1.registration page

```
<?php
if(isset($_POST['submit']))
{
$email=$_POST['email'];
$password=$_POST['password'];
$mobile=$_POST['mobile'];
$conn=mysqli_connect("localhost","root","","test");
if($conn){
	echo "database connection established";
	$checkquery="SELECT * FROM `users` WHERE email='$email' and
password='$password'";
$result=mysqli_query($conn,$checkquery);
$count=mysqli_num_rows($result);
if($count==1)
{
	echo "user already registered.please login !";
}
else{
$query="INSERT INTO `users`(`email`, `password`, `mobile`) VALUES
('$email','$password','$mobile')";
$result1=mysqli_query($conn,$query);
if($result1){
	echo "registration succesfull";
}
else{
	echo "registration unsuccessful";
}
}
}
else{
	echo "db conn not established";
}

}
?>

<html>
<body>
	<form action="" method="POST">
		<input type="email" placeholder="Enter email" name="email" required><br>
		<input type="password" placeholder="enter password" name="password"
required><br>
```

```
		<input type="tel" name="mobile" placeholder="enter mobile number"
required><br>
		<input type="submit" name="submit">
	</form>
</body>
</html>
```

Login Page

```
<?php
if(isset($_POST['submit']))
{
$email=$_POST['email'];
$password=$_POST['password'];
$conn=mysqli_connect("localhost","root","","test");
if($conn){
	echo "database connection established";
	$checkquery="SELECT * FROM `users` WHERE email='$email' and
password='$password'";
$result=mysqli_query($conn,$checkquery);
$count=mysqli_num_rows($result);
if($count==1)
{
	echo "Login succesful";
}
else{
	echo "login unsuccess";
}
}
else{
	echo "db conn not established";
}

}
?>

<html>
<body>
	<form action="" method="POST">
		<input type="email" placeholder="Enter email" name="email" required><br>
		<input type="password" placeholder="enter password" name="password"
required><br>
```

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

2. Create a PHP program to add 2 numbers, which were received from a HTML page and display the result back onto the html page.

```
<?php
if(isset($_POST['submit']))
{
        $num1=$_POST['num1'];
        $num2=$_POST['num2'];
        echo "Addition of two numbers is : ".($num1+$num2);

}
?>
<html>
<body>
<form action="" method="POST">
        <input type="number" name="num1" value="<?php if($num1) echo $num1 ?>" required>
        <input type="number" name="num2" value="<?php if($num2) echo $num2 ?>" required>
        <input type="submit" name="submit">
</form>
</body>
</html>
```

3. Design a dynamic web page with validation using JavaScript.

```
<!DOCTYPE html>
<html>
<head>
        <title>form</title>
</head>
<body>
        <form action="#" method="POST" onsubmit="return fun()" style="text-align: center;"
action="action.php">
            Name:<input type="text" name="name" id="name" required>
            <div style="font-size: 15px; color: red;" id="n1"></div>
```

```
        <br>
        UserName:<input type="text" name="uname" id="uname" required>
        <div style="font-size: 15px; color: red;" id="n2"></div>
        <br>
        Password:<input type="password" name="pwd" id="pwd" required>
        <div style="font-size: 15px; color: red;" id="n3"></div>
        <br>
        Email:<input type="text" name="email" id="email" required>
        <div style="font-size: 15px; color: red;" id="n4"></div>
        <br>
        Place:<input type="text" name="place" id='place' required>

        <br>
        <input type="submit" value="submit" >
          
        <input type="reset" name="reset" >
</form>
<script type="text/javascript">
        function fun()
        {

                document.getElementById("n1").innerHTML=""
                document.getElementById("n2").innerHTML=""
                document.getElementById("n3").innerHTML=""
                document.getElementById("n4").innerHTML=""


                var name =document.getElementById('name').value;
                var uname=document.getElementById('uname').value;
                var pwd=document.getElementById('pwd').value;
                var email=document.getElementById('email').value;
                 var ru=/^[a-zA-Z0-9]+$/;
                var rp=/^(?=.*\d)(?=.*[a-z])(?=.*[A-Z])(?=.*[^a-zA-Z0-9])(?!.*\s).{8,}$/;
                var words = name.split(" ");
                var rem=/^^[a-zA-Z][-_.a-zA-Z0-9]{5,29}@gmail.com$/;

                for (let i = 0; i < words.length; i++) {
                words[i] = words[i][0].toUpperCase() + words[i].substr(1);
                        }

                var k=words.join(" ");
```

```
                        if (name!=k) {
                                document.getElementById("n1").innerHTML="The first Letter of
every word in the name should be Capital.";
                                return false;
                        }
                        else if(uname.length!=10){
                                document.getElementById("n2").innerHTML="The Username can
be anything with letters and numbers.(Must be of length 10 characters)";
                                return false;
                        }
                        else if(!uname.match(ru)){
                                document.getElementById("n2").innerHTML="The Username can
be anything with letters and numbers.(Must be of length 10 characters)";
                                return false;

                        }
                        else if(!pwd.match(rp)){
                                document.getElementById("n3").innerHTML="The password must
contain a capital letter, a small letter, a number and a special character. It should be minimum of
8 characters and maximum of characters.";
                                return false;

                        }
                        else if(!email.match(rem)){
                                document.getElementById("n4").innerHTML="Email should
contain '@gmail.com' in the end";
                                return false;
                        }
                        var nm1=uname.slice(0,3);
                        var nm2=uname.slice(-3);
                        alert(nm1+nm2);


                        return true;


                }
        </script>



</body>
</html>
```

4. Create a servlet program to add 2 numbers, which were received from a HTML page and display the result back onto the html page

Add.html

```
<html>
<body>
<form action="add">
  Enter 1st number :<input type="text" name="num1"><br>
  enter 2nd number:<input type="text" name="num2"><br>
<input type="submit">
</form>

</body>
</html>
```

AdditionServlet.java

```
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import java.io.IOException;
import java.io.PrintWriter;
public class AdditionServlet extends HttpServlet
{

                public void service(HttpServletRequest req, HttpServletResponse res) throws
IOException
                {
                        int i=Integer.parseInt(req.getParameter("num1"));
                        int j=Integer.parseInt(req.getParameter("num2"));
                                int k=i+j;
                                //PrintWriter obj=new PrintWriter();
                                PrintWriter out=res.getWriter();
                                out.println("resultis"+k);
                        //System.out.println(k);
                }
        }
```

web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.jcp.org/xml/ns/javaee"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd" id="WebApp_ID" version="3.1">
  <display-name>add</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.htm</welcome-file>
    <welcome-file>default.jsp</welcome-file>
  </welcome-file-list>

  <servlet>
  <servlet-name>abc</servlet-name>
  <servlet-class>AdditionServlet </servlet-class>
   </servlet>

  <servlet-mapping>
  <servlet-name>abc</servlet-name>
  <url-pattern>/add</url-pattern>
  </servlet-mapping>

</web-app>
```

5. Create two Servlet programs, one to calculate total of 3 subject marks, received from the html page and other servlet to find the percentage of marks received from 1st servlet and display the result on to HTML page.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="servlet1" method="post">
  Enter 1st subject marks :<input type="text" name="num1"><br>
```

```
  enter 2nd subject marks:<input type="text" name="num2"><br>
  enter 3rd subject marks:<input type="text" name="num3"><br>
<input type="submit" value="calculate">
</form>
</body>
</html>
```

```
import java.io.IOException;
import java.io.PrintWriter;

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

public class TotalServlet extends HttpServlet {

	protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
		response.setContentType("text/html");
		  PrintWriter out = response.getWriter();

		  int m1=Integer.parseInt(request.getParameter("num1"));
		  int m2=Integer.parseInt(request.getParameter("num2"));
		  int m3=Integer.parseInt(request.getParameter("num3"));
		  int total=m1+m2+m3;
		  String s=String.valueOf(total);
		  request.setAttribute("total",s);
		  RequestDispatcher rd=request.getRequestDispatcher("servlet2");
		  rd.forward(request, response);


	}

}
```

```
import java.io.IOException;
import java.io.PrintWriter;

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


public class AverageServlet extends HttpServlet {
	protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {

		response.setContentType("text/html");
	    PrintWriter out = response.getWriter();

	    String s=(String) request.getAttribute("total");
	    int total=Integer.parseInt(s);
	    int avg=total/3;
	    out.print("total "+total);
	    out.print("average "+avg);
	}

}
```

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.jcp.org/xml/ns/javaee"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd" id="WebApp_ID" version="3.1">
  <display-name>marks</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.htm</welcome-file>
    <welcome-file>default.jsp</welcome-file>
  </welcome-file-list>
   <servlet>
    <servlet-name>servlet1</servlet-name>
    <servlet-class>TotalServlet</servlet-class>
```

```
  </servlet>
  <servlet>
    <servlet-name>servlet2</servlet-name>
    <servlet-class>AverageServlet</servlet-class>
  </servlet>


  <servlet-mapping>
    <servlet-name>servlet1</servlet-name>
    <url-pattern>/servlet1</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>servlet2</servlet-name>
    <url-pattern>/servlet2</url-pattern>
  </servlet-mapping>
</web-app>
```

6. Differentiate GET and POST methods using a PHP code.

```
<?php
if(isset($_POST['postm'])){
        $num1=$_POST['num1'];
        $num2=$_POST['num2'];
        echo "data obtained in the post array and data also not visible in url"."<br>";
        echo "data received is :".$num1." and ".$num2;

}
if(isset($_GET['getm'])){
        $num1=$_GET['num1'];
        $num2=$_GET['num2'];
        echo "data obtained in the get method and data also visible in url and one can change
the values in url"."<br>";
        echo "data received is :".$num1." and ".$num2;

}
?>
<html>
        <body>
                <h2>POST method example</h2>
                <form action="" method="POST">
                        <input type="number" name="num1"><br>
                        <input type="number" name="num2"><br>
                        <input type="submit" name="postm">
                </form>
```

```
                <br>
                <br>
                <h2>GET method example</h2>
                <form action="" method="GET">
                        <input type="number" name="num1"><br>
                        <input type="number" name="num2"><br>
                        <input type="submit" name="getm">
                </form>
        </body>
</html>
```

7. Differentiate between Service, GET and POST methods in Servlets with code
https://www.knowprogram.com/servlet/doget-dopost-in-servlet-example/
https://www.tutorialspoint.com/servlets/servlets-form-data.htm

8. Design a web page consisting of a) Home page b) Login page c) Catalogue page
9. Create a table which should contain at least the following fields: name, password, emailid, phone number (these should hold the data from the registration form).
a) Write a PHP program to connect to that database and extract data from the tables and display them.

```
<!DOCTYPE html>
<html>
<head>
        <meta charset="utf-8">
        <title>registration form</title>
</head>
<body>
        <?php
        if(isset($_POST['register'])){
                $name=$_POST['name'];
                $password=$_POST['password'];
                $email=$_POST['email'];
                $mobile=$_POST['number'];
                $conn=mysqli_connect("localhost","root","","test");
                if($conn){
                        $query="INSERT INTO `reg` (`name`,`password`,`email`,`mobile`)
VALUES ('$name','$password','$email','$mobile')";
                        $res=mysqli_query($conn,$query);
                        if($res){
                                echo $name."Registered successfully";
                        }
                        else{
```

```
                        echo "registration failed";
                    }
                }
                else{
                    echo "Failed to connect database";
                }

        }
        ?>
        <form action="" method="POST">
        name:
        <input type="text" name="name" placeholder="name">
        <br>
        password:
        <input type="password" name="password" placeholder="password">
        <br>
        email:
        <input type="email" name="email" placeholder="email">
        <br>
        number:
        <input type="text" name="number" placeholder="number">
        <br>
        <input type="submit" name="register" value="register">
</form>
</body>
</html>
```

b) Insert the details of the users who register with the web site, whenever a new user clicks the submit button in the registration page.

```
<?php
$conn=mysqli_connect("localhost","root","","test");
if($conn){
        $query='select * from reg';
        $result=mysqli_query($conn,$query);
        if($result){
        ?>
            <h1 align="center" style="padding-top:30px">Details</h1>
            <table border="1" cellspacing="0" align="center">
                <tr>
                    <th>Name</th>
                    <th>password</th>
                    <th>email</th>
```

```
                        <th>mobile</th>
                    </tr>
                <?php
                while($row=mysqli_fetch_assoc($result)){
                ?>
                <tr>
                    <td><?php echo $row['name']; ?></td>
                    <td><?php echo $row['password']; ?></td>
                    <td><?php echo $row['email']; ?></td>
                    <td><?php echo $row['mobile']; ?></td>
                </tr>
        <?php } ?>
</table>
<?php }
?>
<?php
}
?>
```

10. Write a Jsp Code to insert values(into a table studentno1 were attributes are (studentid , studentname , studentcourse).

```
<!DOCTYPE html>
<html>
<body>
<form method="post" action="process.jsp">
Id:<br>
<input type="text" name="id">
<br>
Name:<br>
<input type="text" name="name">
<br>
Course:<br>
<input type="text" name="course">
<br>
<br>
<input type="submit" value="submit">
</form>
</body>
</html>
```

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

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

<%
String id=request.getParameter("id");
String name=request.getParameter("name");
String course=request.getParameter("course");


try
{
Class.forName("com.mysql.jdbc.Driver");
Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/test", "root", "");
Statement st=conn.createStatement();

int i=st.executeUpdate("insert into
users(id,name,course)values('"+id+"','"+name+"','"+course+"')");
out.println("Data is successfully inserted!");
}
catch(Exception e)
{
System.out.print(e);
e.printStackTrace();
}
%>
```

11. Design a HTML having a text box and one button viz Factorial. When a button is pressed an appropriate javascript function should be called to display Factorial of that number.

```
<!DOCTYPE html>
<html>
<head>
</head>
<body style = "text-align: center; font-size: 20px;">

Enter a number: <input id = "num">
<br><br>
<button onclick = "fact()"> Factorial </button>
<p id = "res"></p>
<script>
function fact(){
var i, num, f;
f = 1;
num = document.getElementById("num").value;
```

```
for(i = 1; i <= num; i++)
{
f = f * i;
}
document.getElementById("res").innerHTML = "The factorial of the number " + num + " is: " + f ;
}
</script>
</body>
</html>
```

12. Write a Jsp code to Successfully connect to MySql Database and retrieve values from a database table

```
<%@page import="java.sql.DriverManager"%>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="java.sql.Connection"%>
<%
String id = request.getParameter("userid");
String driver = "com.mysql.jdbc.Driver";
String connectionUrl = "jdbc:mysql://localhost:3306/";
String database = "test";
String userid = "root";
String password = "";
try {
Class.forName(driver);
} catch (ClassNotFoundException e) {
e.printStackTrace();
}
Connection connection = null;
Statement statement = null;
ResultSet resultSet = null;
%>
<!DOCTYPE html>
<html>
<body>

<h1>Retrieve data from database in jsp</h1>
<table border="1">
<tr>
<td>id</td>
```

```
<td>name</td>
<td>course</td>


</tr>
<%
try{
connection = DriverManager.getConnection(connectionUrl+database, userid, password);
statement=connection.createStatement();
String sql ="select * from users";
resultSet = statement.executeQuery(sql);
while(resultSet.next()){
%>
<tr>
<td><%=resultSet.getString("id") %></td>
<td><%=resultSet.getString("name") %></td>
<td><%=resultSet.getString("course") %></td>

</tr>
<%
}
connection.close();
} catch (Exception e) {
e.printStackTrace();
}
%>
</table>
</body>
</html>
```

8. Design a web page consisting of a) Home page b) Login page c) Catalogue page

```
<html>
	<head>
		<title>FRAME SET</title>
	</head>
		<frameset rows="25%,10%,*">
			<frame src="file1.html" name="fr1"></frame>
			<frame src="file2.html" name="fr2"></frame>
			<frameset cols="10%,*">
				<frame src="file3.html" name="fr3"></frame>
				<frame src="homepage.html" name="home"></frame>
```

```
                </frameset>
        </frameset>
</html>



<html>
<head></head>
    <body>
        <center>
            <h1 style="color:red; ">WELCOME TO SRKR ONLINE BOOK
STORE</h1>

            <p  style="font-family: verdana;  font-size: 20px;">
                Sagi Rama Krishnam Raju Engineering College is a
Co-educational, Independent and a Self Financed Engineering College. It is one of the oldest
institutes formed in 1980's to provide a better quality technical education to students.<br>Here
you can find all collections of books for every branch in the college  <br> you can go through
them accordingly. </p>
        </center>
    </body>
</html>

<html>

    <body>
        <center><h1>Book Details</h1></center>
        <a name=IT></a>
        <table  border =1 width="100%">
            <tr>
            <th colspan="4">IT</th>
            </tr>
            <tr>
            <td><img src="wt.png" width=90 height=120></td>
                <td width="250"><b>Book:</b>Pro Java
Programming<br><b>Author:</b>Brett Spell<br><b>Publication:</b>Wiely<br></td>
                <td width="250">₹97.00</td>
                <td width="250"><input type="button" value="Add to
cart"></input></td>
            </tr>
            <tr>
            <td width="250"><img src="it.jpg" height="120" width="90"/></td>
```

```
                                <td
width="250"><b>Book:</b>Compilers<br><b>Author:</b>Alfred V.Aho<br><b>Publication:</b>
Pearson</td>
                                <td width="250">₹227.20</td>
                                <td width="250"><input type="button" value="Add to
cart"></input></td>
                        </tr>
                        <tr>
                                <td width="250"><img src="it1.png" height="120"
width="90"/></td>
                                <td width="250"><b>Book:</b>Automata Theory ,Languages ,and
Computations<br><b>Author:</b>John E.Hopcroft<br><b>Publication:</b> Pearson</td>
                                <td width="250">₹480.20</td>
                                <td width="250"><input type="button" value="Add to
cart"></input></td>
                        </tr>
                        </table>
                        </body>
</html>
```

7.Differentiate between Service, GET and POST methods in Servlets with code

1) GET METHOD PROGRAM

P: Write a servlet program for the addition of 2 numbers using "get" method & doGet()

① project name: Demoone

Html: ~~Formaction Helloderno~~ adding.html

```
<html>
  <body>
    <form action = "add1" method = "get">
      Enter 1st num: <input type = "text"
                      name = "n1"><br>
      Enter 2nd num: <input type = "text"
                      name = "n2"><br>
      <input type = "submit">
    </form>
  </body>
</html>
```

Servlet DemoServlet1.java

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.annotation.WebServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

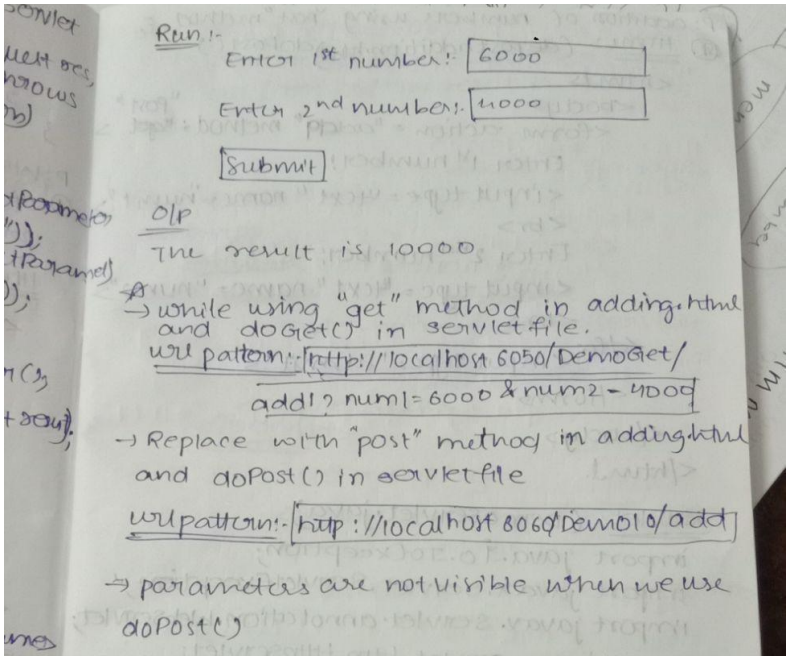
```
public class DemoServlet1 extends HttpServlet
{
    public void doGet (HttpServletRequest req,
        HttpServletResponse res) throws
        IOException, ServletException)
    {
        int a1 = Integer.parseInt (req.getParameter
                                   ("n1"));
        int a2 = Integer.parseInt(req.getParameter)
                                   ("n2"));
        int result = a1+a2;
        PrintWriter out=res.getWriter();
        out.println("The result is "+res);
    }
}
```

xml (web.xml)

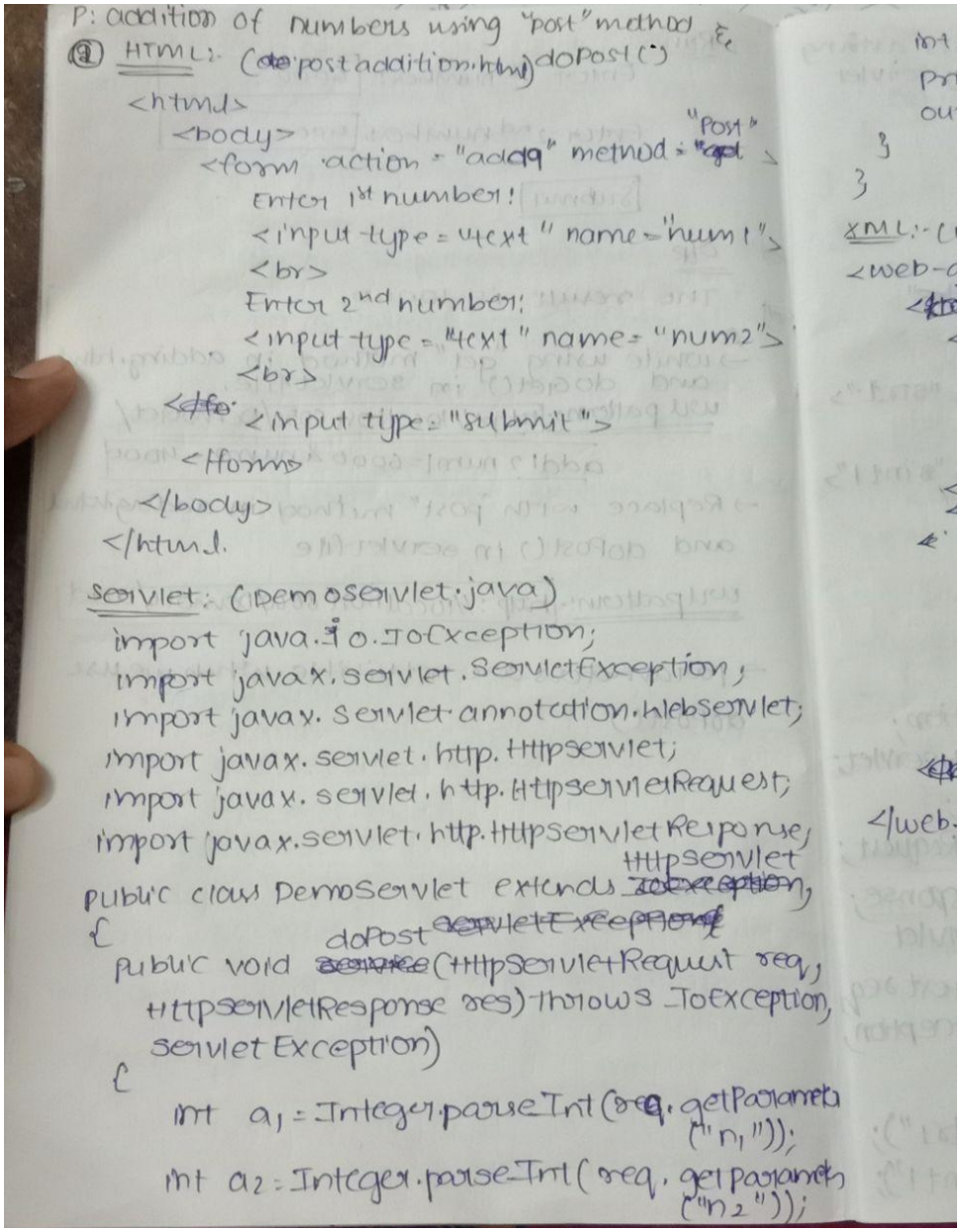
```
<web-app ---- -- >
  <servlet>
    <servlet-name>abc</servlet-name>
    <servlet-class> Demoone servlet1
    </servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>abc</servlet-name>
    <url-pattern>/add1</url-pattern>
  </servlet-mapping>
</web-app>
```

add1

not filename of html we have to give the name that we mentioned in the action



2) POST METHOD PROGRAM



P: addition of numbers using "post" method &
② HTML: (postaddition.html) doPost()

```
<html>
  <body>
    <form action = "addpg" method = "post">
      Enter 1st number:
      <input type = "text" name = "num1">
      <br>
      Enter 2nd number:
      <input type = "text" name = "num2">
      <br>
      <input type = "submit">
    </form>
  </body>
</html>
```

Servlet: (DemoServlet.java)

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class DemoServlet extends HttpServlet
{
  public void doPost(HttpServletRequest req,
    HttpServletResponse res) throws IOException,
    ServletException)
  {
    int a1 = Integer.parseInt(req.getParameter
      ("n1"));
    int a2 = Integer.parseInt(req.getParameter
      ("n2"));
```

3) SERVICE METHOD PROGRAM

③ Write a servlet program which takes a string and integer and prints them using servlet programming.

HTML: (one.html)

```
<html>
  <body>
    <form action = "hello">
      Enter string:
      <input type="text" name="str1">
      Enter integer:
      <input type="text" name="int1">
    </form>
  </body>
</html>
```

servlet:-

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
Public class Demoone extends HttpServlet
{
  public void service(HttpServletRequest req,
  HttpServletResponse res) throws IOException,
                                  ServletException
  {
    String s=req.getParameter("str1");
    int a = Integer.getParameter("int1");
```

XML:-

```
<web-
```

I/P:

O/P:

```
        PrintWriter out=res.getWriter();
        out.println("string is= "+s);
        out.println("integer is = "+a);
    }
}
```

XML:- (web.xml)

```
<web-app ------->
    <servlet>
        <servlet-name>abc</servlet-name>
        <servlet-class> Demoone
        </servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>abc</servlet-name>
        <url-pattern>/hello</url-pattern>
    </servlet-mapping>
</web-app>
```

I/P:- (new)

Enter string: welcome

Enter Integer: 100

Submit

O/P:-

The string is welcome

The integer is 100