First Spring Boot App

Creating our first Spring Boot project using Spring Initializr is straightforward and efficient. Here are the detailed steps to set it up without any additional dependencies, along with the default Spring Starter dependencies included in the pom.xml.

Step 1: Access Spring Initializr

1. Open your web browser and navigate to Spring Initializr.

Step 2: Configure Project Metadata

2. Fill in the project metadata:
   - **Project**: Select **Maven Project**.
   - **Language**: Select **Java**.
   - **Spring Boot**: Choose the latest stable version (e.g., 3.0.0).
   - **Group**: Enter your group name (e.g., com.telusko).
   - **Artifact**: Enter your artifact name (e.g., SpringBootFirstApplication).
   - **Name**: Enter your project name (e.g., Spring Boot First Application).
   - **Package Name**: Usually auto-filled based on your group and artifact names.
   - **Packaging**: Choose **Jar**.
   - **Java**: Select your Java version (e.g., 21 or 17).

Step 3: Add Dependencies

3. Since you want to create a project with no dependencies, simply skip the dependency selection. If you wanted to add dependencies later, you would do so here.

Step 4: Generate the Project

4. Click on the **Generate** button. This will download a ZIP file containing your new Spring Boot project.

Step 5: Extract and Open the Project

5. Extract the downloaded ZIP file.
6. Open the project in your preferred IDE (e.g., IntelliJ IDEA, Eclipse, or Visual Studio Code).

Step 6: Review the pom.xml

7. Open the pom.xml file in the root directory of your project. Here's what the default Spring Starter dependencies would look like:

```
<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.telusko</groupId>
    <artifactId>SpringBootFirstApplication</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>Spring Boot First Application</name>
    <description>Demo project for Spring Boot</description>
    <properties>
        <java.version>17</java.version> <!-- Ensure the Java version matches your
installation -->
    </properties>

    <dependencies>
        <!-- Spring Boot Starter Web dependency -->
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter</artifactId>
        </dependency>
        <!-- Spring Boot Starter Test for testing -->
        <dependency>
```

```
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-test</artifactId>
            <scope>test</scope>
        </dependency>
    </dependencies>

    <build>
        <plugins>
            <plugin>
                <groupId>org.springframework.boot</groupId>
                <artifactId>spring-boot-maven-plugin</artifactId>
            </plugin>
        </plugins>
    </build>
</project>
```

Step 7: Create the Main Application Class

8. Inside the src/main/java/com/telusko/app directory, create a new Java class named SpringBootFirstApplication.java. Here’s the code:

```
package com.telusko.app;

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

@SpringBootApplication
public class SpringBootFirstApplication {

    public static void main(String[] args) {
        SpringApplication.run(SpringBootFirstApplication.class, args);
    }
}
```

Step 8: Run the Application

9. To run the application, you can use the command line or your IDE:

Command Line: Navigate to the project directory and run:

```
./mvnw spring-boot:run
```

IDE: Right-click on the SpringBootFirstApplication class and select Run.

Step 9: Verify the Application

10. Open your web browser and go to (default **port)** http://localhost:8080/. You should see a default error page since there are no endpoints defined yet, but it confirms that your application is running successfully.

Summary

You have now created your first Spring Boot application using Spring Initializr. The default pom.xml file includes essential dependencies such as spring-boot-starter and spring-boot-starter-test. This setup provides a solid foundation for building and running Spring Boot applications effortlessly.