Exp. No : 04 Date : / /2024	Web Application With Maven

AIM :

     To design a Maven-based web application that displays event details and allows user registration using HTML and Servlets.

PROCEDURE :

1. Create a Maven Web Application:

- Generate the Maven web application structure:

  mvn archetype:generate -DgroupId=com.example -DartifactId=my-webapp -DarchetypeArtifactId=maven-   Darchetype-webapp -DinteractiveMode=false

2. *Add HTML Pages*:

- Create index.html for displaying event details and linking to the registration form.
- Create Register.html to implement the registration form.

3. *Develop a Servlet*:

- Implement a servlet class (HelloServlet) to process requests and respond with dynamic content.

4. *Build and Deploy*:
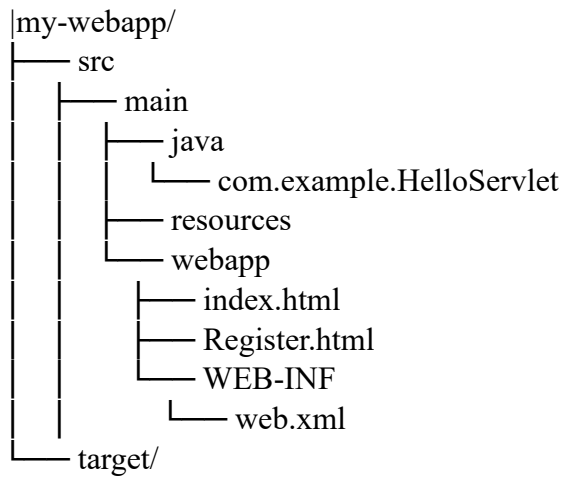
- Build the project using Maven:

   $ mvn clean package

- Deploy the .war file to a servlet container such as Apache Tomcat.

5. Access the Web Application:

- Open a web browser and navigate to:
- Events Page: http://localhost:8080/my-webapp/index.html
- Registration Form: http://localhost:8080/my-webapp/Register.html
- Servlet Response: http://localhost:8080/my-webapp/hello

Directory Structure:

```
|my-webapp/
├── src
│   ├── main
│   │   ├── java
│   │   │   └── com.example.HelloServlet
│   │   ├── resources
│   │   └── webapp
│   │       ├── index.html
│   │       ├── Register.html
│   │       └── WEB-INF
│   │           └── web.xml
└── target/
```

Program:

1. Index.html: Event Details Page

```html
<!DOCTYPE html>
<html>
<head>
    <title>Events</title>
    <link rel="icon" href="images/img1.jpeg">
</head>
<body bgcolor="black" style="color: white;">
    <h1 align="center">Upcoming Events &#x1F4C6</h1>
    <h4 align="center">Don't miss any of your events. Here are the important events you have registered for!</h4>
    <hr>
    <p align="center"><img src="images/img2.jpeg" alt="Event Image"></p>
    <h1 align="center">Photo Gallery Event</h1>
    <h2 align="center">Free Entry | Free Food | Pets are Not Allowed</h2>
    <p align="center"><img src="images/img3.jpeg" alt="Gallery Image"></p>
    <p align="center"><a href="Register.html">Register Now!</a></p>
    <h1 align="center">Contact</h1>
    <h2 align="center">+91 65926526899 | eventcollab@gmail.com</h2>
    <h3 align="center">9th Street Avenue Park, Salem, 636304</h3>
</body>
</html>
```

3. Register.html: Registration Form

```html
<!DOCTYPE html>
<html>
<head>
    <title>Register Form</title>
    <style>
        label {
            color: rgb(16, 23, 16);
            font-family: Cambria, Georgia, serif;
        }
```

```html
    </style>
  </head>
  <body background="images/earth.png">
    <h1 align="center" style="color: blue;">Registration Form</h1>
    <center>
      <fieldset>
        <legend><h2 style="color: rgb(188, 79, 192)">Register</h2></legend>
        <form>
          <table>
            <tr>
              <td><label>NAME:</label></td>
              <td><input type="text" placeholder="Your name" style="background: lightblue;"></td>
            </tr>
            <tr>
              <td><label>PASSWORD:</label></td>
              <td><input type="password" style="background: lightblue;"></td>
            </tr>
            <tr>
              <td><label>DOB:</label></td>
              <td><input type="date" style="background: lightblue;"></td>
            </tr>
            <tr>
              <td><label>ADDRESS:</label></td>
              <td><textarea cols="40" rows="5" style="background: lightblue;"></textarea></td>
            </tr>
            <tr>
              <td><label>GENDER:</label></td>
              <td>
                <input type="radio" name="gender">Male
                <input type="radio" name="gender">Female
              </td>
            </tr>
            <tr>
              <td><label>COURSE:</label></td>
              <td>
                <select style="background: lightblue;">
                  <option value="1">DLD</option>
                  <option value="2">DSA</option>
                  <option value="3">FDS</option>
                </select>
              </td>
            </tr>
            <tr>
              <td><label>FILES:</label></td>
              <td><input type="file" style="background: lightblue;"></td>
            </tr>
            <tr>
              <td colspan="2">
                <button style="background: lightblue;">SUBMIT</button>
                <button style="background: lightblue;">RESET</button>
              </td>
            </tr>
```

```
            </table>
        </form>
    </fieldset>
  </center>
</body>
</html>
```

4. HelloServlet.java: Servlet Class

```java
package com.example;
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet("/hello")
public class HelloServlet extends HttpServlet {
    @Override
    protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException,
IOException {
        resp.setContentType("text/html");
        resp.getWriter().println("<h1>Welcome to the Event Web Application!</h1>");
    }
}
```

5. web.xml: Servlet Mapping

```xml
<web-app 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"
     version="3.1">
  <servlet>
    <servlet-name>HelloServlet</servlet-name>
    <servlet-class>com.example.HelloServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>HelloServlet</servlet-name>
    <url-pattern>/hello</url-pattern>
  </servlet-mapping>
</web-app>
```

Preparation	
Observation	
Output	
Viva	
Record	
Total	

RESULT:

Hence the Web application created using maven servelets has been implemented and the output has been verified successfully.

OUTPUT:

Registration Form

Register

NAME:	Your name
PASSWORD:	
DOB:	dd-mm-yyyy
ADDRESS:	
GENDER:	○ Male ○ Female
COURSE:	DLD ▾
FILES:	Choose File No file chosen

SUBMIT   RESET