

# JAVA DA 6 Lab Assignment (servlets)

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19BCB0086

Get the following details from the user in a HTML form

Name :

Mobile :

E-Mail :

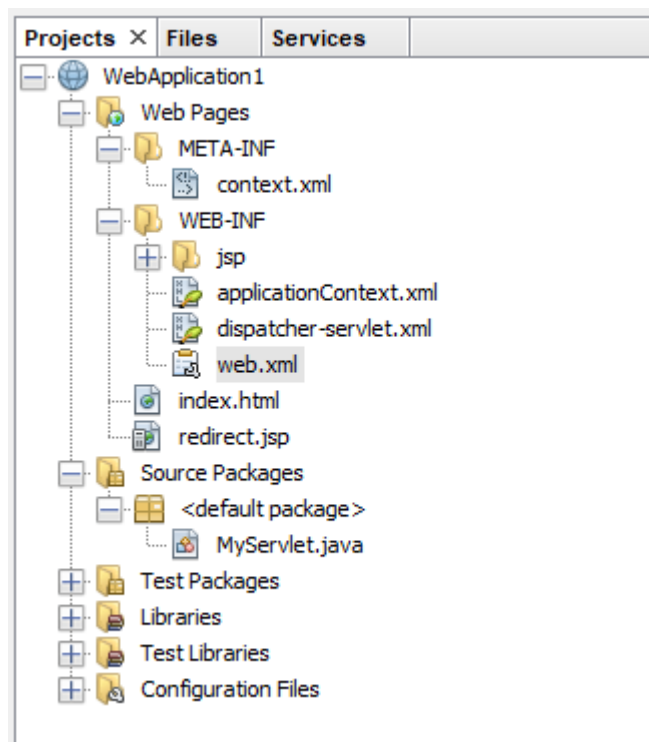
Year :( 2016 to 2021) (choice of UI control)

ANNUAL SALARY:

Write a servlet program to calculate the Income Tax based on the slab rates given below and display the User Details along with the Amount Tax to be paid in the output screen.

Income Slabs	Income Tax Rates
Upto Rs. 2,50,000	Nil
Rs. 2,50,001 to Rs. 5,00,000	5%
Rs. 5,00,001 to Rs. 7,50,000	10%
Rs. 7,50,001 to Rs. 10,00,000	15%
Rs. 10,00,001 to Rs. 12,50,000	20%
Rs 12,50,001 to Rs 15,00,000	25%
Above Rs. 15,00,000	30%

## FILE STRUCTURE



# CODE

## index.html

```
<html>
  <head>
    <title>FORM</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <style>
      div {
        width: 200px;
        border: 15px solid green;
        padding: 50px;
        margin: 20px;
      }
    </style>
  </head>
  <body>
    <h1> INCOME TAX calculator </h1>
    <div class="box">
      <form action="hello" method="GET">
        <label for="fname">First name:</label><br>
        <input type="text" id="fname" name="fname" value=""><br>
        <label for="lname">Last name:</label><br>
        <input type="text" id="lname" name="lname" value=""><br>
        <label for="email">Email:</label><br>
        <input type="email" id="email" name="email" value=""><br>
        <label for="num">Mobile Number:</label><br>
        <input type="number" id="num" name="num" value=""><br>
        <label for="sal">Annual Salary:</label><br>
        <input type="number" id="sal" name="sal" value=""><br>

        <br>
        <label for="year">Choose a year:</label>

        <select name="year" id="year">
          <option value="2016">2016</option>
          <option value="2017">2017</option>
          <option value="2018">2018</option>
          <option value="2019">2019</option>
          <option value="2020">2020</option>
          <option value="2021">2021</option>
        </select>
      <br>
    </div>
  </body>
</html>
```

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

## **MyServlet.java**

```
import java.io.IOException;
import java.io.PrintWriter;
import static java.lang.Double.min;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class MyServlet extends HttpServlet {
    protected void processRequest(HttpServletRequest request, HttpServletResponse
response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            /* TODO output your page here. You may use following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet MyServlet</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<h1>Servlet MyServlet at " + request.getContextPath() + "</h1>");
            out.println("</body>");
            out.println("</html>");
        }
    }

    /**
     * Handles the HTTP <code>GET</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     */
    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on
the left to edit the code.">
```

```

    * @throws IOException if an I/O error occurs
    */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<style>\n" +
            "    div {\n" +
            "        width: 200px;\n" +
            "        border: 15px solid green;\n" +
            "        padding: 50px;\n" +
            "        margin: 20px;\n" +
            "    }\n" +
            "</style>");

        out.println("<div class=\"box\">");
        out.println("<h3>User Details</h3>");
        out.println("Name: "+request.getParameter("fname")+"
"+request.getParameter("lname")+"<br>");
        out.println("Email:"+request.getParameter("email")+"<br>");
        out.println("Mobile number: "+request.getParameter("num")+"<br>");
        out.println("Year: "+request.getParameter("year")+"<br>");
        out.println("Annual Salary: "+request.getParameter("sal")+"<br>");

        double salary=Integer.parseInt(request.getParameter("sal"));
        double Amt=0;
        if (salary<=250000){
            Amt+=0;
        }
        if(salary>250000){
            salary-=250000;
            Amt+=min(12500,0.05*salary);
        }
        if(salary>250000){
            salary-=250000;
            Amt+=min(25000,0.1*salary);
        }
        if(salary>250000){
            salary-=250000;
            Amt+=min(37500,0.15*salary);
        }
        if(salary>250000){
            salary-=250000;

```

```

        Amt+=min(50000,0.2*salary);
    }
    if(salary>250000){
        salary-=250000;
        Amt+=min(62500,0.25*salary);
    }
    if(salary>250000){
        salary-=250000;
        Amt+=0.30*salary;
    }

    out.println("<h2>Tax to be paid is Rs."+Amt+"</h2>");
}

/**
 * Handles the HTTP <code>POST</code> method.
 *
 * @param request servlet request
 * @param response servlet response
 * @throws ServletException if a servlet-specific error occurs
 * @throws IOException if an I/O error occurs
 */
@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    processRequest(request, response);
}

/**
 * Returns a short description of the servlet.
 *
 * @return a String containing servlet description
 */
@Override
public String getServletInfo() {
    return "Short description";
}
}

```

## **Web.xml**

```

<?xml version="1.0" encoding="UTF-8"?>
<web-app version="3.0" xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

```

```

xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd">
  <context-param>
    <param-name>contextConfigLocation</param-name>
    <param-value>/WEB-INF/applicationContext.xml</param-value>
  </context-param>
  <listener>
    <listener-class>org.springframework.web.context.ContextLoaderListener</listener-
class>
  </listener>
  <servlet>
    <servlet-name>dispatcher</servlet-name>
    <servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-class>
    <load-on-startup>2</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>hello</servlet-name>
    <servlet-class>MyServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>dispatcher</servlet-name>
    <url-pattern>*.htm</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>hello</servlet-name>
    <url-pattern>/hello</url-pattern>
  </servlet-mapping>
  <session-config>
    <session-timeout>
      30
    </session-timeout>
  </session-config>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
  </welcome-file-list>
</web-app>

```

## **Redirect.jsp**

```
<%--
```

Views should be stored under the WEB-INF folder so that they are not accessible except through controller process.

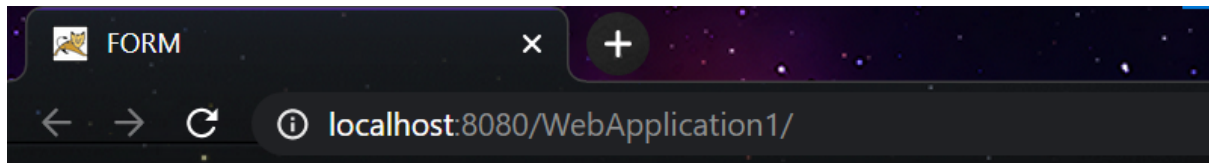
This JSP is here to provide a redirect to the dispatcher servlet but should be the only JSP outside of WEB-INF.

```
--%>
```

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
```

```
<% response.sendRedirect("index.htm"); %>
```

## Output



# INCOME TAX calculator

First name:

Arshdeep Singh

Last name:

Bhatia

Email:

arshdeepdgreat@gmail.com

Mobile Number:

8754541603

Annual Salary:

1000000

Choose a year:

2016 ▾

2016

2017

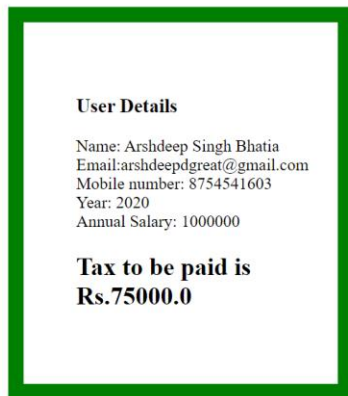
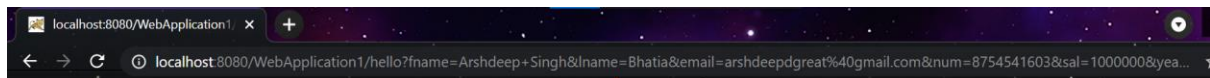
2018

2019

2020

2021

Submit



GET  
Method

---

Answer is output in a html page