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Maven project to Implement Generic Servlets

Prerequisites

* Oracle JDK 22+
* Apache Maven
* Apache Tomcat

Procedure

1. Open Desired Code Editor and Create a Maven project with architecture as maven-archetype-webapp or if doing manually run the below command

mvn archetype:generate -DgroupId=com.klh -DartifactId=genericservlet -DarchetypeArtifactId=maven-archetype-webapp -DinteractiveMode=false

1. Navigate to the project directory

cd genericservlet

1. Make sure your project directory is in the below format, else create folders manually.

genericservlet

├── pom.xml

├── src

│ └── main

│ ├── java

│ │ └── com

│ │ └── dp

│ │ └── servlet

│ ├── resources

│ └── webapp

│ ├── WEB-INF

│ │ └── web.xml

│ └── index.jsp

└── target

| ├── classes

| │ └── com

| │ └── dp

| │ └── servlet

| └── test-classes

|-pom.xml

1. Make the below changes in the pom.xml like below

<project xmlns="http://maven.apache.org/POM/4.0.0"

         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4\_0\_0.xsd">

  <modelVersion>4.0.0</modelVersion>

<groupId>com.klh</groupId>

  <artifactId>servlet</artifactId>

  <packaging>war</packaging>

  <version>1.0-SNAPSHOT</version>

  <name>servlet Maven Webapp</name>

  <url>http://maven.apache.org</url>

  <dependencies>

    <!-- Servlet API -->

    <dependency>

        <groupId>javax.servlet</groupId>

        <artifactId>javax.servlet-api</artifactId>

        <version>4.0.1</version>

        <scope>provided</scope>

    </dependency>

    <!-- JSTL (optional, for JSP support) -->

    <dependency>

        <groupId>javax.servlet</groupId>

        <artifactId>jstl</artifactId>

        <version>1.2</version>

    </dependency>

  </dependencies>

  <build>

    <finalName>servlet</finalName>

    <plugins>

      <!-- Maven Compiler Plugin -->

      <plugin>

        <groupId>org.apache.maven.plugins</groupId>

        <artifactId>maven-compiler-plugin</artifactId>

        <version>3.8.1</version>

        <configuration>

          <source>1.8</source>

          <target>1.8</target>

        </configuration>

      </plugin>

      <!-- Maven War Plugin -->

      <plugin>

        <groupId>org.apache.maven.plugins</groupId>

        <artifactId>maven-war-plugin</artifactId>

        <version>3.2.3</version>

        <configuration>

          <warName>genericservlet </warName>

        </configuration>

      </plugin>

    </plugins>

  </build>

</project>

1. Add MyGenericServlet.java in src\main\java\com\klh\servlet\MyGenericServlet.java

package com.klh.servlet;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.GenericServlet;

import javax.servlet.ServletException;

import javax.servlet.ServletRequest;

import javax.servlet.ServletResponse;

public class MyGenericServlet extends GenericServlet {

    @Override

    public void service(ServletRequest req, ServletResponse res)

            throws ServletException, IOException {

        res.setContentType("text/html");

        PrintWriter out = res.getWriter();

        out.println("<html><body>");

        out.println("<h1>Hello from Generic Servlet</h1>");

        out.println("</body></html>");

    }

}

1. Change the code in src\main\webapp\WEB-INF\web.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>MyGenericServlet</servlet-name>

        <servlet-class>com.klh.servlet.MyGenericServlet</servlet-class>

    </servlet>

    <servlet-mapping>

        <servlet-name>MyGenericServlet</servlet-name>

        <url-pattern>/generic</url-pattern>

    </servlet-mapping>

</web-app>

1. Run the below Command in the Terminal

mvn clean package

1. Run the Servlet on Tomcat Sever
2. Access the Application with the URL

<http://localhost:8080/generic-servlet-demo/generic>

