

Script Programming Practise

Q1

- 1 a) Create a web page that produces the table shown in fig.

Products Details

Product Name	Qty.	Price	Cost
Stickers	1000	0.01	10.00
Staples (box)	100	1.00	100.00
Subtotal			110.00
Tax		8%	8.80
Grand Total			\$118.80

- (b) Write a JavaScript code using DOM to change the product name Stickers with Stapler and change the colour of the text Stapler into red.

```
<html>
<head>
<title>pod detail</title>
</head>
<body>
<table border="1" >
<p><strong>product detail</strong></p>
<thead>
<tr>
    <th>product name</th>
    <th>qty.</th>
    <th>price</th>
    <th>cost</th>
</tr>
</thead>
<tbody>
<tr>
    <td id="product">sticker</td>
    <td>1000</td>
    <td>0.01</td>
```

```

        <td>10.00</td>
</tr>
<tr>
    <td>staples(box)</td>
    <td>100</td>
    <td>1.00</td>
    <td>100.00</td>
</tr>
<tr>
    <td>subtotal</td>
    <td></td>
    <td></td>
    <td>110.00</td>
</tr>
<tr>
    <td colspan="2">tax</td>
    <td>8%</td>
    <td>8.80</td>
</tr>
<tr height=50px>
    <td colspan="3">grandtotal</td>
    <td>$118.80</td>
</tr>
</tbody>
</table>
<button id="qb">
    Click to change
</button>
<script>
    var btn = document.getElementById("qb");
    btn.addEventListener("click", function () {
        var product = document.getElementById("product");
        product.innerHTML = "Stapler";
        product.style.color = 'red';
    })
</script>
</body>
</html>

```

Alternate answer:

```

<html>
<head>
<title>Que1</title>
</head>
<body>

```

```

<table border="1" >
<p><strong>product detail</strong></p>
<thead>
<tr>
    <th>product name</th>
    <th>qty.</th>
    <th>price</th>
    <th>cost</th>
</tr>
</thead>
<tbody>
<tr>
    <td id="product">sticker</td>
    <td>1000</td>
    <td>0.01</td>
    <td>10.00</td>
</tr>
<tr>
    <td>staples(box)</td>
    <td>100</td>
    <td>1.00</td>
    <td>100.00</td>
</tr>
<tr>
    <td>subtotal</td>
    <td></td>
    <td></td>
    <td>110.00</td>
</tr>
<tr>
    <td colspan="2">tax</td>
    <td>8%</td>
    <td>8.80</td>
</tr>
<tr height=50px>
    <td colspan="3">grandtotal</td>
    <td>$118.80</td>
</tr>
</tbody>
</table>
<p>click on the button to change</p><br>
<br>

```

```

<button id="button" onclick="myfunction()">Click to change</button>
</body>
<script>
    function myfunction(){
        document.getElementById("product").innerHTML="Stapler";
        document.getElementById("product").style.color="red";
    }
</script>
</html>

```

Q2

2. a) Given an array A1=[4,0,2,5,4,3,5,0,7,8]. Write a JavaScript program to divide a given array of positive integers into two parts. 1st element goes to first part, 2nd element goes to second part, and 3rd element goes to first part and so on. Calculate the sum of two parts and store into an array of size two.

(b). Write a JavaScript program to generate Fibonacci series up to 'n' numbers. You have to get the 'n' value from the user by using prompt box.

Part a

```

<!DOCTYPE html>
<html>
<head>
    <title>Question 2</title>
</head>
<body>
    <div id="s1" style="border: 5px solid yellow;">
        <h1>Split 1</h1>
    </div>
    <div id="s2" style="border: 5px solid red;">
        <h1>Split 2</h1>
    </div>
    <script>
        var arr = [4, 0, 2, 5, 4, 3, 5, 0, 7, 8];
        var div1 = new Array();
        var div2 = new Array();
        for(var i=0; i< arr.length; i++) {

```

```

        if (i%2 == 0)
            div1.push(arr[i]);
        else
            div2.push(arr[i]);
    }
    //get the sum here
    var s1 = 0;
    var s2 = 0;
    for(var i=0; i<div1.length;i++) {
        document.getElementById('s1').innerHTML += div1[i] + " ";
        document.getElementById('s2').innerHTML += div2[i] + " ";
        s1 += div1[i];
        s2 += div2[i];
    }
    var res = [s1, s2];
    document.getElementById('s1').innerHTML += "<br>Total Sum: " +
res[0] + " ";
    document.getElementById('s2').innerHTML += "<br>Total Sum: " +
res[1] + " ";
</script>
</body>
</html>

```

Part b

```

<!DOCTYPE html>
<html>
<head>
    <title>Fibonacci</title>
</head>
<body>
    <script>
        var a1 = 0;
        var a2 = 1;
        var temp;
        var n = parseInt(prompt("Enter n:"));
        for(var i = 0; i < n; i++) {
            temp = a1 + a2;
            document.writeln(temp + " ");
            a1 = a2;
            a2 = temp;
        }
    </script>
</body>
</html>

```

Q3

3. (a) Create a web page to display 2 X 3 table. Within the table you have to display 6 images of Indian Tourist spots. Each image has a link to the corresponding site of the tourist spot. Each image must at least 50 X 50 in size. You have to display the tourist spot name when the images are not loaded.

(b) Create a web page with two text boxes and one button control. One text box is used to get the radius of circle and another text box used to display the area of circle. Write a JavaScript program to calculate and display the area of circle in second text box when the user clicks the calculate button.

Part b:

```
<!DOCTYPE html>
<html>
<head>
  <title>Area of Circle</title>
</head>
<body>
  <p>Enter Radius: <input id="radius" type="number"/></p>
  <p>Area of Circle is: <input id="area" type="number" readonly/></p>
  <button id="get-area">Get Area</button>
  <script>
    document.getElementById("get-area").addEventListener("click", () => {
      var radius = parseInt(document.getElementById("radius").value);
      document.getElementById("area").value = Math.PI*radius*radius;
    })
  </script>
</body>
</html>
```

Alternate Answer using forms

```
<!DOCTYPE html>
<html>
  <title>Que3b</title>
  <body>
    <form >
      <label for="demo1">Enter Radius of circle:</label>
      <input type="text" id="demo1" name="demo1"><br><br>
```

```

        <label for="area">Area of circle:</label>
        <input type="text" id="area" name="area"><br><br>
        <input type="button" onclick= "areas()" value="submit">
    </form>
    <p>click submit to know the area of circle</p>
    <script>
        function areas()
        {
            var r=parseInt(document.getElementById("demo1").value);
            document.getElementById("area").value = Math.PI*r*r;
        }
    </script>
</body>
</html>

```

Q4

4.Create a database called Customers with table name customer in MySQL. The fields are Cust_Id, Cust_Name, Mobile, email and address. Write an Ajax program post request using JQuery. Insert all the fields to the database using JQuery.

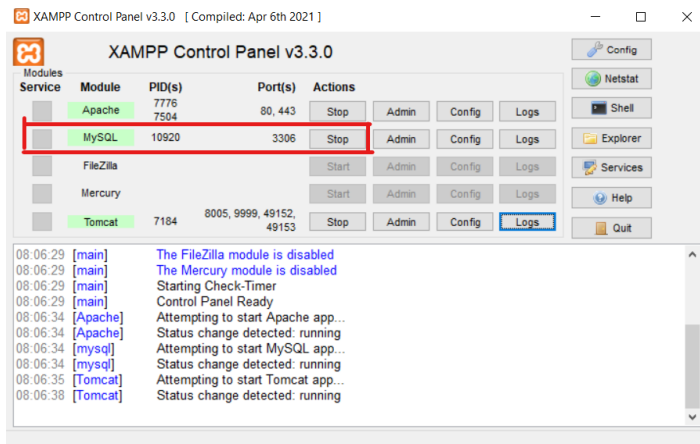
Steps for creating a database in XAMPP

Step 1:

Run XAMPP

Step 2:

Run MySQL in XAMPP

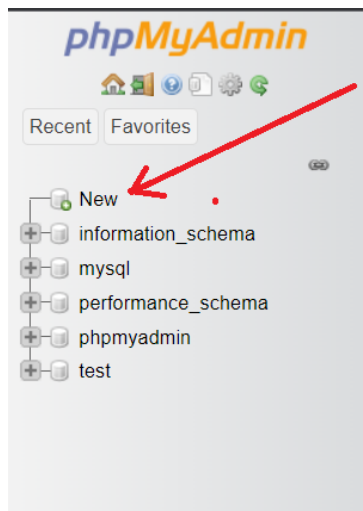


Step 3:

Click on the Admin button for MySQL

Step 4:

Click on the new button in the left side of the screen



Step 5:

Create the database with name Customer

Step 6:

Create a table with name customer and number of columns as 5

Create new table

Table name

customer

Number of columns

5

Create

Step 7:

Give the following values for the columns, **make sure the type and Index value is as given in the image below - Very Important!**

Name	Type	Length/Values	Default	Collation	Attributes	Null	Index
Cust_Id <small>Pick from Central Columns</small>	INT		None			<input type="checkbox"/>	PRIMARY
Cust_Name <small>Pick from Central Columns</small>	VARCHAR	20	None			<input type="checkbox"/>	---
Mobile <small>Pick from Central Columns</small>	BIGINT		None			<input type="checkbox"/>	---
Email <small>Pick from Central Columns</small>	VARCHAR	20	None			<input type="checkbox"/>	---
Address <small>Pick from Central Columns</small>	VARCHAR	20	None			<input type="checkbox"/>	---

Click on save.

Your database is now created

Now writing the actual code for interacting with the database...

Step 1:

Navigate to C://xampp/tomcat/webapps

Step 2:

Create a folder called test-db

This is where we are going to type our code

Step 3:

There is going to be 2 pieces of code here, one for the frontend and another for inserting the files in the backend

frontend.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>jQuery DB</title>
    <!--
      Replace the below script line with given file in exam
    -->
    <script
      src="https://code.jquery.com/jquery-3.6.3.min.js"
      integrity="sha256-pvPw+upLPujgMXy0G+800xUf+/Im1MZjXxxgOcBQBXU="
      crossorigin="anonymous"
    ></script>
  </head>
  <body>
    <form>
      <p>Enter Customer ID:<input type="number" name="cust-id"
required/></p>
      <p>Enter Customer Name:<input type="text" name="cust-name"
required/></p>
      <p>Enter Customer Mobile:<input type="number" name="cust-mobile"
required/></p>
      <p>Enter Customer Email:<input type="email" name="cust-email"
required/></p>
      <p>Enter Customer Address:<input type="text" name="cust-addr"
required/></p>
    </form>
    <button id="submit">Submit</button>
    <div id="success-div"></div>
    <script>
      $("#submit").click(() => {
        var url = "http://localhost:9999/submit.jsp?id=" +
$("input[name='cust-id']").val() +
        "&name=" + $("input[name='cust-name']").val() +
        "&mobile=" +
$("input[name='cust-mobile']").val() +
        "&email=" + $("input[name='cust-email']").val()
+
        "&addr=" + $("input[name='cust-addr']").val();
        $.ajax({
          url: url,
```

```

        success: () => {
            $("#success-div").text = "Inserted!";
        }
    })
})
</script>
</body>
</html>

```

Is the above code too confusing? If it is, please message me ill add a simplified version
simplified-frontend.html

```

<!DOCTYPE html>
<html>
  <head>
    <title>jQuery DB</title>
    <!--
      Replace the below script line with given file in exam
    -->
    <script
      src="https://code.jquery.com/jquery-3.6.3.min.js"
      integrity="sha256-pvPw+upLPUjgMXy0G+800xUf+/Im1MZjXxxgOcBQBxU="
      crossorigin="anonymous"
    ></script>
  </head>
  <body>
    <form>
      <p>Enter Customer ID:<input type="number" name="cust-id"
required id="input-id"/></p>
      <p>Enter Customer Name:<input type="text" name="cust-name"
required id="input-name"/></p>
      <p>Enter Customer Mobile:<input type="number" name="cust-mobile"
required id="input-mobile"/></p>
      <p>Enter Customer Email:<input type="email" name="cust-email"
required id="input-email"/></p>
      <p>Enter Customer Address:<input type="text" name="cust-addr"
required id="input-addr"/></p>
    </form>
    <button id="submit">Submit</button>
    <div id="success-div"></div>
    <script>
      //this function will create the URL that we need to send request
to
      function generateURL() {
        var id = $("#input-id").val();
        var name = $("#input-name").val();

```

```

        var mobile = $("#input-mobile").val();
        var email = $("#input-email").val();
        var addr = $("#input-addr").val();
        var url = "http://localhost:9999/db-test/submit.jsp?id=" +
id
        + "&name=" + name
        + "&mobile=" + mobile
        + "&email=" + email
        + "&addr=" + addr;
        return url;
    }
    var actual_url = generateURL();

    //this function will send the AJAX request
    function sendAJAXRequest() {
        $.ajax({
            url: actual_url,
            success: function () {
                $("#success-div").text = "Inserted!";
            }
        })
    }

    $("#submit").click(sendAJAXRequest());
</script>
</body>
</html>

```

submit.jsp

```

<%@page language="java" contentType="text/html" pageEncoding="utf-8"%>
<%@page import="java.sql.*" %>
<html>
<body>
<%
    Connection connection = null;
    int id = Integer.parseInt(request.getParameter("id"));
    String name = request.getParameter("name");
    String email = request.getParameter("email");
    long mobile = Long.parseLong(request.getParameter("mobile"));
    String addr = request.getParameter("addr");
    Class.forName("com.mysql.jdbc.Driver");
    connection =
DriverManager.getConnection("jdbc:mysql://localhost:3306/customers",
"root", "");

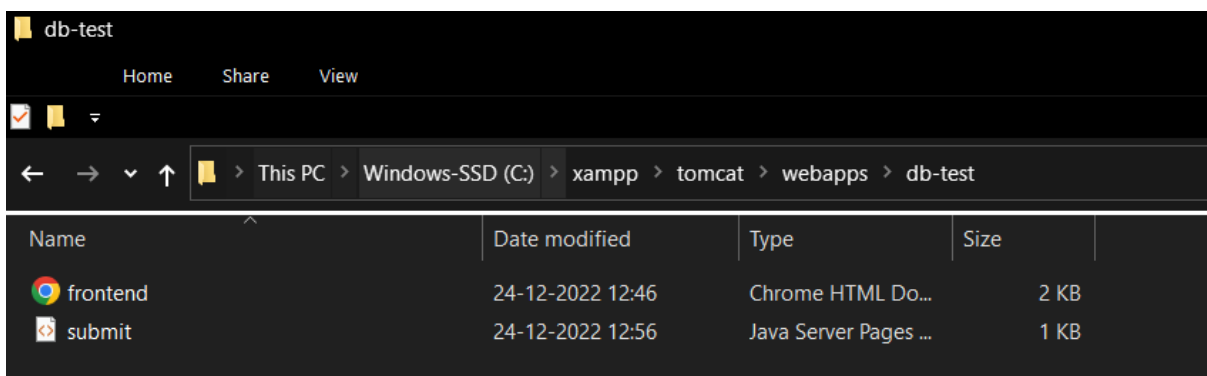
```

```

        Statement stmt = connection.createStatement();
        String query = "INSERT INTO
customer(Cust_Id,Cust_Name,Moblie,Email,Address)
VALUES('"+id+"','"+name+"','"+mobile+"','"+email+"','"+addr+"');";
        stmt.executeUpdate(query);
%>
</body>
</html>

```

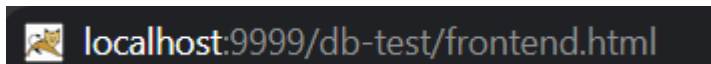
Your final directory should look like this



Running the actual program

Go back to XAMPP and click on Admin next to the tomcat bar

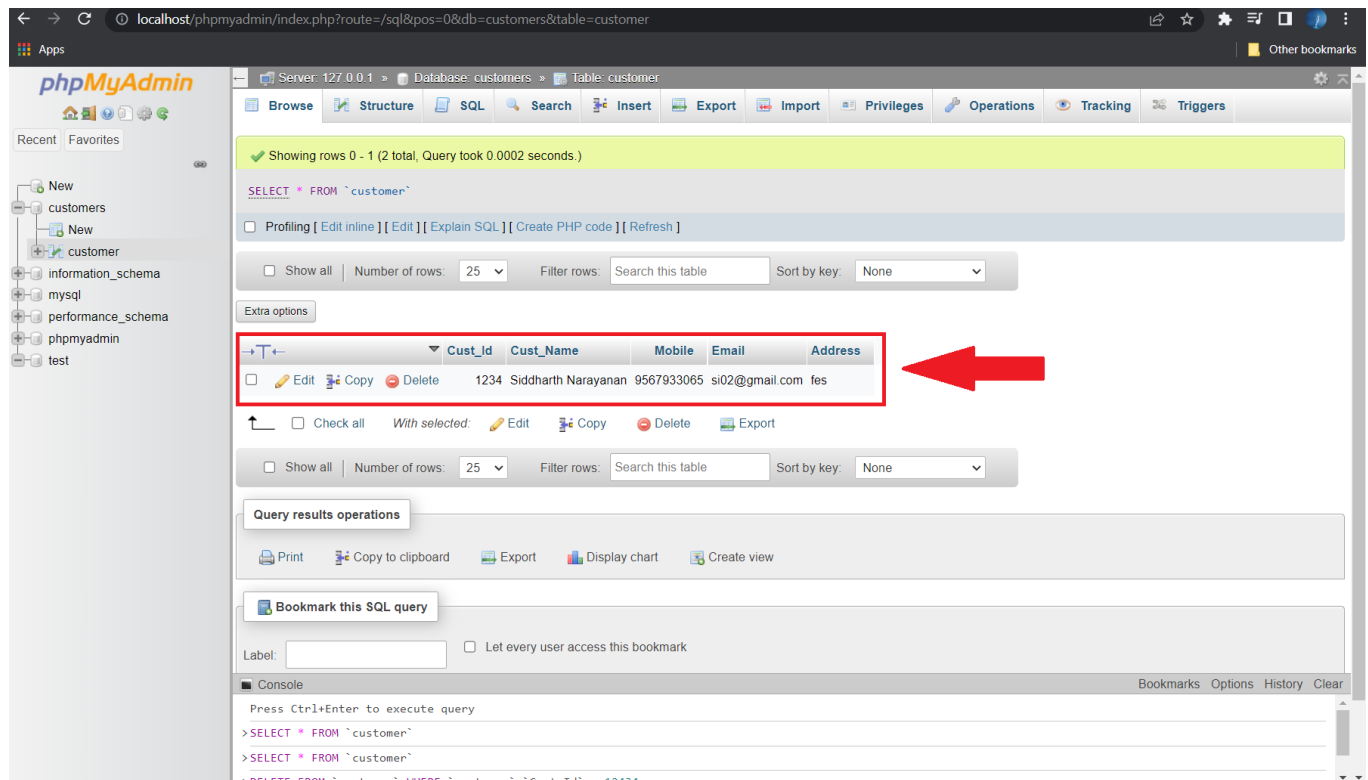
Once the page opens, add the following to the end of the URL - **/test-db/frontend.html**



In my case it is localhost:9999, it will be different for you

Once you open the page, you can fill the form and submit it

Now to check if data is inserted correctly, go back to sql page and check the customer table
It should look like this



Q5

5. Create a web Page using html and JavaScript that prompts for one name at a time. The User enters maximum of 10 names and then click Cancel to indicate that he/she has finished. You can use array to store all names. Write an external JavaScript file to display the number of names entered and display all names in alphabetical order.

HTML CODE:

```
<!DOCTYPE html>
<html>
  <title>que5</title>

  <body>
    <h3 id="demo"></h3>
    <p id="demo1"></p>
    <script src="que5.js"></script>

  </body>
```

```
</html>
```

JAVASCRIPTCODE:

```
var y;
var arr = [];

for(var x=0;x<10;x++)
{
    y= prompt("Enter the names:");
    if(y==null)
    {
        break;
    }
    arr.push(y);
}
x=arr.length;
arr.sort();
document.getElementById("demo").innerHTML=arr;
document.getElementById("demo1").innerHTML="The count is:"+x;
```

Q6

6.Implement Java bean program for (i) reversing digits (ii) to find whether the number is odd or even. Maintain separate files for java (Business logic) and one jsp file to use the logic. The directory structure and placing of classes and package name can be made as your wish.

Creating Beans...

- Create the following directory structure inside your xampp/tomcat/webapps folder
- Create a folder called **bean-stuff** (You can name this anything)
- Inside bean-stuff create a folder called **WEB-INF**
- Inside WEB-INF create a folder called **classes**
- Inside classes create a folder called **revoddeve** (you can name this anything)
- Inside revoddeve is where you type your actual java code
- I am creating 2 beans here, **oddeveBean.java** and **revBean.java**

revBean.java

```

package revoddeve;
import java.io.*;
public class revBean implements Serializable {

    public revBean() {}
    public int reverseDigits(int digit) {
        int reverse = 0;
        while(digit != 0)
        {
            int remainder = digit% 10;
            reverse = reverse * 10 + remainder;
            digit= digit/10;
        }
        return reverse;
    }
    public static void main(String args[]) {}
}

```

oddeveBean.java

```

package revoddeve;
import java.io.Serializable;
public class oddeveBean implements Serializable{
    public oddeveBean() {}
    public String oddOrEven(int digit) {
        if(digit%2 == 0) {return "even";}
        return "odd";
    }
    public static void main(String args[]) {}
}

```

- Open command prompt in this folder and compile these two files with javac
- Your final directory structure should look like this after compiling

← → ▾ ▴ 📁 > This PC > Windows-SSD (C:) > xampp > tomcat > webapps > bean-stuff > WEB-INF > classes > revoddeve				
Name	Date modified	Type	Size	
oddeveBean.class	25-12-2022 18:56	CLASS File	1 KB	
oddeveBean	25-12-2022 18:41	JAVA File	1 KB	
revBean.class	25-12-2022 18:57	CLASS File	1 KB	
revBean	25-12-2022 18:49	JAVA File	1 KB	

Now we have to write the code for the frontend

Navigate to xampp/tomcat/webapps/bean-stuff and create a file called **frontend.jsp**

Frontend.jsp

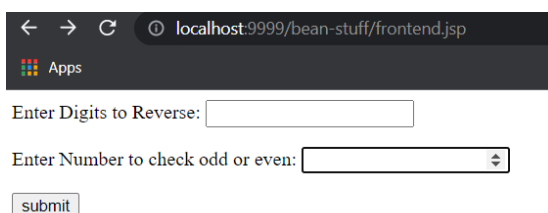

```

<%@ page contentType="text/html" pageEncoding="utf-8" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>

<html>
  <head>
    <title>Reverse and Odd/Even</title>
  </head>
  <body>
    <form action="frontend.jsp" method="post">
      <div id="rev">
        <p>Enter Digits to Reverse: <input type="number"
name="rev-digits"/> </p>
      </div>
      <div id="oddeve">
        <p>Enter Number to check odd or even: <input
type="number" name="oddeve-digits"/> </p>
      </div>
      <input type="submit" name="submit" value="submit"/>
    </form>
    <jsp:useBean id="revBean" class="revoddeve.revBean"/>
    <jsp:useBean id="oddeveBean" class="revoddeve.oddeveBean"/>
    <%
      if (request.getParameter("submit") != null) {
        int revdigits =
Integer.parseInt(request.getParameter("rev-digits"));
        int oddevedigits =
Integer.parseInt(request.getParameter("oddeve-digits"));
        out.println(revBean.reverseDigits(revdigits));
        out.println(oddeveBean.oddOrEven(oddevedigits));
      }
    %>
  </body>
</html>

```

Thats it! Now open click admin in your XAMPP tomcat and add /bean-stuff/frontend.jsp in the browser bar



← → ↻ ① localhost:9999/bean-stuff/frontend.jsp

Apps

Enter Digits to Reverse:

Enter Number to check odd or even:

Q7

4. Write an Ajax Post request to send one name and one number to .jsp file. Retrieve both the inputs in the .jsp file. Using the retrieved number perform factorial of 5 and display the result in the requested page.

ajax_post.html

```
<!DOCTYPE html>
<html>
<head>
    <title>Ajax Post Request</title>
</head>
<body>
    <p>Enter name<input type="text" name="name" id="name"/></p>
    <p>Enter number<input type="number" name="number" id="number"/></p>
    <div id="res"></div>
    <button id="submit-btn" onclick="sendPost()">Submit</button>
    <script>
        function sendPost() {
            console.log("sending..");
            var name = document.getElementById("name").value;
            var number = document.getElementById("number").value;
            var xhttp = new XMLHttpRequest();
            xhttp.open("POST", "submit.jsp?name=" + name + "&number=" +
number, true);
            xhttp.onreadystatechange = function () {
                if (xhttp.status == 200 && xhttp.readyState == 4) {
                    document.getElementById("res").innerHTML =
"Factorial is: " + xhttp.responseText;
                }
            }
            xhttp.send();
        }
    </script>
</body>
</html>
```

submit.jsp

```
<%@page contentType="text/plain" pageEncoding="utf-8"%>
<%
    int num = Integer.parseInt(request.getParameter("number"));
    String name = request.getParameter("name");
```

```
int result = 1;
while(num != 0) {
    result *= num;
    num -= 1;
}
out.print(result);
%>
```