**How To Create Spring Boot Application**

**1. Create the Project Directory**

**First, create the directory for your project and navigate into it:**

**powershell**

**Copy code**

**mkdir my-spring-boot-app**

**cd my-spring-boot-app**

**2. Create the pom.xml File**

**Create a pom.xml file in your project directory with the following contents:**

**xml**

**Copy code**

**<?xml version="1.0" encoding="UTF-8"?>**

**<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/xsd/maven-4.0.0.xsd">**

**<modelVersion>4.0.0</modelVersion>**

**<groupId>com.example</groupId>**

**<artifactId>my-spring-boot-app</artifactId>**

**<version>0.0.1-SNAPSHOT</version>**

**<packaging>jar</packaging>**

**<name>My Spring Boot App</name>**

**<description>Spring Boot Application</description>**

**<parent>**

**<groupId>org.springframework.boot</groupId>**

**<artifactId>spring-boot-starter-parent</artifactId>**

**<version>3.3.5</version>**

**</parent>**

**<dependencies>**

**<!-- Spring Boot Starter Web (for building web applications) -->**

**<dependency>**

**<groupId>org.springframework.boot</groupId>**

**<artifactId>spring-boot-starter-web</artifactId>**

**</dependency>**

**<!-- Spring Boot Starter Test (for unit testing) -->**

**<dependency>**

**<groupId>org.springframework.boot</groupId>**

**<artifactId>spring-boot-starter-test</artifactId>**

**<scope>test</scope>**

**</dependency>**

**</dependencies>**

**<build>**

**<plugins>**

**<!-- Spring Boot Maven Plugin -->**

**<plugin>**

**<groupId>org.springframework.boot</groupId>**

**<artifactId>spring-boot-maven-plugin</artifactId>**

**</plugin>**

**</plugins>**

**</build>**

**</project>**

**3. Create the Main Application Class**

**Create the src/main/java/com/example/myspringbootapp/MySpringBootAppApplication.java file with the following contents:**

**java**

**Copy code**

**package com.example.myspringbootapp;**

**import org.springframework.boot.SpringApplication;**

**import org.springframework.boot.autoconfigure.SpringBootApplication;**

**@SpringBootApplication**

**public class MySpringBootAppApplication {**

**public static void main(String[] args) {**

**SpringApplication.run(MySpringBootAppApplication.class, args);**

**}**

**}**

**4. Create the Application Properties File**

**Create the src/main/resources/application.properties file with the following content (to set up basic configurations):**

**properties**

**Copy code**

**server.port=8080**

**spring.application.name=My Spring Boot App**

**5. Build and Run the Application**

**Once the structure is in place, run the following Maven command to build and run the Spring Boot application:**

**powershell**

**Copy code**

**mvn clean spring-boot:run**

**This should start the Spring Boot application. By default, it will run on http://localhost:8080/.**

**6. Access the Application**

**After running the command, open a web browser and go to:**

**arduino**

**Copy code**

**http://localhost:8080/**

**You should see your Spring Boot app running.**

**The "Whitelabel Error Page" with a 404 Not Found status means that your Spring Boot application is up and running, but it doesn't have a specific mapping for the root URL (/) or any other endpoint.**

**This typically happens when you haven't defined any controller to handle incoming requests. Let's fix this by adding a simple controller to handle requests.**

**Steps to Fix the 404 Error**

**1. Create a Controller Class**

**Inside your src/main/java/com/example/myspringbootapp/ directory, create a new Java file called HomeController.java and add the following code:**

**java**

**Copy code**

**package com.example.myspringbootapp;**

**import org.springframework.web.bind.annotation.GetMapping;**

**import org.springframework.web.bind.annotation.RestController;**

**@RestController**

**public class HomeController {**

**@GetMapping("/")**

**public String home() {**

**return "Hello, Welcome to my Spring Boot app!";**

**}**

**}**

**This class defines a simple Spring MVC controller with a @GetMapping for the root URL (/). When you visit http://localhost:8080/, it will return the string "Hello, Welcome to my Spring Boot app!".**

**2. Rebuild and Restart the Application**

**Once the controller is added, rebuild and run your application again using the following command:**

**powershell**

**Copy code**

**mvn clean spring-boot:run**

**3. Access the Application Again**

**Now, try accessing your app again at:**

**arduino**

**Copy code**

**http://localhost:8080/**

**You should see the message "Hello, Welcome to my Spring Boot app!".**