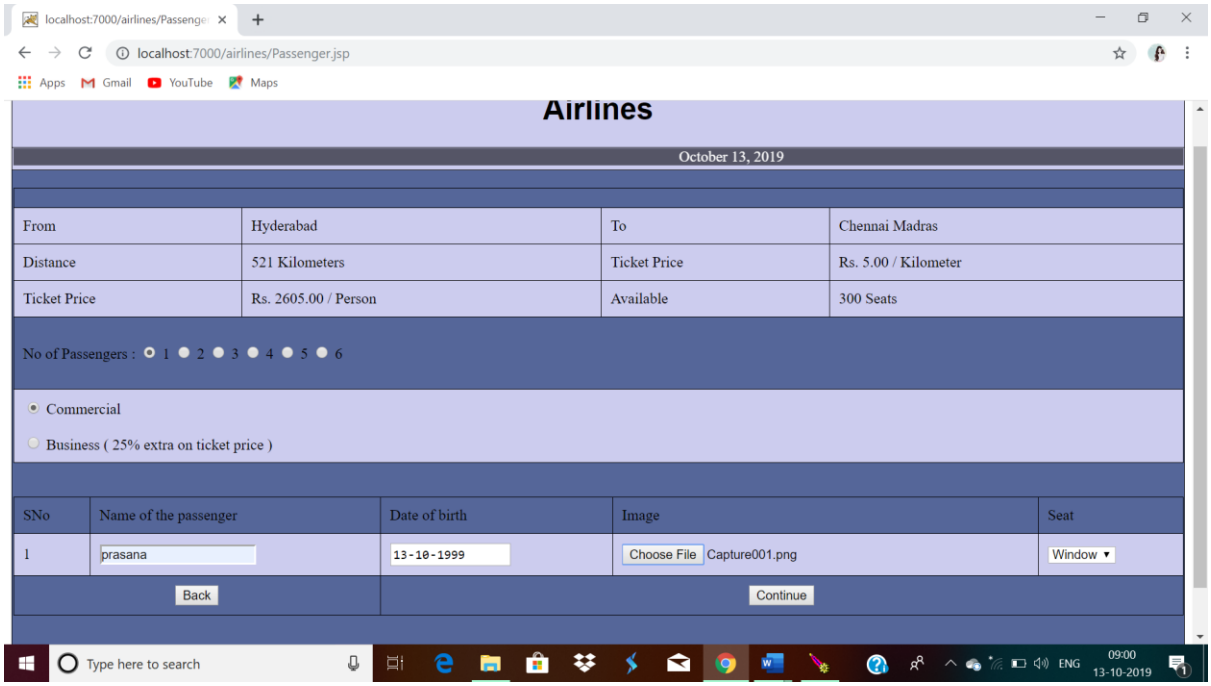

Fig.4.7:Screen for submitting details for ticket

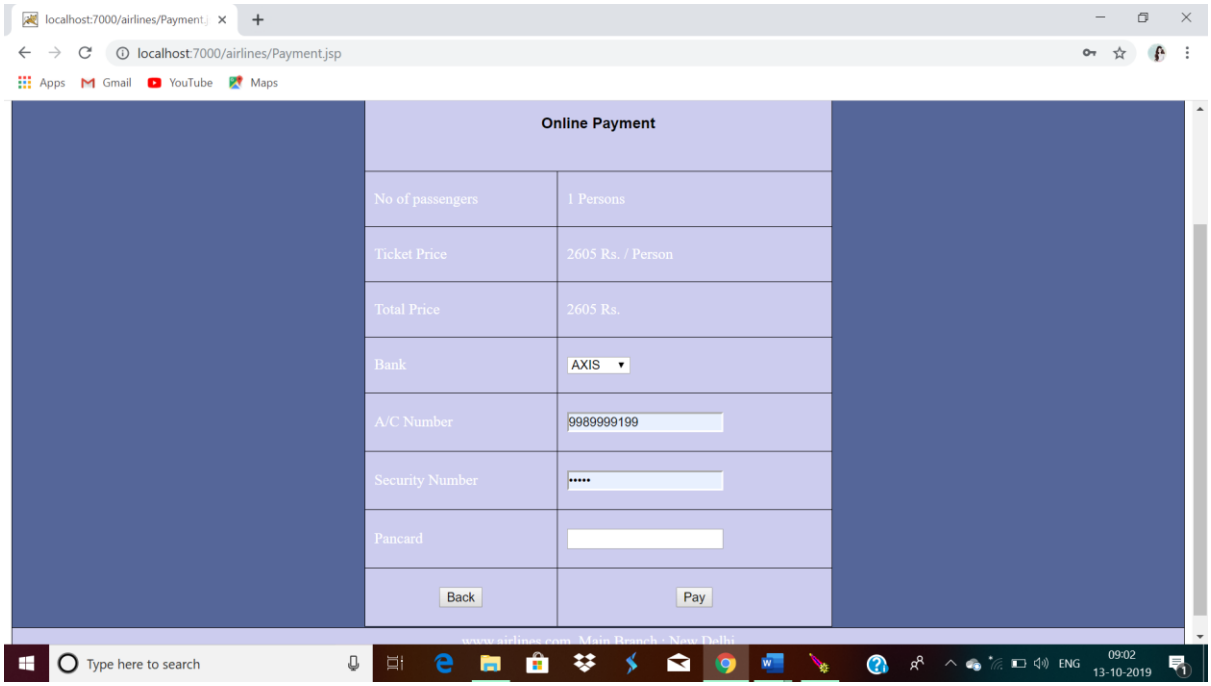

Fig.4.8:Screen for Payment page

5.CODE

Admin.jsp

```
<!DOCTYPE html>
<%@page import="java.sql.*" %>
<%@page import="airlines.*" %>
<%@page import="java.util.*" %>
<html>
<%	String type = (String)session.getAttribute("type");
	if( type.equals("Administrator") )
	{
%>
<head>
<link rel="stylesheet" type="text/css" href="css/airlines.css">
<script src="js/jquery-1.10.2.min.js"> </script>
<script src="js/jquery.form.js"> </script>
<script src="js/validations.js"> </script>
<script type="text/javascript" language="javascript">
	$(document).ready(function()
	{
		window.history.forward(1);
		$(":button").click(function()
		{
			$("#center").load( "ViewFlights.jsp?wise="+ $(this).val() );
		});
		$(".wise").change(function()
	{			$("#center").load( "ViewFlights.jsp?wise="+ $(this).val() ) });
```

```
	});
	function load( code )
	{
		$( "#center" ).load( 'ViewFlight.jsp?code='+code );
	}
	function updateTiming( code )
	{
		$( "#center" ).load( 'UpdateTiming.jsp?code='+code );
	}
	function flights( )
	{
		$( "#center" ).load( 'ViewFlights.jsp' );
	}
	function set( url )
	{
		$('#templete').attr('action', url );
		$('#templete').attr('method', 'post' );
		$('#templete').ajaxForm(
		{
			target: '#center'
		}).submit();
	}
</script>
</head>
<body>
<table class='main’<tr>
```

```
<td colspan='3'>
        <h1> <%= application.getInitParameter("organization") %> </h1>
                                                                </td> </tr>
<tr> <td colspan='3' align='right'>
<%      Dates dates = (Dates) session.getAttribute( "dates" );  %>
        <marquee behavior="alternate" style="background:#555566"> <%= dates.showDate()
%> </marquee>
</td> <
<tr height="520">
<td  class='center' width='15%' valign='top' >
<br/>
        <jsp:include    page="/Options.jsp" flush="true" />
</td>
        <td  class='center' width='67%' valign='top' >
<br/>
<table class='large-list' >
<tr>    <td>
<div id='center'>
        <h4> <span> <%= request.getParameter("message") %> </span> </h4>
        <jsp:include    page="/ViewFlights.jsp?wise=Yearly"  flush="true" />
</div>
</td> </tr>
</table>
<br/>
</td>
<td  class='center' width='18%' valign='top'>
```

```
<br/>
<table class='large-list' >
<tr class='alt' >          <td > <input type='button' name='step' id='previous' value='Previous' />
</td>
</tr>
<tr>    <td>  <input type='radio' name='wise' class='wise' id='all' value='All' /> All   </td>
        </tr>
<tr>    <td>  <input type='radio' name='wise' class='wise' id='monthly' value='Monthly' />
Monthly   </td>
</tr>
<tr>    <td>  <input type='radio' name='wise' class='wise' id='yearly' value='Yearly' checked
/> Yearly   </td>
</tr>
<tr class='alt' >          <td>  <input type='button' name='step' id='next' value='Next'  />  </td>
        </tr>
</table>
<tr height="30">
<td align='center' colspan='3'>
                <%= application.getInitParameter("website") %>, Main Branch :
                <%= application.getInitParameter("mainbranch") %>
</td> </tr>
</table>
</body>
<%      }   %>
</html>
```

Admindb.jsp

```
<!DOCTYPE html>
```

```
<%@page session="false" %>
<%@page import="airlines.*" %>
<html>
<head>
<link rel="stylesheet" type="text/css" href="css/airlines.css">
<script src="js/jquery-1.10.2.min.js"> </script>
<script src="js/validations.js"> </script>
<script src="js/jquery.form.js"></script>
<script type="text/javascript" language="javascript">
$(document).ready(function()
{
  window.history.forward(1);
});
</script>
</head>
<body>
<table class='main'>
<tr>  <td>
<h1> <%= application.getInitParameter("organization") %> </h1>
</td> </tr>
<tr> <td colspan='3' align='right'>
<marquee behavior="alternate" style="background:#555566"> <%= new Dates().showDate() %> </marquee>
</td> </tr>
<tr height="520">  <td  class='center'>
<br/><br/>
```

```
<form  action='registration'>
<table class='small-list' >
<tr> <td  colspan='2' align='center'> <div id='message'> </div> </td> </tr>
<tr> <td  colspan='2'align='center'> Personal Details </td>          </tr>
<tr> <td  colspan='2'>
<table class='full-list' >
<tr> <td> Name </td>
<td> <input type='text' class='cname' value='Mahesh' name='cname' /> </td>
</tr>
<tr> <td> Gender </td>
<td>            <input type='radio' name='gender' value='Male' checked/> Male
<input type='radio' name='gender' value='Female' /> Female
</td>
</tr>
 <tr>           <td> Date of birth </td
 <%  Dates dates = new Dates();
 String systemDate = dates.get();
 String min = dates.change( systemDate, -( ( 75 * 365 ) + ( 75 / 4 )) );
 String max = dates.change( systemDate, -( ( 15 * 365 ) + ( 15 / 4 ) ) );
String value = dates.change( systemDate, -( ( 20 * 365 ) + ( 20 / 4 ) ) );
%>
<td> <input type="date" name='birthdate' value='<%= value %>' min='<%= min %>'
max='<%= max %>'/> </td>
</tr>
<tr> <td> EMail </td>
<td> <input type='text' name='email' value='mahesh@gmail.com' class='email' /> </td>
```

```
</tr> </table>
</td> </tr>
<tr> <td colspan='2' align='center'> Login Details </td>  </tr>
<tr> <td  colspan='2'>
<table class='full-list' >
<tr> <td> Mobile </td>
<td>  <input type='text' name='mobile' class='available' value='9640038384' maxlength='10'/>  </td>
</tr>
<tr> <td> Password </td>
<td> <input type='password' class='password' value='123456' name='password'/> </td>
</tr>
<tr> <td> Re-Password </td>
<td> <input type='password' class='repassword'  value='123456' name='repass'/> </td>
</tr> </table>
</td> </tr>
<tr>
<td  align='center'> <input type='submit' value='Registration' /> </td>
<td align='center'>  <a href='index.jsp'> <input type='button' value='Back' /> </a></td>
</tr>
</table>
</form>
<br/><br/>
<tr height="30">    <td align='center'>
<%= application.getInitParameter("website") %>, Main Branch :
<%= application.getInitParameter("mainbranch") %>
```

```
</td>          </tr>
</table>
</body>
</html>
```

Registration.jsp

```
<!DOCTYPE html>
<%@page session="false" %>
<%@page import="airlines.*" %>
<html>
<head>
<link rel="stylesheet" type="text/css" href="css/airlines.css">
<script src="js/jquery-1.10.2.min.js"> </script>
<script src="js/validations.js"> </script>
<script src="js/jquery.form.js"></script>
<script type="text/javascript" language="javascript">
        $(document).ready(function()
        {
                window.history.forward(1);
        });
</script>
</head>
<body>
<table class='main'>
<tr>    <td>
        <h1> <%= application.getInitParameter("organization") %> </h1>
                                                                </td> </tr>
<tr> <td colspan='3' align='right'>
        <marquee behavior="alternate" style="background:#555566"> <%= new
Dates().showDate() %> </marquee>
        </td> </tr>
```

```
                                        <tr height="520">      <td  class='center'>
<br/><br/>
<form  action='registration'>
<table class='small-list' >
        <tr> <td  colspan='2' align='center'> <div id='message'> </div> </td> </tr>
        <tr>    <td  colspan='2'align='center'> Personal Details </td>          </tr>
        <tr>    <td  colspan='2'>
        <table class='full-list' >
        <tr> <td> Name </td>
                <td> <input type='text' class='cname' value=' ' name='cname' /> </td>
        </tr>
        <tr>    <td> Gender </td>
                <td>    <input type='radio' name='gender' value='Male' checked/> Male
                        <input type='radio' name='gender' value='Female' /> Female
                </td>
        </tr>
        <tr>    <td> Date of birth </td>
<%      Dates dates = new Dates();
        String systemDate = dates.get();
        String min = dates.change( systemDate, -( ( 75 * 365 ) + ( 75 / 4 )) );
        String max = dates.change( systemDate, -( ( 15 * 365 ) + ( 15 / 4 ) ) );
        String value = dates.change( systemDate, -( ( 20 * 365 ) + ( 20 / 4 ) ) );
%>
                <td> <input type="date" name='birthdate' value='<%= value %>' min='<%=
min %>' max='<%= max %>'/> </td>
        </tr>
                <tr>    <td> EMail </td>
        <td> <input type='text' name='email' value=' ' class='email' /> </td>
        </tr> </table>
        </td> </tr>
        <tr>    <td colspan='2' align='center'> Login Details </td>  </tr>
```

```
<tr>     <td  colspan='2'>

<table class='full-list' >

<tr>     <td> Mobile </td>

<td> <input type='text' name='mobile' class='available' value=' '
maxlength='10'/> </td>          </tr>    <tr>     <td> Password </td>


<td> <input type='password' class='password' value='123456'
name='password'/> </td>

</tr>

<tr>     <td> Re-Password </td>

<td> <input type='password' class='repassword'  value='123456'
name='repass'/> </td>

</tr> </table>

</td> </tr>

<tr>

<td  align='center'> <input type='submit' value='Registration' /> </td>

<td align='center'>  <a href='index.jsp'> <input type='button' value='Back' />
</a></td>

</tr>

</table>

</form>

<br/><br/>

<tr height="30">        <td align='center'>

<%= application.getInitParameter("website") %>, Main Branch :

<%= application.getInitParameter("mainbranch") %>

</td>   </tr>

</table>

</body>

</html>
```

Deleteflight.jsp

```
<!DOCTYPE html>
<%@page import="java.sql.*" %>
<%@page import="java.util.*" %>
<%@page import="airlines.*" %>
<%      Dates dates = (Dates) session.getAttribute( "dates" );
                String message = "Flight deleted successfully";
int code = Integer.parseInt( request.getParameter( "code" ) );
        Connection con = null;
        try
        {
                con = ConnectionPool.openConnection();
                PreparedStatement pst = con.prepareStatement( "delete from flights where
code = ? " );
                pst.setInt( 1 , code );
                pst.executeUpdate();
                pst = con.prepareStatement( "delete from journeys where flightcode = ? " );
                pst.setInt( 1 , code );
                pst.executeUpdate();
                ConnectionPool.closeConnection( con );
                        } catch ( Exception e)
        {
                message = "Flight deletion failed";
System.out.println(" Timing : " + e );
        }
%>
<table class='full-list' >
                <tr class='title'>
        <td colspan='2'><h4> <%= message %></h4></td>
        </tr>
```

```
	<tr class='hd'>
		<td colspan='2' align='center'> <a href='javascript:flights( )' > Back </a> </td>
	</tr>
</table>
```

Tickets.jsp

```
<!DOCTYPE html>
<%@page import="airlines.*" %>
<%@page import="java.util.*" %>
<%@page import="java.sql.*" %>
<table class='full-list' >
<tr class='title'>	<td>  SNo  </td>
		<td>  Passenger </td>		<td>  Journey </td>
		<td> Journey Date </td>		<td>  Seat </td>		<td>   </td>
</tr>
<%	int count = 0;
	Hashtable<String, String> cities = ( Hashtable<String, String> )
application.getAttribute( "cities" );
	Helper helper = ( Helper ) session.getAttribute( "helper" );
	Dates dates = (Dates) session.getAttribute( "dates" );
	try
	{
		String wise = request.getParameter("wise");
				if( wise == null )
		{
	}
		else if( wise.equals( "Next" ) || wise.equals( "Previous" ) )
		{
			dates.setStep( wise );
		}
		else
		{
```

```
                dates.setWise( wise );
            }
            String pattern = dates.pattern();
                        String message = dates.getMessage();
if( message.equals("All") )
                out.println( "<h4>  All Tickets Booked </h4>" );
            else
            out.println( "<h4>  Tickets booked in "+ dates.getMessage() +"</h4>" );
                                    String query = "select code, bookingdate,
passenger, journey, journeydate, seat from journeys where mobile = "+
session.getAttribute("mobile") +" and bookingdate like '"+ pattern +"%' order by journeydate
desc, code desc";
            Connection con = ConnectionPool.openConnection();
            Statement st = con.createStatement();
            ResultSet rs = st.executeQuery( query );
            String seats[] = { "Window", "Middle", "Side" };
            while( rs.next() )
            {
                String code = rs.getString( "code" );
                String bookingdate = rs.getString( "bookingdate" );
                String passenger = rs.getString( "passenger" );
                String journey = rs.getString( "journey" );
                                    String journeydate = rs.getString( "journeydate"
);
int seat = rs.getInt( "seat" );
                String systemDate = dates.get();
                if( systemDate.compareTo( bookingdate ) >= 0 )
                {
                    if( count % 2 == 0 )
                                                out.println( "<tr>" );
                    else
            out.println( "<tr class='alt'>" );
```

```
                                count = count + 1;
                                out.println( "<td valign='top'>"+ count +"</td>" );
                                out.println( "<td valign='top'>"+ passenger +"</td>" );
out.println( "<td valign='top'>"+ helper.getFromTo( journey ) +"</td>" );
                out.println( "<td valign='top'>"+ dates.dob( journeydate )  +"</td>" );
                out.println( "<td valign='top'>"+ seats[ seat ]  +"</td>" );
                                int difference = dates.difference( systemDate, journeydate );
                                if( difference > 0 )
                                        out.println( "<td valign='top'> <a
href='ViewTicket.jsp?code="+ code +"'> View </a> </td>" );
                                else
                                        out.println( "<td valign='top'> </td>" );
                                out.println( "</tr>" );
                        }
                }
                ConnectionPool.closeConnection( con );
        }catch( Exception e )
        {
                System.out.println( " View Flights : " + e );
        }
        if( count == 0 )
        {
                out.println( "<tr> <td colspan='6'> <h4> No Tickets are booked </h4> </td>
</tr> " );
        }
%>
        <tr class='title'><td colspan='6'> </td></tr>
                </table>
```