<u>**Practical No. 4**</u>

Objective: A simple servlet Application. Taking a "username" and "password" from client in textboxes and displaying it back as response on clicking of "Submit" button.

Theory:

A Java servlet is a Java program that extends the capabilities of a server. Although servlets can respond to any types of requests, they most commonly implement applications hosted on Web servers. Such Web servlets are the Java counterpart to other dynamic Web content technologies such as PHP and ASP.NET.

Source Code:

Web-app:
```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app version="3.1" xmlns="http://xmlns.jcp.org/xml/ns/javaee" xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance" xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/
web-app_3_1.xsd">
    <servlet>
        <servlet-name>Intro</servlet-name>
        <servlet-class>P1.Intro</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>Intro</servlet-name>
        <url-pattern>/Intro</url-pattern>
    </servlet-mapping>
    <session-config>
        <session-timeout>
         30
        </session-timeout>
    </session-config>
</web-app>
```

Index.html:
```html
<html>
    <body>
        <form action="NewServlet" method="GET">
        Name: <input type="text" name="t1" value="" />
        Password:<input type="password" name="t2" value="" />
        <input type="submit" value="OK" name="S" />
        </form>
    </body>
</html>
```
Intro.java:
```java
package P1;

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 Intro extends HttpServlet {

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
    }
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        String name=request.getParameter("t1");
        String password=request.getParameter("t2");
        PrintWriter out = response.getWriter();
        out.write("Username:"+name);
        out.write("\n");
        out.write("password"+password);
        processRequest(request, response);
    }
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }
    @Override
    public String getServletInfo() {
        return "Short description";
    }
}
```

Output:

Username: user Password: root

Result: The given program has been compiled and executed successfully.