

# TRINITY INTERNATIONAL COLLEGE

(Tribhuvan University Affiliated)



Lab Report:7 Servlets and Java Server Pages

**Submitted by:**

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Semester: 7<sup>th</sup>  
Date : 25/06/2020

**Submitted to:**

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Aman Maharjan

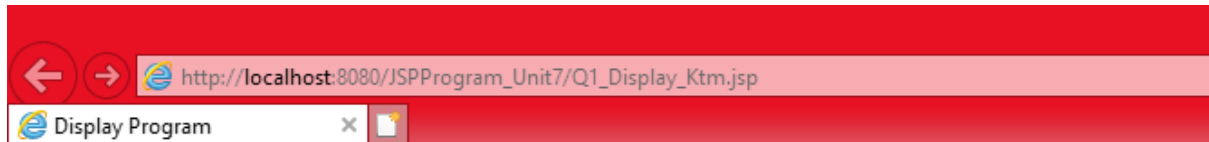
KATHMANDU, NEPAL  
2020

**1) Write a simple JSP program to display “Kathmandu, Nepal” 10 times. [2069]**

**Program:**

```
<%--
    Document      : Q1_Display_Ktm
    Created on    : 25-Jun-2020, 12:36:57
    Author       : anusha
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html;
charset=UTF-8">
        <title>Display Program</title>
    </head>
    <body>
        <h1>Displaying Kathmandu,Nepal 10 Times</h1><hr>
        <%
            for (int i = 1; i <= 10; i++) {
                out.println("Kathmandu,Nepal <br>");
            }
        %>
    </body>
</html>
```



## Displaying Kathmandu,Nepal 10 Times

---

Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal  
Kathmandu,Nepal

**2) Write a simple JSP program to display “Lalitpur, Nepal” 10 times. [2070]**  
**Program:**

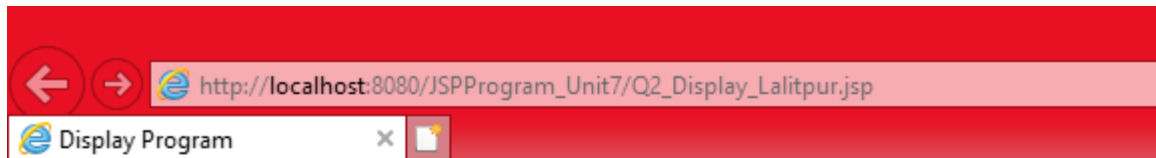
```
<%--
```

```

Document    : Q2_Display_Lalitpur
Created on  : 25-Jun-2020, 12:43:53
Author      : user
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Display Program</title>
    </head>
    <body>
        <h1>Displaying Lalitpur,Nepal 10 Times</h1><hr>
        <%
            for (int i = 1; i <= 10; i++) {
                out.println("Lalitpur,Nepal <br>");
            }
        %>
    </body>
</html>

```



## Displaying Lalitpur,Nepal 10 Times

---

Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal  
 Lalitpur,Nepal

**3) Write a simple JSP program to display “Tribhuvan University” 10 times.  
[2071, 2074]**

**Program:**

```

<%--
Document    : Q3_Display_TU
Created on  : 25-Jun-2020, 12:46:38

```

```

    Author      : user
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Display Program</title>
    </head>
    <body>
        <h1>Displaying Tribhuvan University 10 Times</h1><hr>
        <%
            for (int i = 1; i <= 10; i++) {
                out.println("Tribhuvan University <br>");
            }
        %>
    </body>
</html>

```



## Displaying Tribhuvan University 10 Times

---

Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University  
 Tribhuvan University

### 4) Write a program that to illustrate the use of JSP. [2073]

#### Program:

#### Q4 Illustrate JSP.jsp

```

<%--
    Document    : Q4_Illustrate_JSP
    Created on  : 25-Jun-2020, 12:52:07
    Author      : user
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>

```

```

        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Illustrate JSP</title>
    </head>
    <body>
        <h1>Welcome to Guessing Game!!!<hr></h1>

        <form action="Q4_GuessResult.jsp" method="POST">
            Enter a number between 1 and 100 :
            <input type="text" name="user_input">
            <input type="submit" name="submit">
        </form>
    </body>
</html>

```

### Q4\_GuessResult.jsp

```

<%--
    Document    : Q4_GuessResult
    Created on  : 25-Jun-2020, 13:15:01
    Author      : user
--%>

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

<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Guessing Game</title>
    </head>
    <body>
        <% int random_number = (int) (Math.random() * 100);%>

        <% String user_no = request.getParameter("user_input");%>
        <% int user_number = Integer.parseInt(user_no);%>

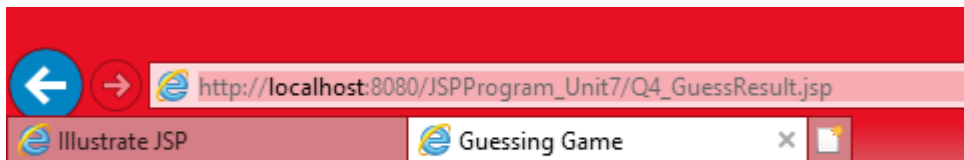
        <%
            if (random_number == user_number) {
                out.println("Congratulations!!!It was correct Guess!!!");
            } else {
                out.println("Oops!!!It was Incorrect Guess..\nTry
Again!!!");
                out.println("<br><br>The correct number was:" +
random_number);
            }
        %>
    </body>
</html>

```

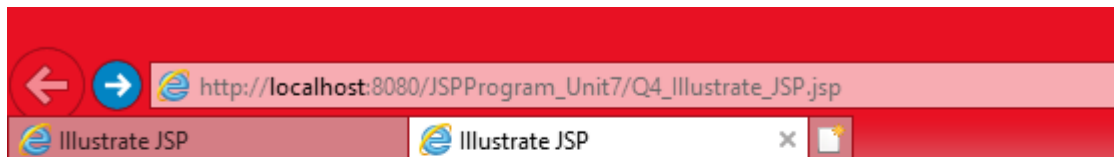


## Welcome to Guessing Game!!!

Enter a number between 1 and 100 :

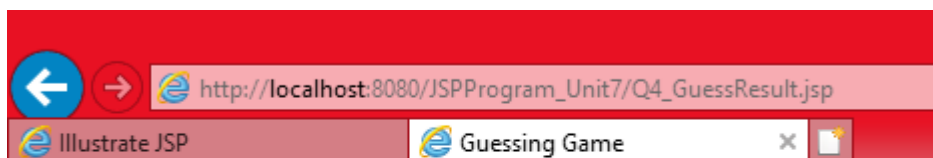


Congratulations!!!It was correct Guess!!!



## Welcome to Guessing Game!!!

Enter a number between 1 and 100 :



Oops!!!It was Incorrect Guess.. Try Again!!!

The correct number was:70

- 5) Write a program to create a JSP web form to take input of a student and submit it to second JSP file which may simply print the values of form submission. [2075]

**Program:**

### Q5 StudentForm.jsp

```
<%--
    Document      : Q5_StudentForm
    Created on    : 25-Jun-2020, 19:06:15
    Author       : user
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Student Record Form</title>
    </head>
    <body>
```

```

        <h1>Fill Up the Student Form!!!!<hr></h1>
        <form action="Q5_Student_Display.jsp" method="POST">
            Full Name :<input type="text" name="full_name"><br>
            Address   :<input type="text" name="address"><br>
            Age       :<input type="text" name="age"><br>
            College   :<input type="text" name="college_name"><br>
            Phone     :<input type="text" name="phone"><br>
            <input type="submit" name="submit">
        </form>
    </body>
</html>

```

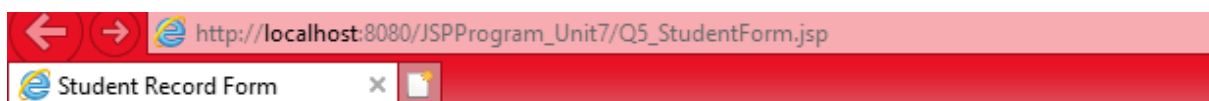
## Q5 Student Display.jsp

```

<%--
    Document      : Q5_Student_Display
    Created on    : 25-Jun-2020, 19:07:31
    Author       : user
-->

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Student Record</title>
    </head>
    <body>
        <h1>Student details of :
    <%=request.getParameter("full_name")%></h1>
        <p>
            Full Name:<%=request.getParameter("full_name")%><br>
            Address:<%=request.getParameter("address")%><br>
            Age:<%=request.getParameter("age")%><br>
            College:<%=request.getParameter("college_name")%><br>
            Phone:<%=request.getParameter("phone")%>
        </p>
    </body>
</html>

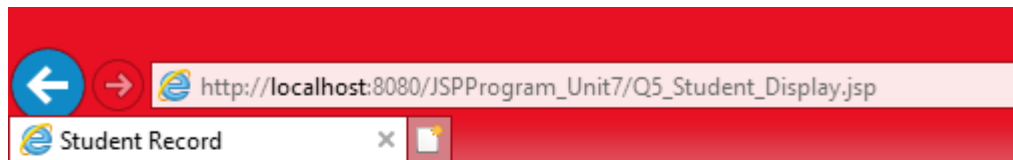
```



## Fill Up the Student Form!!!!

---

Full Name :   
 Address :   
 Age :   
 College :   
 Phone :



## Student details of : Ram

Full Name:Ram  
Address:MaitiDevi  
Age:17  
College:Nepal College  
Phone:1234567890

**6) Write a simple Servlet program to display “Kathmandu, Nepal” 10 times.**

### Program:

```
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;

/**
 *
 * @author user
 */
@WebServlet(urlPatterns = {"/Q6_Display_KTM"})
public class Q6_Display_KTM extends HttpServlet {

    /**
     * Processes requests for both HTTP GET and
     * POST methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    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>Display Kathmandu</title>");
        out.println("</head>");
        out.println("<body>");
        for(int i=1;i<=10;i++)
            out.println("<h4>Kathmandu,Nepal</h4>");
        out.println("</body>");
        out.println("</html>");
    }
}

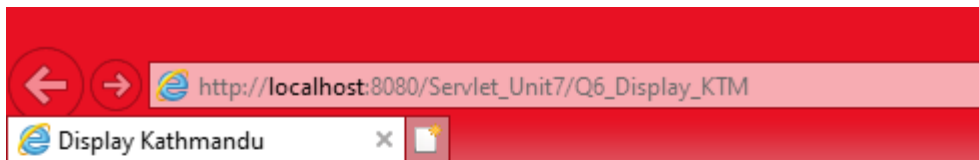
// <editor-fold defaultstate="collapsed" desc="HttpServlet methods.
Click on the + sign on the left to edit the code.">
/**
 * Handles the HTTP <code>GET</code> method.
 *
 * @param request servlet request
 * @param response servlet response
 * @throws ServletException if a servlet-specific error occurs
 * @throws IOException if an I/O error occurs
 */
@Override
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
    throws ServletException, IOException {
    processRequest(request, response);
}

/**
 * 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";
}

}

```



**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**Kathmandu,Nepal**

**7) Write a Servlet program to process a login form and authenticate the user. You can use hardcoded values for username and password.**

**Program:**

### **Q7\_login.html**

```
<html>
  <head>
    <title>Login Form</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  </head>
  <body>
    <h1>Welcome to Login Page !!!!</h1>
    <form action="Q7_LoginForm" method="POST">
      Username:<input type="text" name="username">
      <br/>
      Password:<input type="password" name="password">
      <br/>
    </form>
  </body>
</html>
```

```

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

```

## **Q7 LoginForm.java**

```

/*
 * To change this license header, choose License Headers in Project
Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

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;
import javax.servlet.http.HttpSession;

/**
 *
 * @author user
 */
@WebServlet(urlPatterns = {"/Q7_LoginForm"})
public class Q7_LoginForm extends HttpServlet {

    /**
     * Processes requests for both HTTP GET and
<code>POST</code>
     * methods.
     *
     * @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
    public void doPost(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 LoginFormjsp</title>");
            out.println("</head>");
            out.println("<body>");

```

```

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

        HttpSession session = request.getSession(true);
        if ((username.equalsIgnoreCase("anusha") &&
password.equalsIgnoreCase("anusha"))) {
            session.setAttribute("username", username);
            response.sendRedirect("Q7_Home");
        } else {
            out.println("\nLogin Unsuccessfull");
        }
        out.println("</body>");
        out.println("</html>");
    }
}
}

```

### **Q7\_Home.java**

```

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;
import javax.servlet.http.HttpSession;

@WebServlet(urlPatterns = {"/Q7_Home"})
public class Q7_Home extends HttpServlet {

    /**
     * Processes requests for both HTTP <code>GET</code> and
<code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    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 Home</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("Hello");

```

```

        HttpSession session=request.getSession(false);
        out.println(".....Welcome to the Java
Class,"+session.getAttribute("username").toString());
        out.println("</body>");
        out.println("</html>");
    }
}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods.
Click on the + sign on the left to edit the code.">
/**
 * Handles the HTTP <code>GET</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 doGet(HttpServletRequest request, HttpServletResponse
response)
    throws ServletException, IOException {
    processRequest(request, response);
}

/**
 * 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";
}
}
</editor-fold>
}

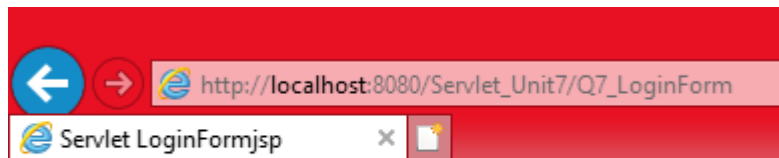
```



## Welcome to Login Page !!!!

Username:

Password:



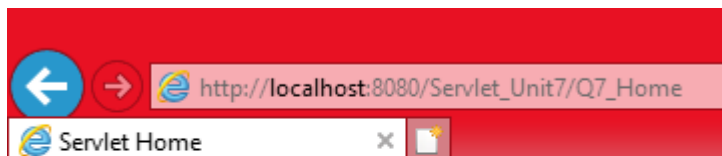
Login Unsuccessfull



## Welcome to Login Page !!!!

Username:

Password:



Hello .....Welcome to the Java Class,anusha