

JAVA PROGRAMS

Submitted by,

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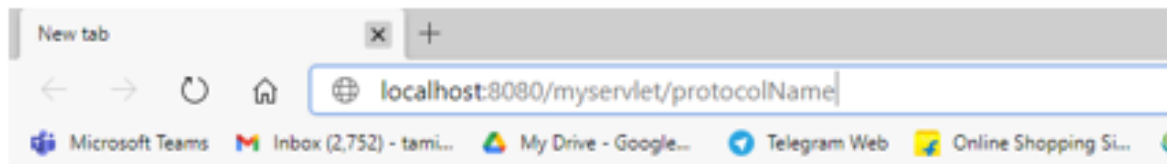
1. Write a servlet program that displays the protocol name, host details, current system date, and time.

Program

```
import java.util.Date;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class protocolName extends HttpServlet {
    protected void processRequest(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            Date nowDate = new Date();
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Display
Information</title>");
            out.println("</head>");
            out.println("<body style = 'font-family :
Roboto; font-size : 20px;'>");
            out.println("<p>Protocol Name : <span style
= 'color : blue'>" + request.getScheme() + "</span></p>");
            out.println("<p>Current Date and Time :
<span style = 'color : blue'>" + nowDate.toString() +
"</span></p>");
            out.println("<p>Client Info : <span style =
'color : blue'>" + request.getHeader("User-Agent") +
"</span></p>");
            out.println("<p>Server Info : <span style =
'color : blue'>" + getServletContext().getServerInfo() +
"</span></p>");
            out.println("</body>");
            out.println("</html>");
        }
    }
}
```

```
@Override
protected void doGet(HttpServletRequest request,
HttpServletRequest response) throws ServletException,
IOException {
    processRequest(request, response);
}
@Override
protected void doPost(HttpServletRequest request,
HttpServletRequest response) throws ServletException,
IOException {
    processRequest(request, response);
}
@Override
public String getServletInfo() {
    return "Short description";
}
}
```

Output



Protocol Name: [http](#)

Current Date and Time: [Sun Dec 06 22:22:51 IST 2020](#)

Client Info: [Chromium Edge \(Windows 10 Pro; Win64, x64, rv: 83.0\)](#)

Server info: [GlassFish Server Open Edition 5.1.0](#)

2.Design a web application using HTTP servlet that accepts user login information and welcomes the particular user by displaying the user name and the date of current session.

Program

```
import java.util.Date;
import java.io.IOException;
import java.io.PrintWriter;
import java.time.LocalDate;
import java.time.LocalDateTime;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class Login extends HttpServlet {
    static String[] username = {"Java", "java123"};
    static String[] password = {"passwd", "123"};
    protected void processRequest(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");

        try (PrintWriter out = response.getWriter()) {
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet Login</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<h1>Servlet Login at " + request.getContextPath() + "</h1>");
            out.println("</body>");
            out.println("</html>");
        }

        protected void showLoginForm(HttpServletRequest request, HttpServletResponse response) throws IOException, ServletException{
            response.setContentType("text/HTML");
            try(PrintWriter out = response.getWriter()){
```

```

        out.write("<html>");
        out.write("<title>Login</title>");
        out.write("<body style = 'padding : 100px; font-size : 20px; font-family : Roboto;'>");
        out.write("<form method = 'post'>");
        out.write("<label>Username : <input type = 'text' name = 'username' /></label><br>");
        out.write("<label>Password : <input type = 'password' name = 'password' /></label><br>");
        out.write("<input type = 'submit' id = 'login' value = 'Login' />");
        out.write("</form>");
        out.write("</body>");
        out.write("</html>");
    }
}

protected void showOutput(HttpServletResponse response, boolean logged, int index) throws IOException, ServletException{
    try(PrintWriter out = response.getWriter()){
        LocalDate today = LocalDate.now();
        out.write("<html>");
        out.write("<body style = 'padding : 100px; font-size : 20px; font-family : Roboto;'>");
        if(logged)
            out.write("<p>Successfully Logged in! Welcome " + Login.username[index] + " Today's Date : " + today.toString() + "</p>");
        else
            out.write("<p>Login Unsuccessful! Please Reload and Login again!</p>");
        out.write("</body>");
        out.write("</html>");
    }
}

protected void LoginAuthentication(HttpServletRequest request, HttpServletResponse response) throws IOException, ServletException{
    String uString = request.getParameter("username");
    String pString = request.getParameter("password");

```

```

        boolean found = false;
        int ans = -1;
        //Search our Database for username and password
        for(int i = 0;i < Login.username.length; i++){
            if(uString.equals(Login.username[i]) &&
pString.equals(Login.password[i])){
                found = true;
                ans = i;
                break;
            }
        }
        showOutput(response, found, ans);
    }
    @Override
    protected void doGet(HttpServletRequest request,
        HttpServletResponse response)throws ServletException,
        IOException {
        showLoginForm(request, response);
    }
    @Override
    protected void doPost(HttpServletRequest request,
        HttpServletResponse response) throws IOException,
        ServletException{
        LoginAuthentication(request, response);
    }
    @Override
    public String getServletInfo() {
        return "Short description";
    }
}

```

Output

Username: <input type="text" value="java"/>
Password: <input type="password" value="***"/>
<input type="button" value="Login"/>

Successfully Logged in! Welcome Java Today's Date: 2020-12-6
--

3. Implement a server-side java program using servlet. The program should allow a user to enter the feedback form for an employee. Once submitted the servlet should write the form data to a file and responds to the user with thank you message.

Program

```
import java.io.*;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class Feedback extends HttpServlet {
    static String[] employees = {"cpp", "java", "sharp",
    "python"};
    static int recordNo = 1;
    static String filename = "D:\\Temp\\feedback.txt";
    static File f = new File(filename);
    protected void showFeedbackForm(HttpServletRequest
request, HttpServletResponse response)throws
ServletException, IOException {
        response.setContentType("text/html;charset=UTF-
8");

        try ( PrintWriter out = response.getWriter()) {
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>User Feedback</title>");
            out.println("</head>");
            out.println("<body style = 'padding : 100px;
font-size : 20px; font-family : Roboto;'>");
            out.println("<form method = 'post'>");
            out.println("<label>Enter your name : <input
type = 'text' name = 'name' required></label><br><br>");
            out.println("<label>Choose Employee to give
Feedback : <select name = 'EmpName'>");
            for(int i = 0; i <
Feedback.employees.length; i++){
                out.println("<option value = '"+ i
+''">" + Feedback.employees[i] + "</option>");
```

```

        }
        out.println("</select></label>");
        out.println("<p>Rate your experience :
</p>");
        for(int i = 1; i <= 5; i++){
            out.println("<input type = 'radio' name
= 'stars' value = '" + i + "' required/><label for = '" + i
+ "'>");
            for(int j = 0; j < i ; j++)
                out.println("★");
            out.println("</label><br>");
        }
        out.println("<br><p>Any other suggestions :
</p>");
        out.println("<input type = 'text' name =
'suggestions' height = '50' width = '50' />");
        out.println("<br><br><input type = 'submit'
value = 'Submit Feedback' />");
        out.println("</form>");
        out.println("</body>");
        out.println("</html>");
    }
}

@Override
protected void doGet(HttpServletRequest request,
HttpServletResponse response)throws ServletException,
IOException {
    showFeedbackForm(request, response);
}

protected void processRequest(HttpServletRequest
request, HttpServletResponse response) throws IOException,
ServletException{
    String name = request.getParameter("name");
    String EmpName = request.getParameter("EmpName");
    String stars = request.getParameter("stars");
    String suggestions =
request.getParameter("suggestions");
    FileWriter fout = new FileWriter(f, true);
    fout.write("[ RECORD : " + recordNo + " ]\n");
    fout.write("Name : " + name + "\n");
    fout.write("Employee Name : " + EmpName + "\n");

```



```

        fout.write("Stars : " + stars + "\n");
        fout.write("Further Suggestions : " + suggestions
+ "\n");
        recordNo++;
        fout.close();
        PrintWriter out = response.getWriter();
        out.print("<h1>THANK YOU for your feedback " +
name +" !</h1>");
    }
    @Override
    protected void doPost(HttpServletRequest request,
HttpServletRequest response)throws ServletException,
IOException {
        processRequest(request, response);
    }
    @Override
    public String getServletInfo() {
        return "Short description";
    }
}

```

Output

Enter your name:

Choose Employee to give Feedback:

Rate your experience :

- ☐ ★
- ☐ ★ ★
- ☐ ★ ★ ★
- ☒ ★ ★ ★ ★
- ☐ ★ ★ ★ ★ ★

Any other suggestions :

THANK YOU for your feedback Vanan

```
*feedback.txt - Notepad
File Edit Format View Help
[ RECORD : 1 ]
Name: Vanan
Employee Name: java
Stars: 4
Further Suggestions: You are little fast!
```