IDE for Spring

To set up a Spring development environment, you need the **JDK** and a suitable **IDE** with Spring support. Below are instructions for using **VS Code**, **IntelliJ**, **Spring Tool Suite (STS)**, and **Eclipse**.

1. JDK Installation

Before working with Spring, make sure you have **JDK** (**Java Development Kit**) installed. You can download it from **Oracle**.

2. IDE Options for Spring Development

- VS Code
- IntelliJ IDEA (Community Edition Free)
- Spring Tool Suite (STS) (Based on Eclipse)
- Eclipse IDE

Steps to Set Up Spring in Different IDEs

- a) Visual Studio Code (VS Code)
 - 1. **Install VS Code** from here.
 - 2. Install Java Extension Pack:
 - Go to the **Extensions** marketplace.
 - Search for Java Extension Pack and click Install. This will install support for Java, including Maven, Debugger, and Spring Boot.
 - 3. Install Spring Boot Extension:
 - Search for **Spring Boot Extension Pack** and install it.
 - 4. Start Spring Boot Project:
 - Press Ctrl + Shift + P and select Spring Initializr: Generate a
 Maven Project.
 - Configure your project (dependencies, packaging, Java version, etc.).

b) IntelliJ IDEA (Community Edition - Free)

- 1. **Install IntelliJ IDEA** from here.
- 2. Enable Spring Support:
 - \circ Go to File > New > Project.
 - Choose **Spring Initializr** to create a Spring Boot project.
- 3. Install Spring Plugin (if not installed by default):
 - Go to File > Settings > Plugins.
 - Search for **Spring Boot** and install the plugin.
- 4. Generate a Spring Project:
 - After installing the plugin, create a Spring Boot project using Spring Initializr.

c) Spring Tool Suite (STS)

- 1. **Install STS** from here.
 - STS is based on Eclipse and comes with built-in Spring support.
- 2. Create a New Spring Project:
 - Open STS and go to File > New > Spring Starter Project.
 - Follow the wizard to create a Spring Boot project using **Spring Initializr**.
- 3. Install Additional Plugins:
 - You can install any required plugins via Eclipse Marketplace in STS for more capabilities (e.g., for testing or ORM integration).

d) Eclipse IDE

- 1. **Install Eclipse IDE** from <u>here</u>.
- 2. Add Spring Support:
 - Open **Eclipse Marketplace** (Help > Eclipse Marketplace).
 - Search for **Spring Tools (STS)** and click **Install**.
- 3. Create a Spring Project:
 - Go to **File > New > Spring Starter Project**.
 - Follow the wizard to set up the project.

Steps to Use Spring Project in Any IDE

- 1. Start a Spring Project using Spring Initializr.
 - Choose dependencies like Spring Web, Spring Data JPA, Thymeleaf, etc.

2. Import Project:

- For Eclipse/STS, use **File > Import > Existing Maven Project**.
- o In IntelliJ, simply open the project as a Maven/Gradle project.

3. Run the Project:

- For Eclipse/STS, right-click on the project and select Run As > Spring Boot App.
- o In IntelliJ, click on the **Run** button in the top-right corner.