Servlet Basic Authentication

> ➢ **Basic Authentication Example Steps**

1. Create Login.html
2. Create FirstServet class
3. Configure FirstServlet in web.xml
4. Add security related tags to web.xml
5. Add role,username & password in tomcat-users.xml
6. Deploy & Run the application

1. **Create Login.html(for Accessing FirstServlet)**

```html
10  <html>
11  <head>
12  <title>LOGIN PAGE</title>
13  </head>
14  <body>
15      <form action="/WebSecurity/FirstServlet" method="post">
16
17          Enter Text:<input type="text" name="text">
18                  <input   type="submit">
19      </form>
20  </body>
21  </html>
```

2. **Create FirstServet class**

```java
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 FirstServlet extends HttpServlet {

    public void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        PrintWriter out = response.getWriter();

        out.println("<h1>GET:After authentication only we can access the Servlet.</h1>");
    }

    public void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        PrintWriter out = response.getWriter();

        out.println("<h1>POST:After authentication only we can access the Servlet.</h1>");
    }

}
```

3. Configure FirstServlet in web.xml

```
10   <servlet>
11       <description></description>
12       <display-name>FirstServlet</display-name>
13       <servlet-name>FirstServlet</servlet-name>
14       <servlet-class>com.java2learn.servlet.FirstServlet</servlet-class>
15   </servlet>
16   <servlet-mapping>
17       <servlet-name>FirstServlet</servlet-name>
18       <url-pattern>/FirstServlet</url-pattern>
19   </servlet-mapping>
```

4. Add security related tags to web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:web="http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
    xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
    id="WebApp_ID" version="2.5">
    <display-name>WebSecurity</display-name>

<servlet>
    <description></description>
    <display-name>FirstServlet</display-name>
    <servlet-name>FirstServlet</servlet-name>
    <servlet-class>com.java2learn.servlet.FirstServlet</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>FirstServlet</servlet-name>
    <url-pattern>/FirstServlet</url-pattern>
</servlet-mapping>

<security-constraint>
    <web-resource-collection>
        <web-resource-name>FirstServlet</web-resource-name>
        <description></description>
        <url-pattern>/FirstServlet</url-pattern>
        <http-method>POST</http-method>
        <http-method>GET</http-method>
    </web-resource-collection>
```
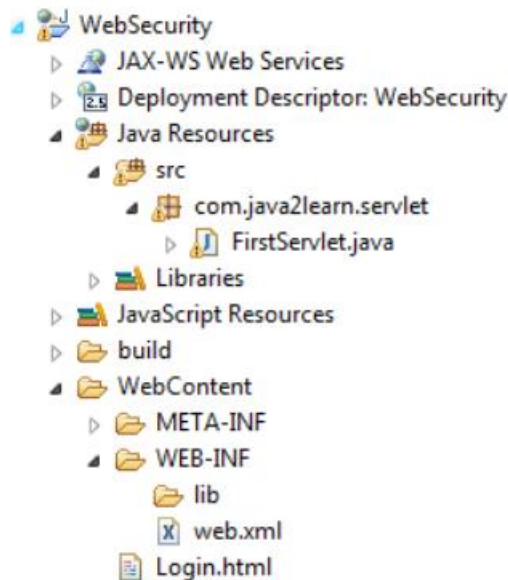
```xml
        <auth-constraint>
            <role-name>javaRole</role-name>
        </auth-constraint>
    </security-constraint>

    <login-config>
        <auth-method>BASIC</auth-method>
    </login-config>

    <security-role>
        <role-name>javaRole</role-name>
    </security-role>

</web-app>
```

5. **Add role,username & password in tomcat-users.xml**

```xml
10    <tomcat-users>
11     <role rolename="javarole"/>
12     <user username="user1" password="tomcat" roles="javarole"/>
13     <user username="user2" password="tomcat" roles="javarole,role1"/>
14    </tomcat-users>
```
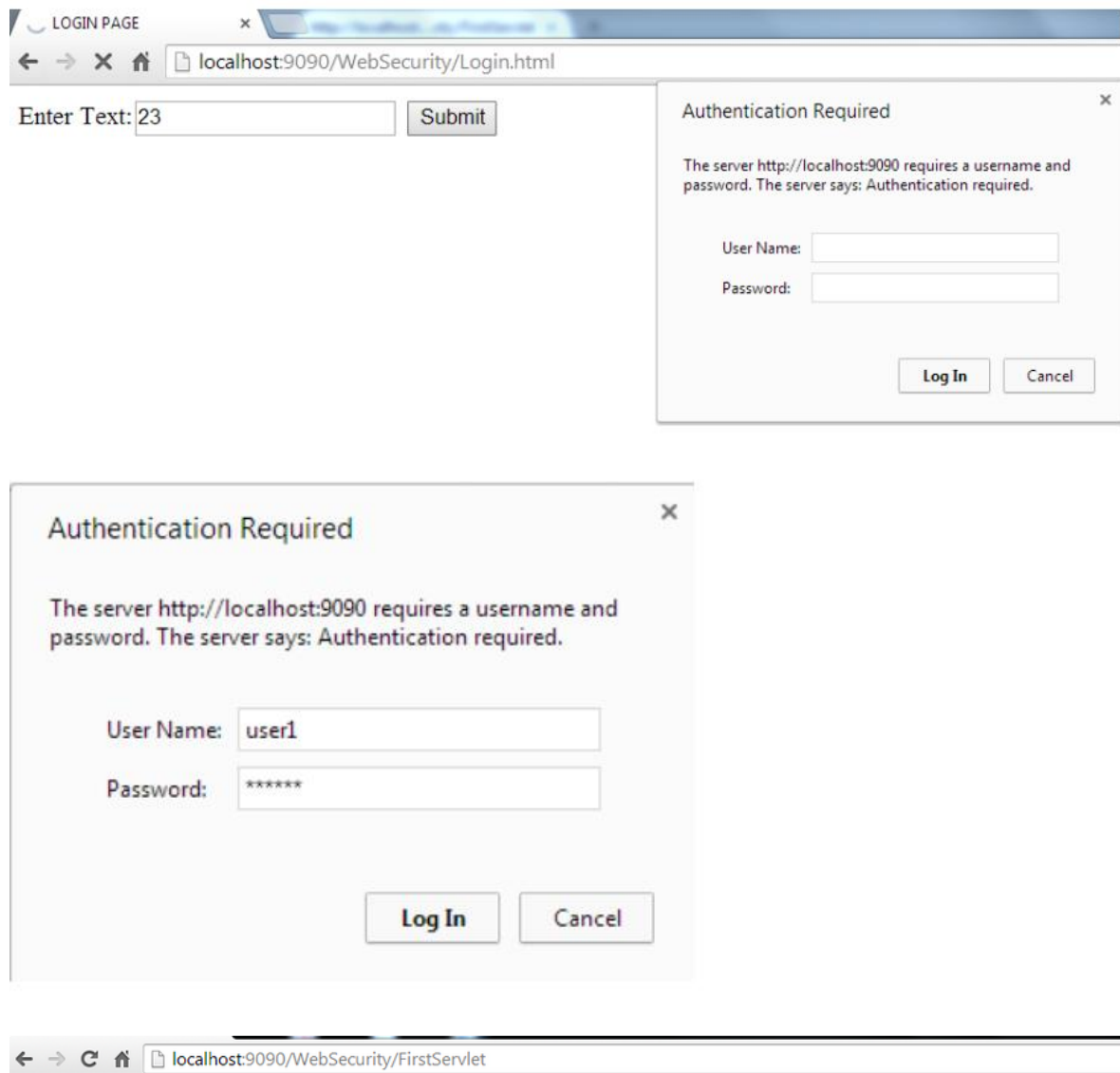
➢   **Final Project Structure**

- WebSecurity
  - JAX-WS Web Services
  - Deployment Descriptor: WebSecurity
  - Java Resources
    - src
      - com.java2learn.servlet
        - FirstServlet.java
    - Libraries
  - JavaScript Resources
  - build
  - WebContent
    - META-INF
    - WEB-INF
      - lib
      - web.xml
    - Login.html

6.   **Deploy & Run the application**

POST:After authentication only we can access the Servlet.