

**1.Create a JSP page to accept a number from an user and display it in words: Example: 123**

**One Two Three. The output should be in red color.**

```
<%@ page language="java" %>

<html>

<head>

    <title>Number to Words</title>

</head>

<body>

    <form method="post">

        Enter a number: <input type="text" name="number">

        <input type="submit" value="Convert">

    </form>

<%

    String number = request.getParameter("number");
    if (number != null && number.matches("[0-9]+")) {
        for (int i = 0; i < number.length(); i++) {
            char digit = number.charAt(i);
            switch (digit) {
                case '0': out.print("<font color='red'>Zero </font>"); break;
                case '1': out.print("<font color='red'>One </font>"); break;
                case '2': out.print("<font color='red'>Two </font>"); break;
                case '3': out.print("<font color='red'>Three </font>"); break;
                case '4': out.print("<font color='red'>Four </font>"); break;
                case '5': out.print("<font color='red'>Five </font>"); break;
                case '6': out.print("<font color='red'>Six </font>"); break;
                case '7': out.print("<font color='red'>Seven </font>"); break;
                case '8': out.print("<font color='red'>Eight </font>"); break;
                case '9': out.print("<font color='red'>Nine </font>"); break;
            }
        }
    }
}
```

```
%>
```

```
</body>
```

```
</html>
```

**2.The following JSP program calculates factorial values for an integer number, while the input is taken from an HTML form**

**Slip2.jsp**

```
<%@ page language="java"%>
```

```
<%@ page import="java.util.*" %>
```

```
<html>
```

```
<head>
```

```
    <title>Factorial</title>
```

```
</head>
```

```
<body>
```

```
<h1>Factorial Calculation</h1>
```

```
<%
```

```
    String number = request.getParameter("number");
```

```
    int fact=1;
```

```
    if (number !=null){
```

```
        try{
```

```
            int num=Integer.parseInt(number);
```

```
                if(num>0){
```

```
                    for(int i=1;i<=num;i++)
```

```
                    {
```

```
                        fact=fact*i;
```

```
                    }
```

```
                }
```

```
            }catch (NumberFormatException e) {
```

```
                out.println("<p>Error: Please enter a valid number.</p>");
```

```
            }
```

```
        }
```

```
%>
```

```
<p>Factorial of number is <%= fact%></p>
```

```
</body>
```

```
</html>
```

### **Slip2.html**

```
<html>
```

```
<head>
```

```
    <title>Factorial</title>
```

```
</head>
```

```
<body>
```

```
    <form method="post" action="Slip2.jsp">
```

```
        Enter a number: <input type="text" name="number">
```

```
        <input type="submit" value="Convert">
```

```
    </form>
```

```
</body>
```

```
</html>
```

**3. The following JSP program shows the Fibonacci series up to a particular term, while the input is taken from an HTML form.**

### **Slip3.jsp**

```
<%@ page language="java" %>
```

```
<html>
```

```
<head>
```

```
    <title>Fibonacci Series</title>
```

```
</head>
```

```
<body>
```

```
    <h2>Fibonacci Series Result</h2>
```

```
    <%
```

```
        String numStr = request.getParameter("number");
```

```
        if (numStr != null) {
```

```
            try {
```

```
                int n = Integer.parseInt(numStr);
```

```
                if (n <= 0) {
```

```
                    out.println("<p>Please enter a positive number greater than 0.</p>");
```

```

    } else {

        int first = 0, second = 1;

        out.print("<p>Fibonacci series up to " + n + " terms:<br>");

        for (int i = 1; i <= n; i++) {

            out.print(first + " ");

            int next = first + second;

            first = second;

            second = next;

        }

        out.print("</p>");

    }

} catch (NumberFormatException e) {

    out.println("<p>Error: Please enter a valid integer.</p>");

}

} else {

    out.println("<p>Error: Input cannot be empty.</p>");

}

%>

```

```

</body>

```

```

</html>

```

### Slip3.html

```

<html>

```

```

<head>

```

```

    <title>Factorial</title>

```

```

</head>

```

```

<body>

```

```

    <form method="post" action="Slip3.jsp">

```

```

        Enter a number: <input type="text" name="number">

```

```

        <input type="submit" value="Convert">

```

```

    </form>

```

```

</body>

```

```

</html>

```

**4. Write a Program to make use of following JSP implicit objects:**

- i. out:** To display current Date and Time.
- ii. request:** To get header information.
- iii. response:** To Add Cookie
- iv. config:** get the parameters value defined in <init-param>
- v. application:** get the parameter value defined in <context-param>
- vi. session:** Display Current Session ID
- vii. pageContext:** To set and get the attributes.
- viii. page:** get the name of Generated Servlet

**5. Write a JSP script to display all the prime number's between 1 to n in Red Color.**

**Slip5.jsp**

```
<%@ page language="java" %>

<html>

<head>

    <title>Prime Numbers</title>

</head>

<body>

    <h6>Prime Numbers are</h6>

    <%

        String numStr = request.getParameter("number");

        if (numStr != null) {

            try {

                int n = Integer.parseInt(numStr);

                if (n <= 1) {

                    out.println("<p>Please enter a number greater than 1.</p>");

                } else {

                    for (int i = 2; i <= n; i++) {

                        boolean isPrime = true;

                        for (int j = 2; j <= Math.sqrt(i); j++) {
```

```

        if (i % j == 0) {
            isPrime = false;
            break;
        }
    }
    if (isPrime) {
        out.print("<font color='red'>" + i + " </font>");
    }
}

} catch (NumberFormatException e) {
    out.println("<p>Error: Please enter a valid integer.</p>");
}

} else {
    out.println("<p>Error: Input cannot be empty.</p>");
}

%>
</body>
</html>

```

### **Slip5.html**

```

<html>
<head>
    <title>Factorial</title>
</head>
<body>
    <form method="post" action="Slip5.jsp">
        Enter a number: <input type="text" name="number">
        <input type="submit" value="Convert">
    </form>
</body>
</html>

```

**6. Write a JSP application to accept the details of Emp (Eno, EName, Salary) and display it in**

**Tabular format on the browser.**

**Slip\_6.jsp**

```
<%@ page language="java"%>

<%

    String eno = request.getParameter("eno");

    String ename = request.getParameter("ename");

    String salary = request.getParameter("salary");

%>

<!DOCTYPE html>

<html>

<head>

    <title>Employee Details</title>

    <style>

        table, th, td {

            border: 1px solid black;

            border-collapse: collapse;

            padding: 10px;

        }

    </style>

</head>

<body>

    <h2>Employee Details</h2>

    <table>

        <tr>

            <th>Employee Number</th>

            <th>Employee Name</th>

            <th>Salary</th>

        </tr>

        <tr>

            <td><%= eno %></td>

            <td><%= ename %></td>

            <td><%= salary %></td>

        </tr>

    </table>

</body>

</html>
```

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

### **Slip6.jsp**

```
<!DOCTYPE html>
<html>
<head>
    <title>Employee Form</title>
</head>
<body>
    <h2>Enter Employee Details</h2>
    <form action="Slip6.jsp" method="post">
        <label>Employee Number:</label>
        <input type="text" name="eno" required /><br/><br/>

        <label>Employee Name:</label>
        <input type="text" name="ename" required /><br/><br/>

        <label>Salary:</label>
        <input type="number" name="salary" step="0.01" required /><br/><br/>

        <input type="submit" value="Submit"/>
    </form>
</body>
</html>
```

## **7. Write a JSP application to accept a user name and greets to the user according to the system**

**Time.**

### **Greet.jsp**

```
<%@ page language="java" %>
<%@ page import="java.util.Calendar" %>
<%
```



```

String username = request.getParameter("username");

Calendar calendar = Calendar.getInstance();

int hour = calendar.get(Calendar.HOUR_OF_DAY);

String greeting;

if(hour >= 5 && hour < 12){
    greeting = "Good Morning";
} else if(hour >= 12 && hour < 17){
    greeting = "Good Afternoon";
} else if(hour >= 17 && hour < 21){
    greeting = "Good Evening";
} else {
    greeting = "Good Night";
}

%>

```

```

<!DOCTYPE html>

<html>

<head>

    <title>Greeting</title>

</head>

<body>

    <h2><%= greeting %>, <%= username %>!</h2>

</body>

</html>

```

### **Slip7.html**

```

<!DOCTYPE html>

<html>

<head>

    <title>Greeting Form</title>

</head>

<body>

    <h2>Enter Your Name</h2>

```

```
<form action="Greet.jsp" method="post">
  Name <input type="text" name="username" required />
  <input type="submit" value="Greet Me" />
</form>
</body>
</html>
```