Deploying Spring Boot WAR file with JSP to Tomcat

**Deploy Spring Boot apps with JSP to Tomcat**

You can deploy a Spring Boot application using JSP to Tomcat. In this scenario, we will create a WAR file and deploy the WAR to the Tomcat server running externally. This is known as a traditional deployment.

**High-level steps**

1. Update main Spring Boot application

2. Update Maven POM file

3. Update application.properties

4. Move JSP view files to WEB-INF/view

5. Create WAR file

6. Deploy to Tomcat

**Spring Boot Reference Manual**

For full details on this process, see the [Spring Boot Reference Manual: Section 92.1 Creating a Deployable WAR file](https://docs.spring.io/spring-boot/docs/current/reference/htmlsingle/#howto-create-a-deployable-war-file)

**Working Example**

I have a full working project. You can download this app and perform test deployments to Tomcat

Download: [deploy-spring-boot-and-jsp-on-tomcat.zip](https://drive.google.com/open?id=1jgjQ1DCpowDJxlFje-dS6rjoQKRcYtCe)

This app is a very simple helloworld example that exposes a "/test" request mapping

1. package org.demo.bootjsp.controller;
3. import org.springframework.stereotype.Controller;
4. import org.springframework.web.bind.annotation.RequestMapping;
6. @Controller
7. public class HelloWorldController {
9. @RequestMapping("/test")
10. public String sayHello() {
11. return "hello";
12. }
14. }

and a simple JSP page: hello.jsp

1. <html><body>
3. <p>
4. Hello World! Time is <%= new java.util.Date() %>
5. </p>
7. <p>
8. We are running on <%= application.getServerInfo() %>!!!
9. </p>
11. </body></html>

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**Detailed steps**

**1. Update main Spring Boot application**

In your main Spring Boot application, you need to

a. extend the SpringBootServletInitializer

b. override the configure(...) method

Your code should look like this

1. package org.demo.bootjsp;
3. import org.springframework.boot.SpringApplication;
4. import org.springframework.boot.autoconfigure.SpringBootApplication;
5. import org.springframework.boot.builder.SpringApplicationBuilder;
6. import org.springframework.boot.web.servlet.support.SpringBootServletInitializer;
8. @SpringBootApplication
9. public class DemowebApplication extends SpringBootServletInitializer {
11. @Override
12. protected SpringApplicationBuilder configure(SpringApplicationBuilder application) {
13. return application.sources(DemowebApplication.class);
14. }
16. public static void main(String[] args) {
17. SpringApplication.run(DemowebApplication.class, args);
18. }
20. }

**2. Update Maven POM file**

Update your POM.xml to use WAR packaging

<packaging>war</packaging>

In POM.xml, add dependency to be able to compile JSPs

1. <dependency>
2. <groupId>org.apache.tomcat.embed</groupId>
3. <artifactId>tomcat-embed-jasper</artifactId>
4. </dependency>

Make sure the Tomcat embedded does not interfere with external Tomcat server

1. <dependency>
2. <groupId>org.springframework.boot</groupId>
3. <artifactId>spring-boot-starter-tomcat</artifactId>
4. <scope>provided</scope>
5. </dependency>

**3. Update application.properties**

In your application.properties file, you should have

1. spring.mvc.view.prefix=/WEB-INF/view/
2. spring.mvc.view.suffix=.jsp

**4. Move JSP view files to WEB-INF/view**

Move your JSP view pages should to src/main/webapp/WEB-INF/view

**5. Create WAR file**

Create the WAR file with the command: mvn clean package

This will generate a WAR file in your project directory:  **target/bootjspdemo.war**

6. In Eclipse, stop all servers you may have running

7. Outside of Eclipse, run your Tomcat server

8. Copy your WAR file to the **<<tomcat-install-dir>>/webapps** directory

Wait for about 15-30 seconds for Tomcat to deploy your app. You will know your app is deployed when you see a new folder created based on your WAR file name. In our example, you will see a new directory named: **bootjspdemo**

9. In a web browser, access your app at: http://localhost:8080/bootjspdemo/test

*Replace <<bootjspdemo>> with the name of your WAR file if you are using a different app*

If everything is successful, you will see your application's web page.

Congratulations! You deployed a Spring Boot WAR file with JSP on to a Tomcat server :-)