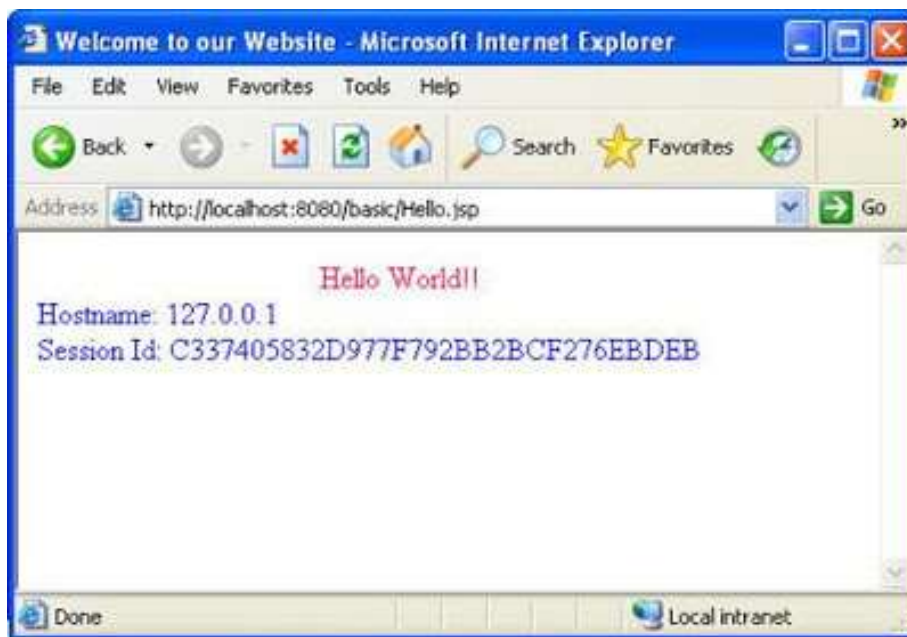


**1. Write a program to display a “Hello World” message in the Web browser. In addition, display the host name and Session Id. Write JSP code using HTML code.**

Solution:

```
<html>
<head>
<title>Welcome to our Website</title>
</head>
<body>
<marquee><font size="3" color="#FF0033">Hello World!!
</font></marquee>
<font color = "#0000FF"> Hostname: <%= request.getRemoteHost()
%><br>
<font color = "#0000FF"> Session Id: <%= session.getId() %>
</body>
</html>
```



**2. Write a program using JSP to calculate the sum of numbers from 1 to 25.**

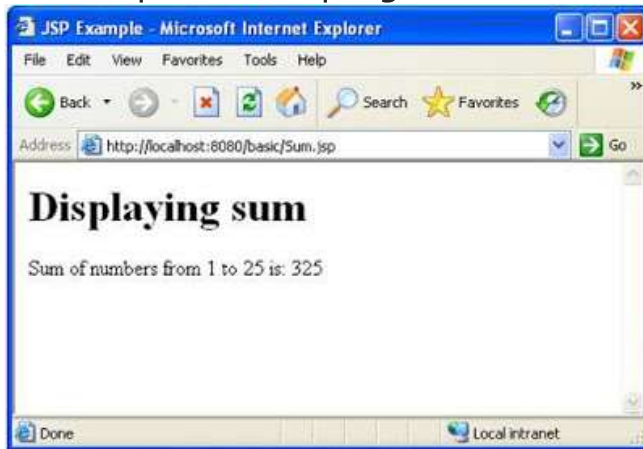
Solution:

```

<html>
<head>
<title>JSP Example</title>
</head>
<body>
<h1>Displaying sum</h1>
<%
    int sum=0;
    for(int num=1;num<=25;num++)
    {
        sum=sum+num;
    }
    out.println("Sum of numbers from 1 to 25 is : " + sum);
%>
</body>
</html>

```

The output of the program is as shown:



**3. Write a program that uses the `response.setHeader()` method to display the date. In addition, set the response header attribute and utilize the JSP expression tag.**

Solution:

```

//Date.jsp
<html>
<head>

```

```

<title>Example of JSP Implicit Object</title>
  <%@ page import="java.util.Date" %>
  </head>
<body bgcolor=#ffffff>
<font color="Black">
<h2> This example gives the Current Date </h2>
<h3>
  <% response.setHeader("Refresh", "6"); %>
  Current date: <%= new Date() %>.
</h3>
</body>
</html>

```

The output of the program is as shown



**4. Write a program to display the session ID, creation time, and the last accessed time of the Web page. Using session.getID(), session.getCreationTime(), and session.getLastAccessedTime().**

Solution:

The file used in this exercise is Expression.jsp.

```

<html>
<head>
<title> JSP Expressions </title>
</head>
<body bgColor="white">

```

```
<h2>Simple JSP Expression</h2>
<ul>
<li> Session id:<%= session.getId() %>
<li> Creation time:<%= new
java.util.Date(session.getCreationTime()) %>
<li> Time of last access: " + <%= new
java.util.Date(session.getLastAccessedTime())%>
</ul>
</body>
</html>
```

The output of the program is as shown.



**5. Write a program to display an error message to the user if an exception occurs in the JSP page. In the JSP page, consider a null string and find out the length of the string using `length()` method of Java. Create an error handler to handle the exception thrown by this JSP page.**

Solution:

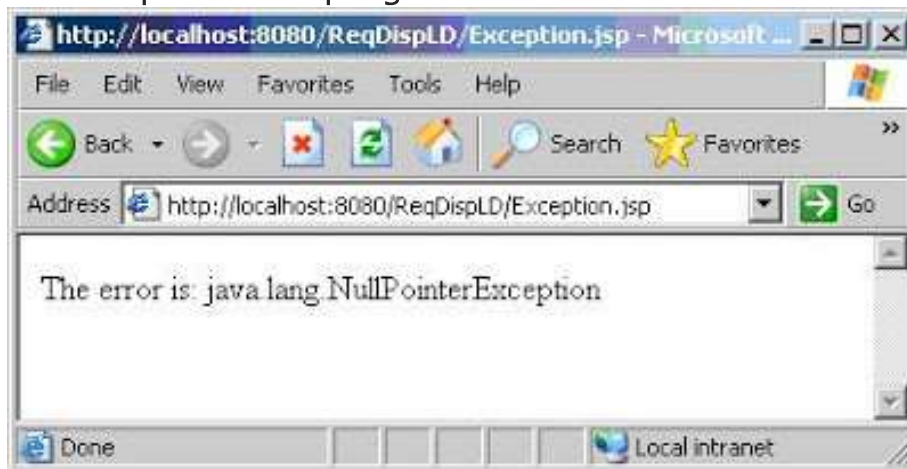
The files used to run the application are:

1. Exception.jsp
2. Example.html

```
//Exception.jsp
<html>
<body>
    <%@ page errorPage="example.jsp" %>
Example for Null Pointer exception:
<%
    String s=null;
    s.length();
%>
</body>
</html>
```

```
//Error handler file
//Example.jsp
<html>
<body>
    <%@ page isErrorPage="true" %>
The error is:
    <%= exception %>
</body>
</html>
```

The output of the program is as shown.



**6. Write a program using the request.getParameter() method to enter the Name and Password of a user and display the output on another JSP page.**

Solution:

The files used to run the application are:

User.jsp

UserDisplay.jsp

```
<html>
<head>
<title>Example of Implicit Objects</title>
</head>
<body>
    <h1>User submission form</h1>
    <form action="UserDisplay.jsp" method="post">
        Enter User Name:
        <input type="text" name="uname">
    <br>
    <br>
        Enter Password:
        <input type="password" name="pname">
    <br>
    <br>
        <input type="submit" name="submit" value="Submit">
    </form>
</body>
</html>
```

Save the code as User.jsp

```
<html>
<head>
<title>Example of Implicit objects</title>
</head>
<body>
    <font face=Times New Roman size=3>
        Thank you for your submission. Your information has been
        successfully added to the database:
    <br>
    <br>
    <%
        String sUName = request.getParameter("uname");
        String sPName = request.getParameter("pname");
```

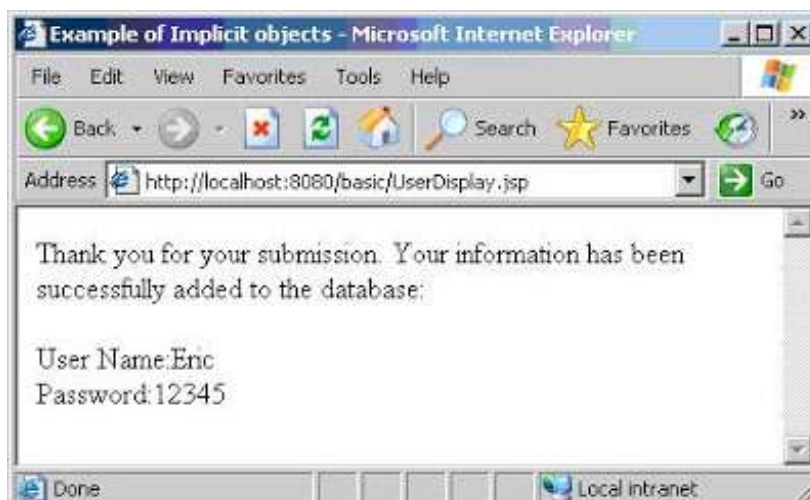
```
%>
    User Name: <%=sUName%> <br>
    Password: <%=sPName%> <br>
</font>
</body>
</html>
```

Save the code as UserDisplay.jsp

The output of the program:



The user enters the information and clicks the Submit button. The control is transferred to the UserDisplay.jsp page.



**7. Write a program to display the multiples of two. Include a for loop in the scriptlet block and display the numbers.**

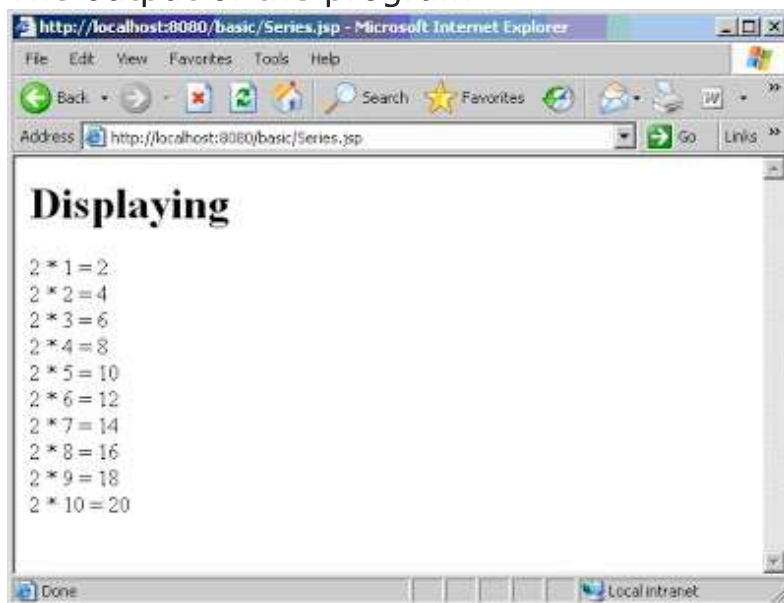
Solution:

The file used in this exercise is Series.jsp.

```
<html>
<body>
<h1>Displaying </h1>
<%
    int res;
    int j=2;

for (int i=1; i<11; i++)
{
    res=j*i;
    out.println(j + " * " + i + " = " + res);
    out.println("<br>");
}
%>
</body>
</html>
```

The output of the program





**8. Write a program to include an HTML file in a JSP page using RequestDispatcher interface method. The included file should display a login form to the user. In addition, the form should provide a Submit and Reset button. Display a Welcome message to the user when the user clicks on Submit button after entering the details.**

Solution:

The files used to run the application are:

1. Include.jsp
2. form.html
3. Welcome.jsp

//Include.jsp

```
<html>
<head>
<title>Include Example</title>
</head>
```

```
<P>
<jsp:include page="form.html" flush="true"/>
</body>
</html>
```

//form.html

```
<html>
<head>
<style>
body, input { font-family:Tahoma;
               font-size:10pt;
            }
</style>
```

```
</head>
<body>
```

```
<form action="Welcome.jsp" method="post">
&nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; Enter your Account Id:
```

```
<input type="text" name="Acc_Id" /> &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;
```

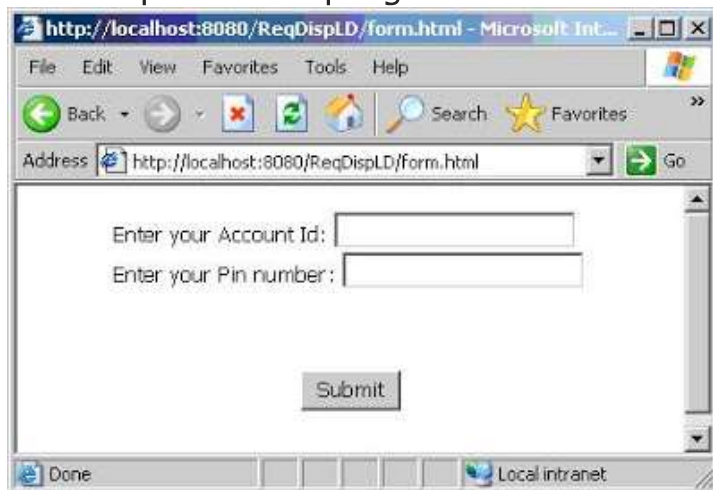
Enter your Pin number:

```
<input type="text" name="Pin_num"/> <br><br><br><br>
<Center><input type="submit" value="Submit"/><Center>
</form>
</body>
</html>
```

```
//Welcome.jsp
```

```
<%@ page language = "java" import="java.util.*" %>
<html>
<head>
<title>Welcome to our Website</title>
</head>
<body>
<center>
    out.println("Welcome to Online Banking");
</center>
</body>
</html>
```

## The output of the program



## Output of form.html

When the user enters the details and clicks on Submit button, the output appears as shown:



Output after clicking Submit button