Search...

How to Create a Spring Boot Project?

Last Updated : 19 Aug, 2025

Spring Boot is a framework that simplifies Java application development by eliminating complex XML configurations and providing built-in support for common tasks. One of the first steps to working with Spring Boot is creating a project. This article will guide you through different ways to set up a Spring Boot project.

Create a Spring Boot Project in Eclipse IDE

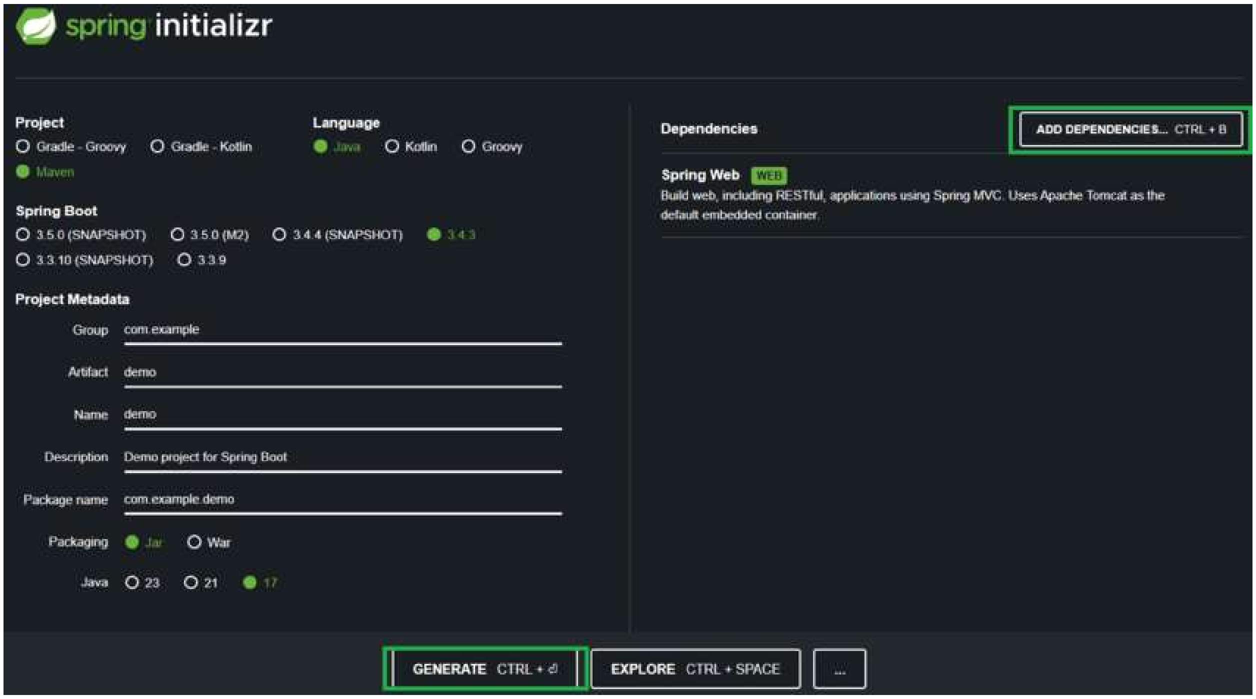
Eclipse is a widely used IDE for Java development. The steps to create a Spring Boot project in Eclipse are listed below:

> ***Prerequisite:*** *Install the Eclipse IDE*

Step-by-Step Implementation

Step 1: Create a Spring Boot Project in Spring Initializr

- Visit Spring Initializr.
- Fill in project details (Group, Artifact, Dependencies, Java version, etc.).
- Click Generate to download the project as a .zip.
- Extract the folder on your system.



Project
○ Gradle - Groovy ○ Gradle - Kotlin
● Maven

Language
● Java ○ Kotlin ○ Groovy

Spring Boot
○ 3.5.0 (SNAPSHOT) ○ 3.5.0 (M2) ○ 3.4.4 (SNAPSHOT) ● 3.4.3
○ 3.3.10 (SNAPSHOT) ○ 3.3.9

Project Metadata

Group	com.example
Artifact	demo
Name	demo
Description	Demo project for Spring Boot
Package name	com.example.demo
Packaging	● Jar ○ War
Java	○ 23 ○ 21 ● 17

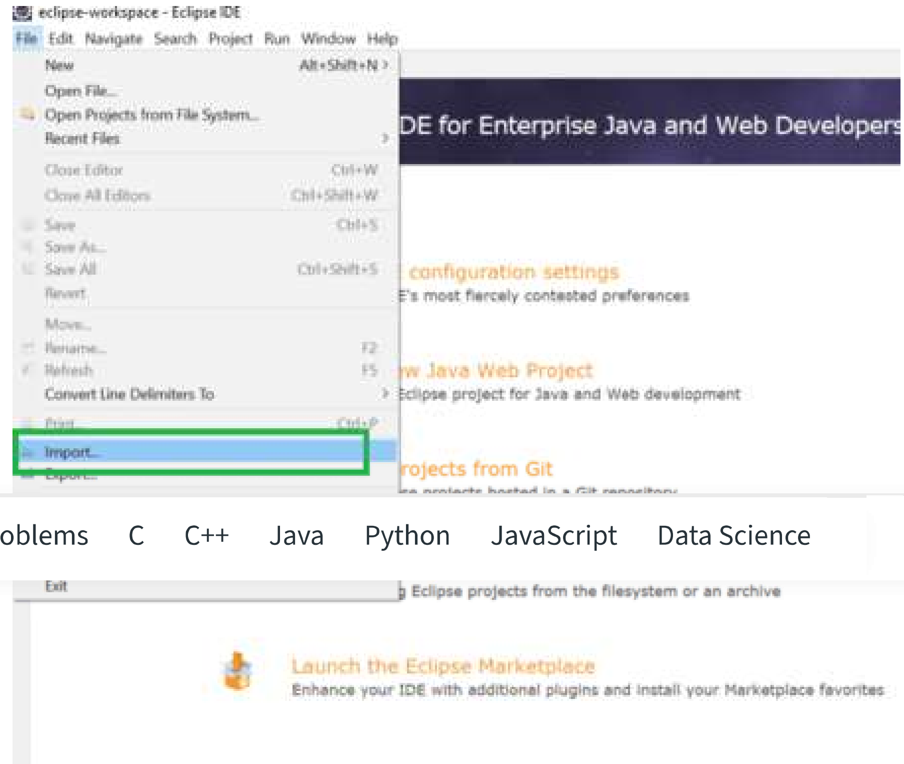
Dependencies

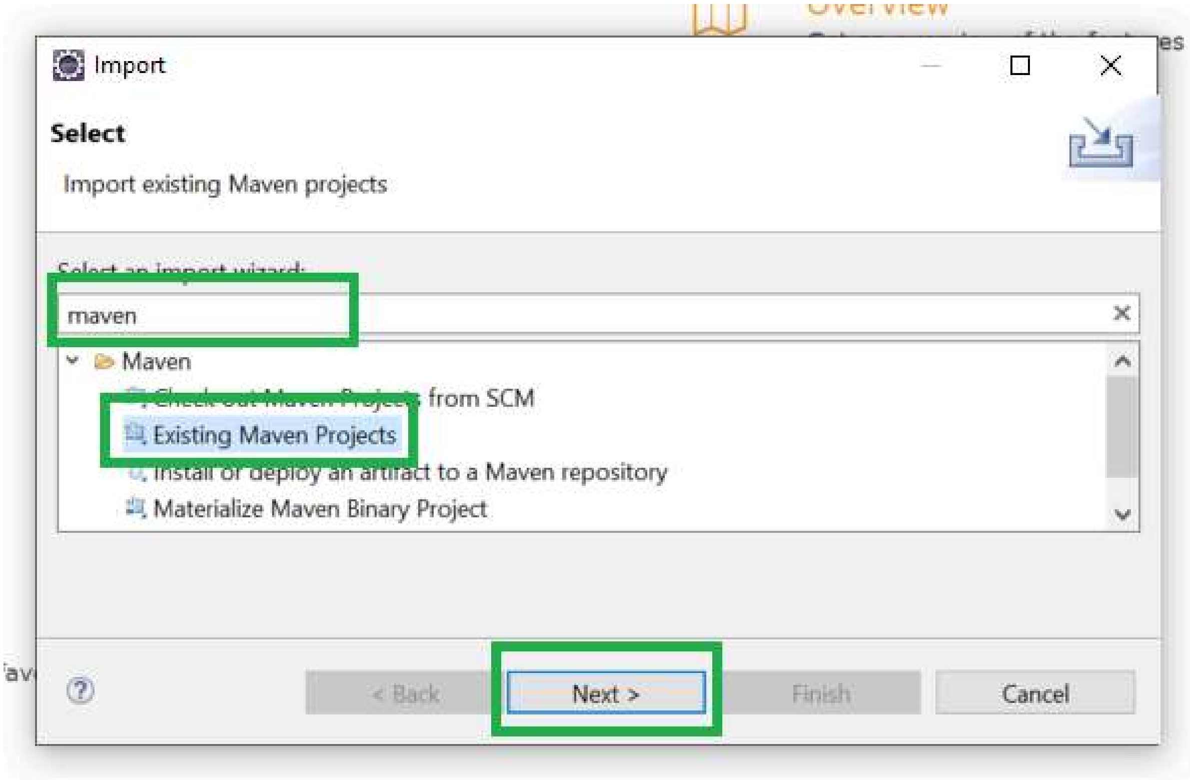
Spring Web WEB
Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

Spring Initializr

Step 2: Import Spring Boot Project in Eclipse IDE

- Open Eclipse IDE ->File->Import
- Search Maven->Select Existing Maven Project->Click Next
- Browse and select the extracted project folder
- Click Finish


eclipse-workspace - Eclipse IDE
File Edit Navigate Search Project Run Window Help
New Alt+Shift+N
Open File...
Open Projects from File System...
Recent Files
Close Editor Ctrl+W
Close All Editors Ctrl+Shift+W
Save Ctrl+S
Save As...
Save All Ctrl+Shift+S
Revert
Move...
Rename... F2
Refresh F5
Convert Line Delimiters To
Print... Ctrl+P
Import...
Export...
Exit
IDE for Enterprise Java and Web Developers
configuration settings
E's most fiercely contested preferences
w Java Web Project
Eclipse project for Java and Web development
rojects from Git
g Eclipse projects from the filesystem or an archive
Launch the Eclipse Marketplace
Enhance your IDE with additional plugins and install your Marketplace favorites



Import

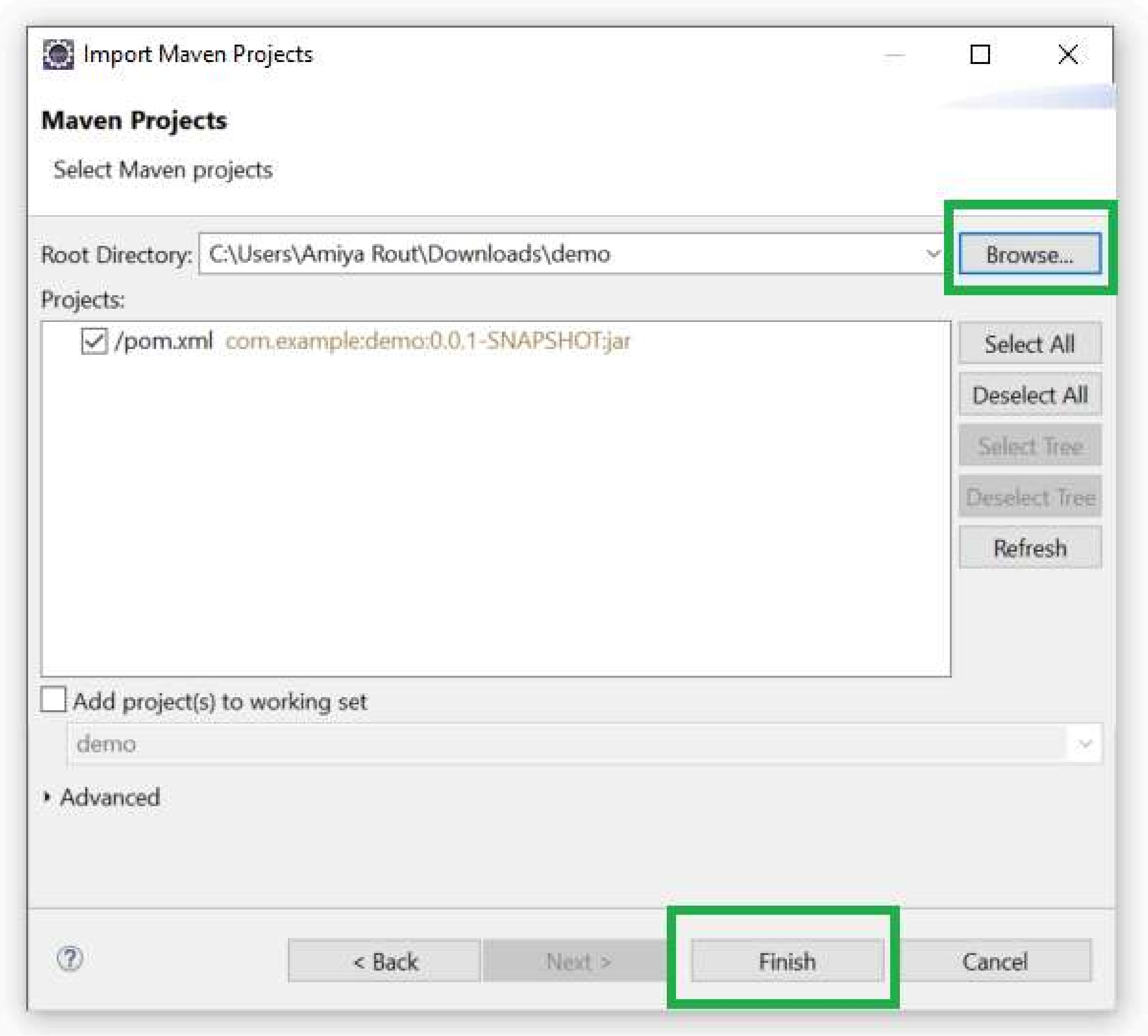
Select

Import existing Maven projects

Select an import wizard:

maven

- Maven
  - Check out Maven Projects from SCM
  - Existing Maven Projects
  - Install or deploy an artifact to a Maven repository
  - Materialize Maven Binary Project



Import Maven Projects

Maven Projects

Select Maven projects

Root Directory: C:\Users\Amiya Rout\Downloads\demo

Projects:

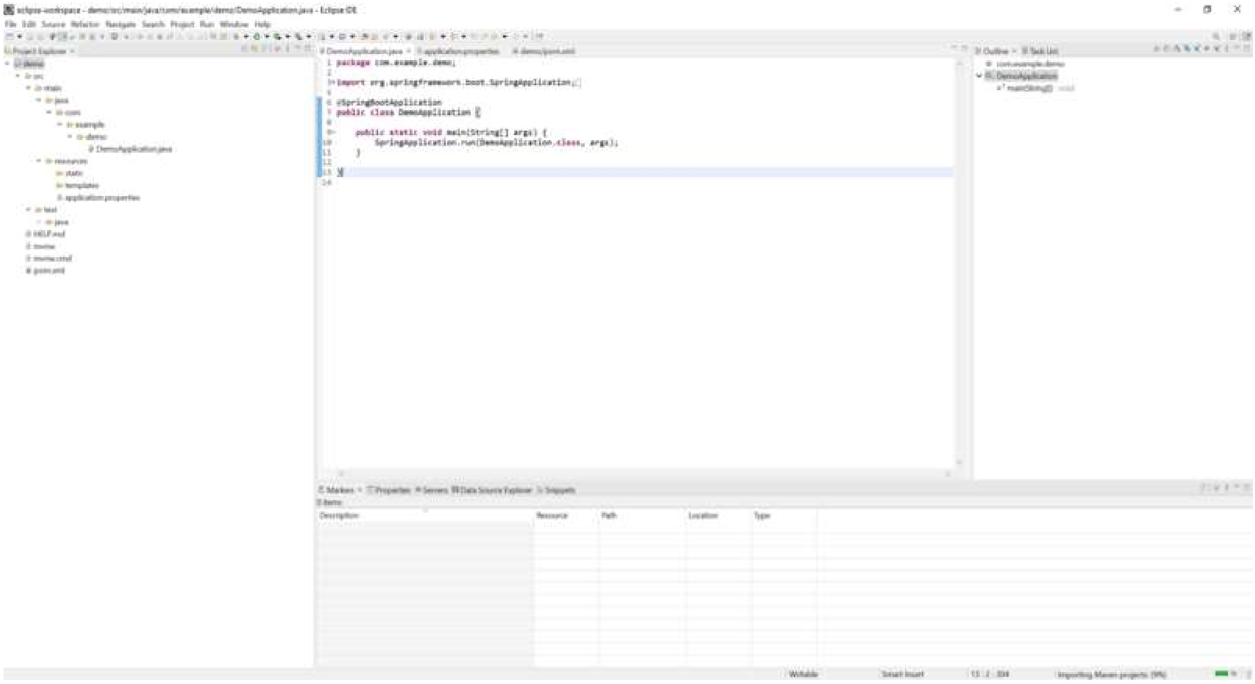
☑ /pom.xml com.example:demo:0.0.1-SNAPSHOT:jar

□ Add project(s) to working set

demo

Advanced

> ***Note:*** *By now, Spring Boot project has been created as depicted in the below media*



```java
package com.example.demo;

import org.springframework.boot.SpringApplication;

@SpringBootApplication
public class DemoApplication {

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

}
```

code-editor

Create a Spring Boot Project in STS IDE

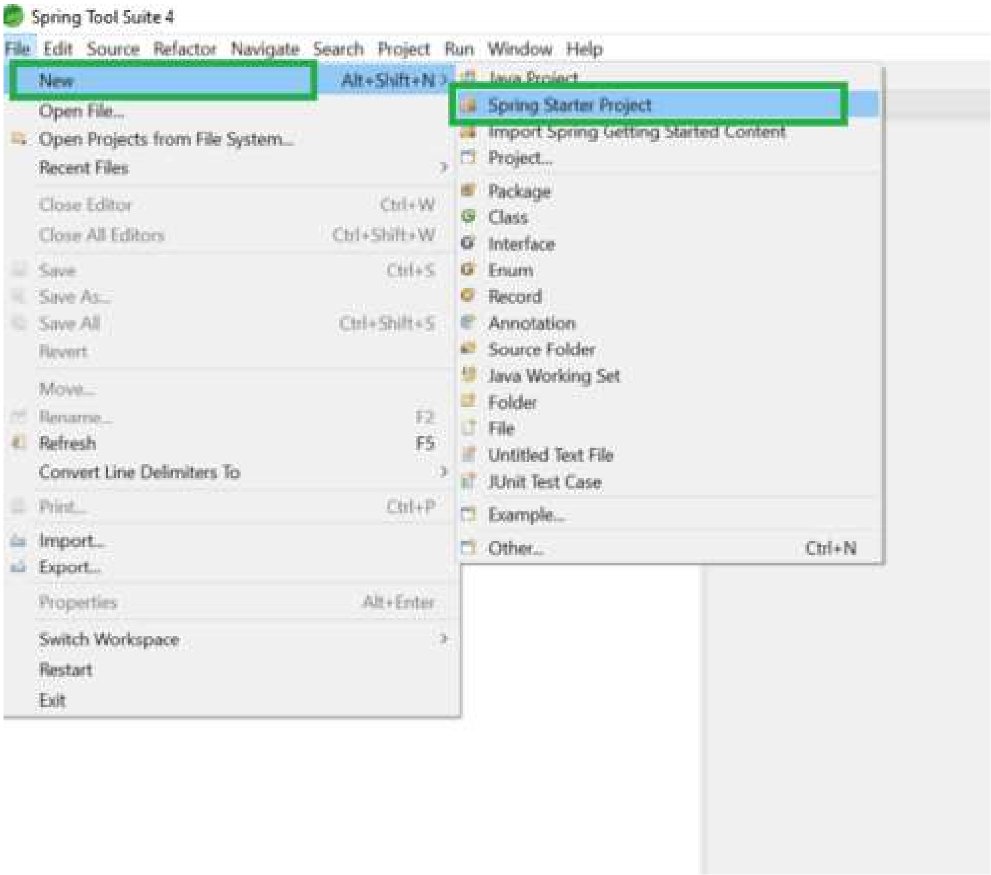
Spring Tool Suite (STS) is a specialized Eclipse-based IDE designed for Spring applications. It comes with built-in support for Spring Boot, making the setup process faster and easier.

> ***Prerequisite:*** *Download and install STS*

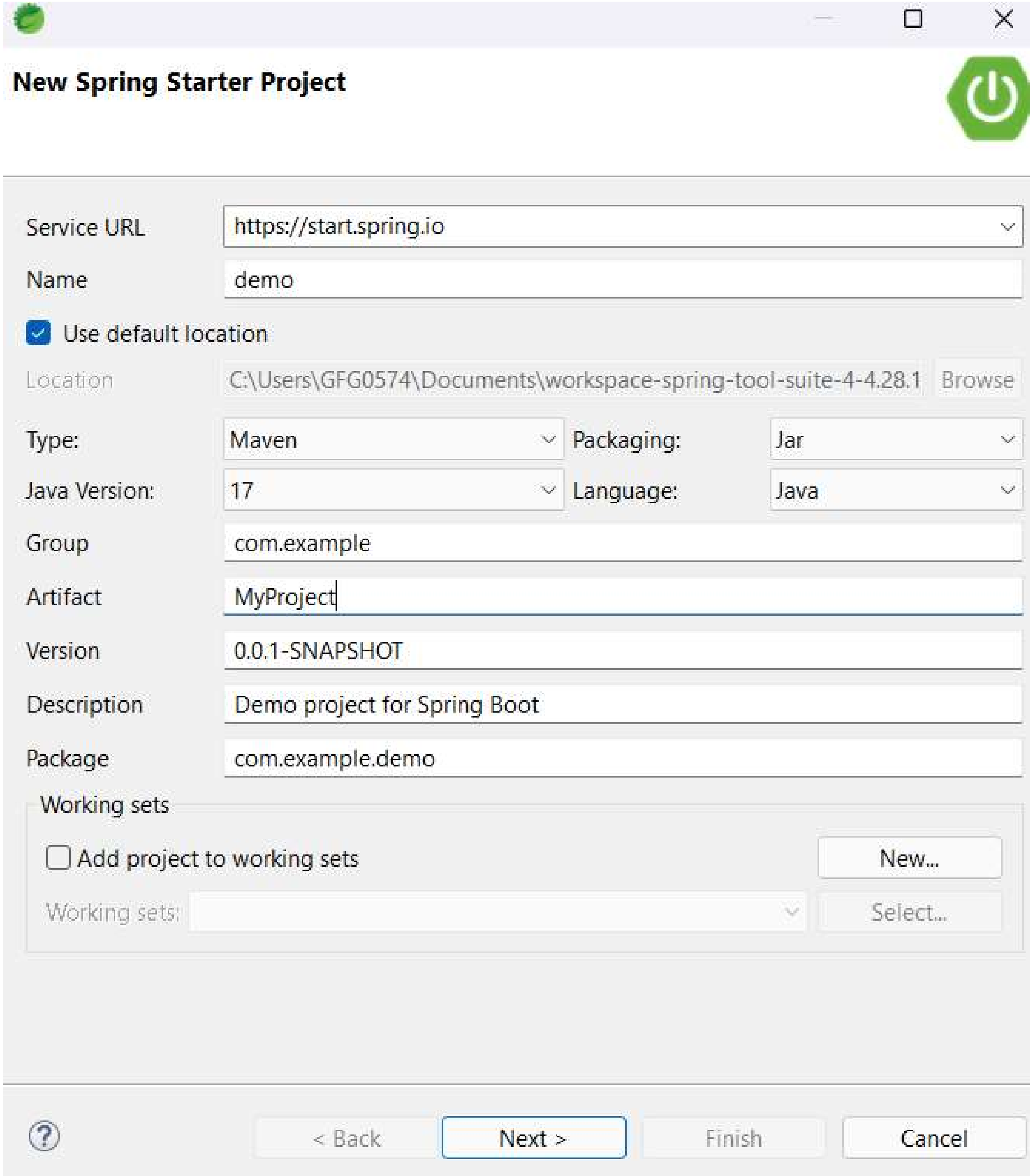
Step-by-Step Implementation

Step 1: Create a New Spring Starter Project.

- Go to File -> New -> Spring Starter Project
- Enter project details (Name, Group, Artifact, Java version, Packaging, etc.)
- Click Next


Spring Tool Suite 4
File Edit Source Refactor Navigate Search Project Run Window Help
New Alt+Shift+N
Open File...
Open Projects from File System...
Recent Files
Close Editor Ctrl+W
Close All Editors Ctrl+Shift+W
Save Ctrl+S
Save As...
Save All Ctrl+Shift+S
Revert
Move...
Rename... F2
Refresh F5
Convert Line Delimiters To
Print... Ctrl+P
Import...
Export...
Properties Alt+Enter
Switch Workspace
Restart
Exit
Java Project
Spring Starter Project
Import Spring Getting Started Content
Project...
Package
Class
Interface
Enum
Record
Annotation
Source Folder
Java Working Set
Folder
File
Untitled Text File
JUnit Test Case
Example...
Other... Ctrl+N

STS



New Spring Starter Project

Service URL: https://start.spring.io

Name: demo

☑ Use default location

Location: C:\Users\GFG0574\Documents\workspace-spring-tool-suite-4-4.28.1

Type: Maven

Packaging: Jar

Java Version: 17

Language: Java

Group: com.example

Artifact: MyProject

Version: 0.0.1-SNAPSHOT

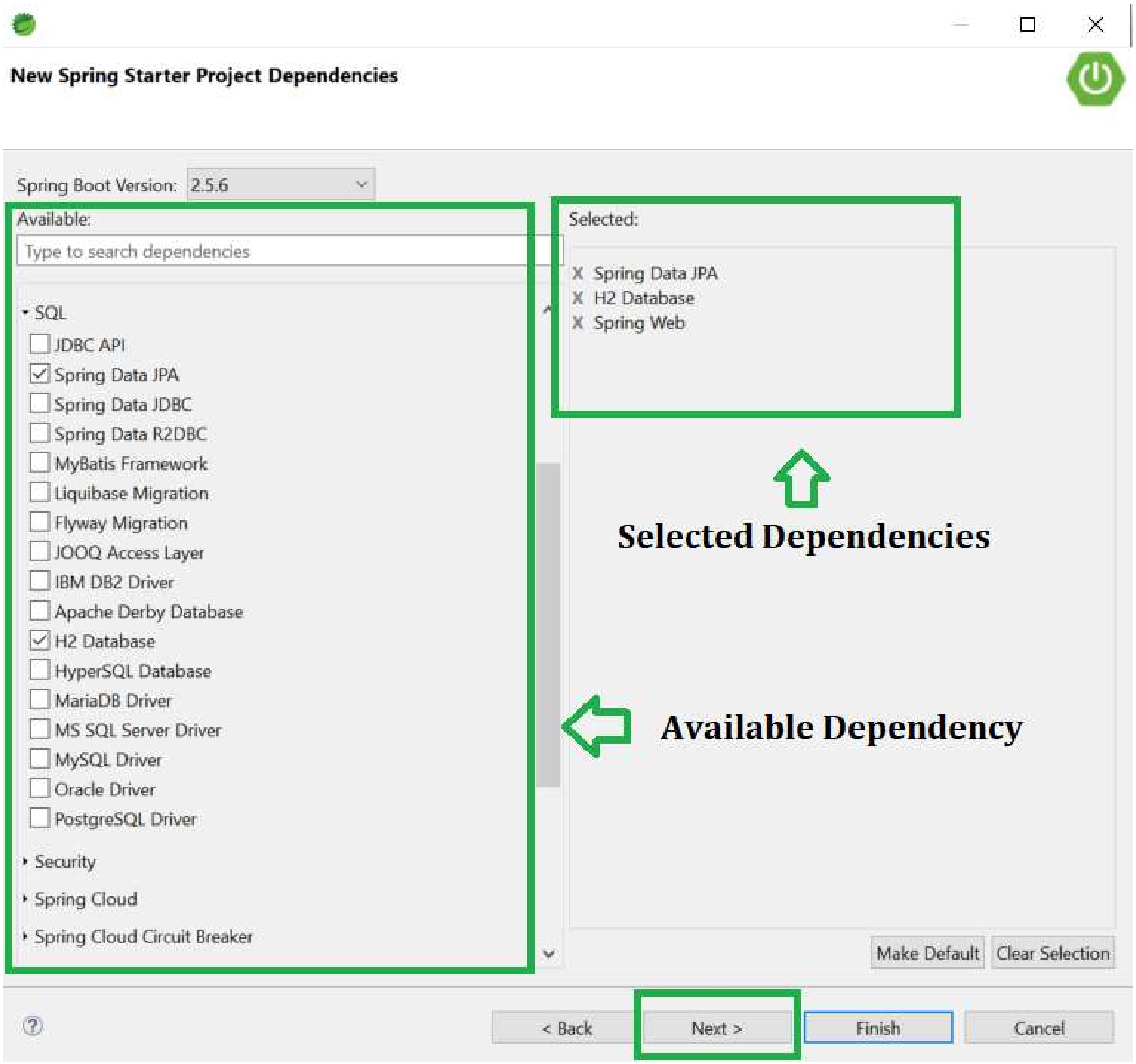
Description: Demo project for Spring Boot

Package: com.example.demo

Working sets

☐ Add project to working sets

Spring Initializr



New Spring Starter Project Dependencies

Spring Boot Version: 2.5.6

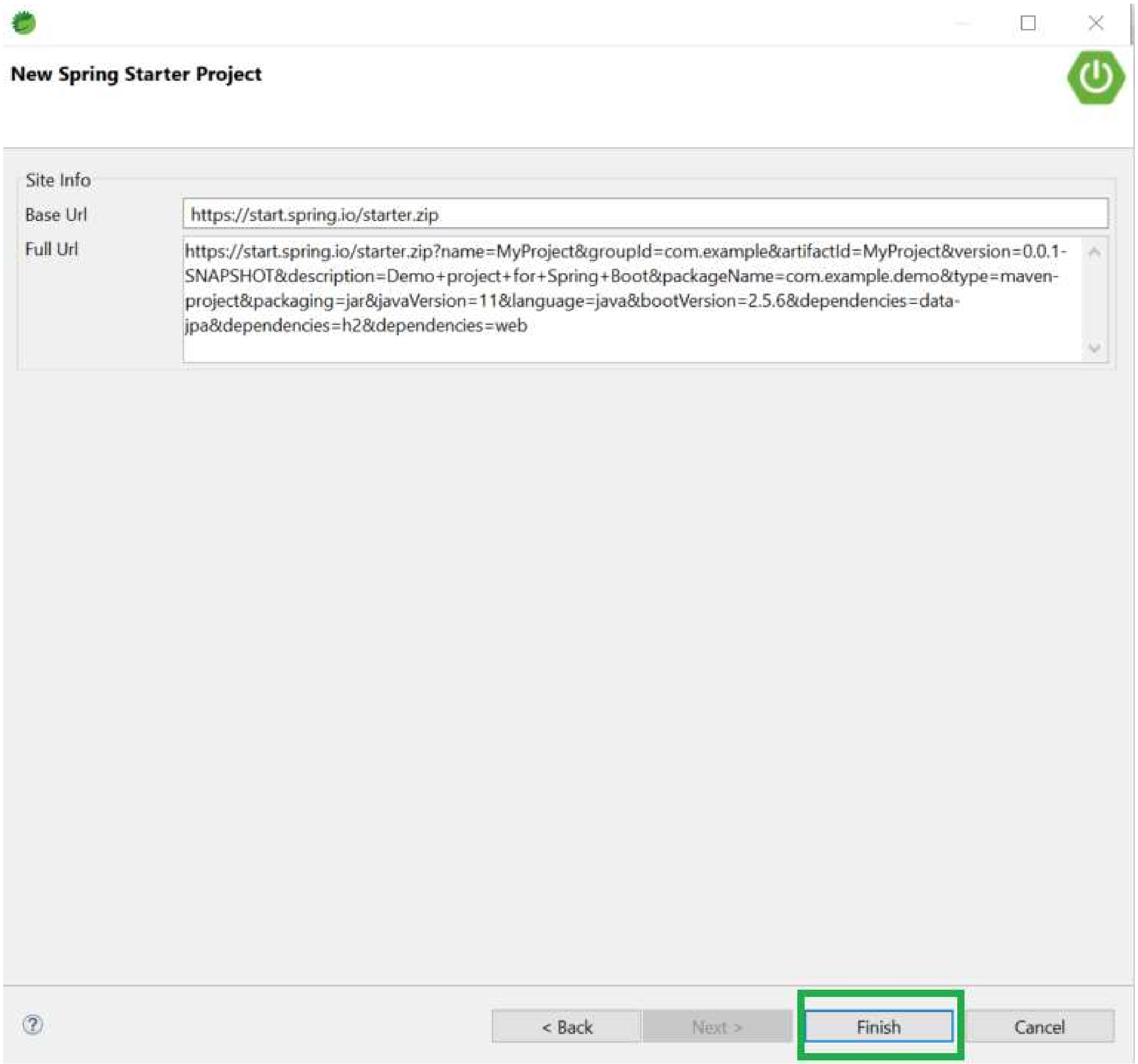
Available:

Type to search dependencies

- SQL
  - □ JDBC API
  - ☑ Spring Data JPA
  - □ Spring Data JDBC
  - □ Spring Data R2DBC
  - □ MyBatis Framework
  - □ Liquibase Migration
  - □ Flyway Migration
  - □ JOOQ Access Layer
  - □ IBM DB2 Driver
  - □ Apache Derby Database
  - ☑ H2 Database
  - □ HyperSQL Database
  - □ MariaDB Driver
  - □ MS SQL Server Driver
  - □ MySQL Driver
  - □ Oracle Driver
  - □ PostgreSQL Driver
- Security
- Spring Cloud
- Spring Cloud Circuit Breaker

Selected:

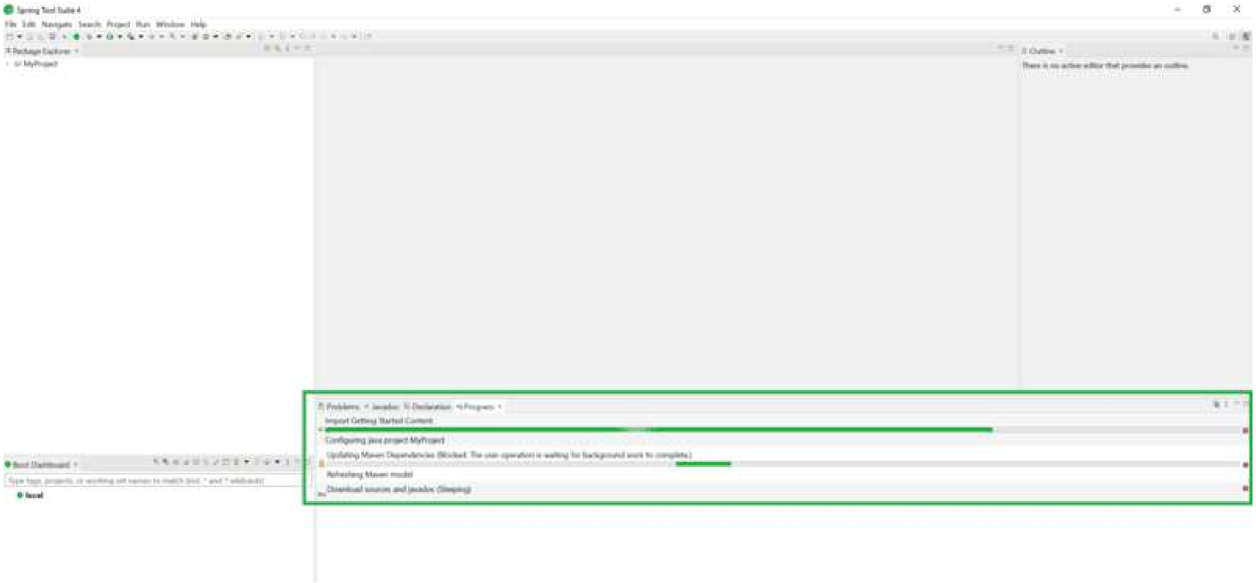
X Spring Data JPA
X H2 Database
X Spring Web



Base Url: https://start.spring.io/starter.zip

Full Url: https://start.spring.io/starter.zip?name=MyProject&groupId=com.example&artifactId=MyProject&version=0.0.1-SNAPSHOT&description=Demo+project+for+Spring+Boot&packageName=com.example.demo&type=maven-project&packaging=jar&javaVersion=11&language=java&bootVersion=2.5.6&dependencies=data-jpa&dependencies=h2&dependencies=web

Here now, please wait for some time to download all the required files such as dependencies that you have selected in Step4 above.

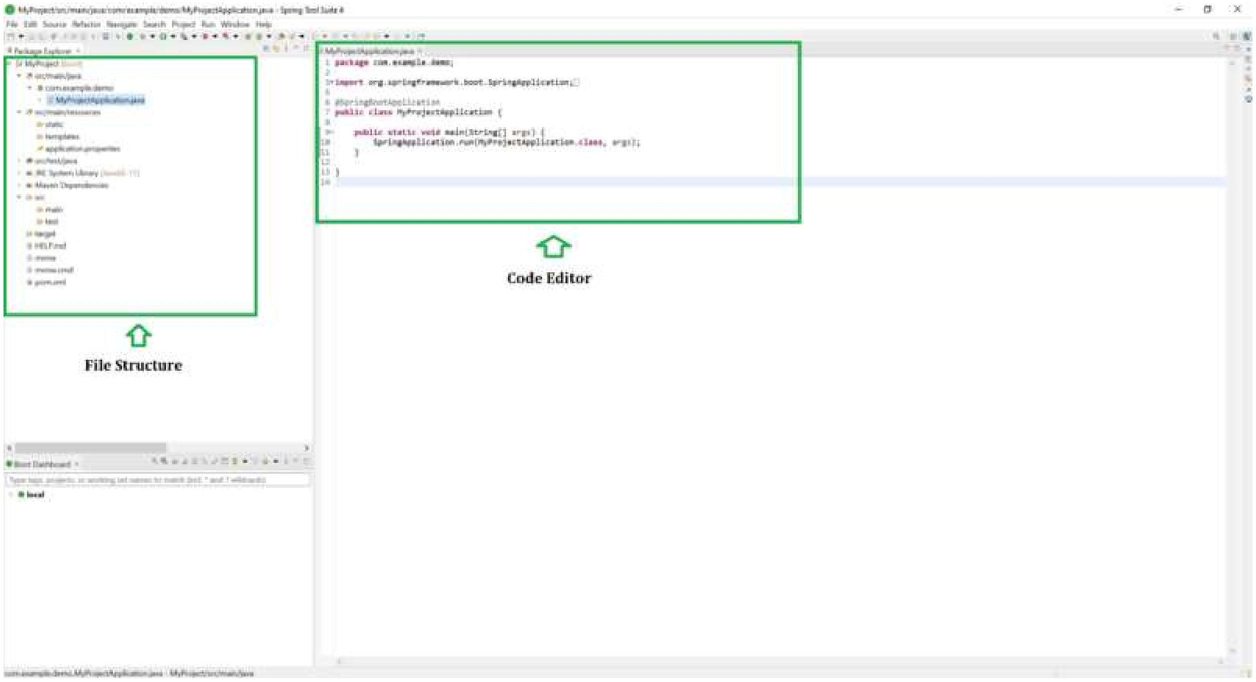


There is no active editor that provides an outline.

Type tags, projects, or working set names to match (incl. * and ? wildcards)

```
Import Getting Started Content
Configuring java project MyProject
Updating Maven Dependencies (Blocked: The user operation is waiting for background work to complete.)
Refreshing Maven model
Download sources and javadoc (Sleeping)
```

> ***Note:*** *Below is the Welcome screen after you have successfully Created and Setup Spring Boot Project in Spring Tool Suite*



```
package com.example.demo;

import org.springframework.boot.SpringApplication;

@SpringBootApplication
public class MyProjectApplication {

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

}
```

code-editor

Create a Spring Boot Project in IntelliJ IDEA

IntelliJ is an integrated development environment(IDE) written in Java. It is used for developing computer software. This IDE is developed by Jetbrains and is available as an Apache 2 Licensed community edition and a commercial edition.

> ***Prerequisite:*** *Download and install IntelliJ IDEA.*

Step 1: Create a Spring Boot Project using Spring Initializr

1. Open a web browser and go to Spring Initializr.

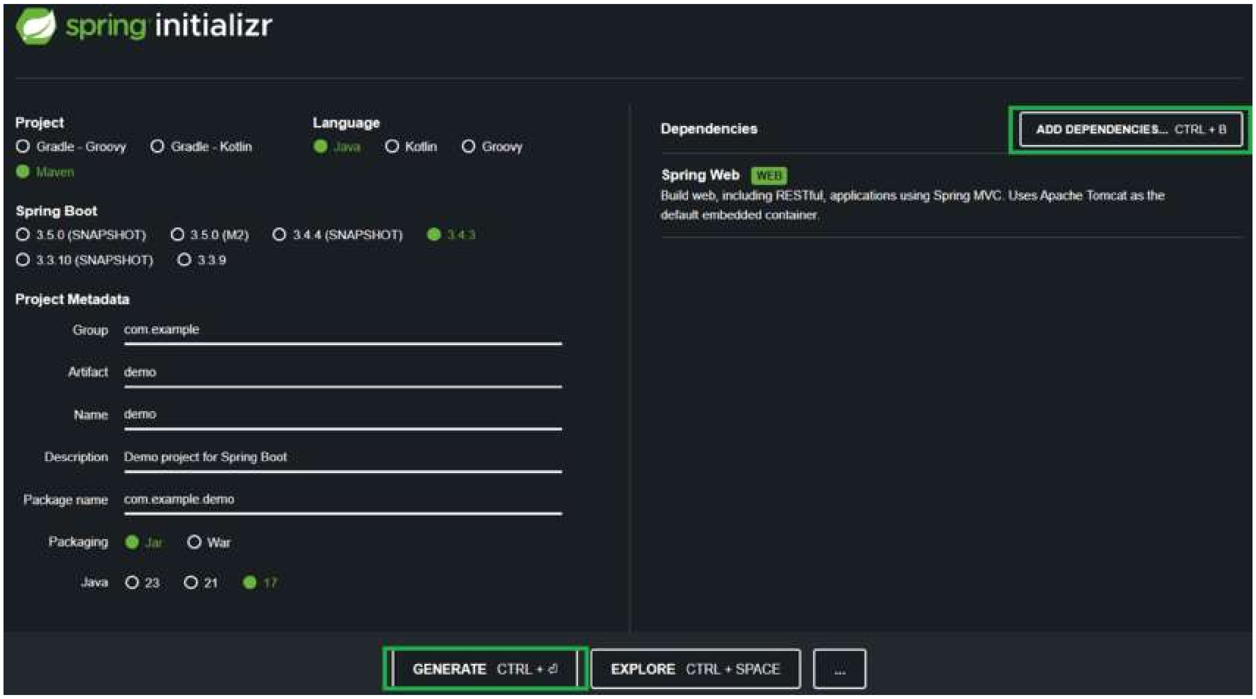
2. Fill in the project details:

- **Project:** Maven or Gradle
- **Language:** Java
- **Spring Boot Version:** (latest stable version recommended)
- **Project Metadata:** (Group, Artifact, Name, Description, Package Name)
- **Dependencies:** Add required dependencies such as Spring Web, Spring Data JPA, etc.

3. Click the **GENERATE** button.

4. A **ZIP file** of the Spring Boot project will be downloaded.

5. Extract the ZIP file to a folder on your local machine.



spring initializr

Project
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● Maven

Language
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Spring Boot
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Project Metadata

Group: com.example

Artifact: demo

Name: demo

Description: Demo project for Spring Boot

Package name: com.example.demo

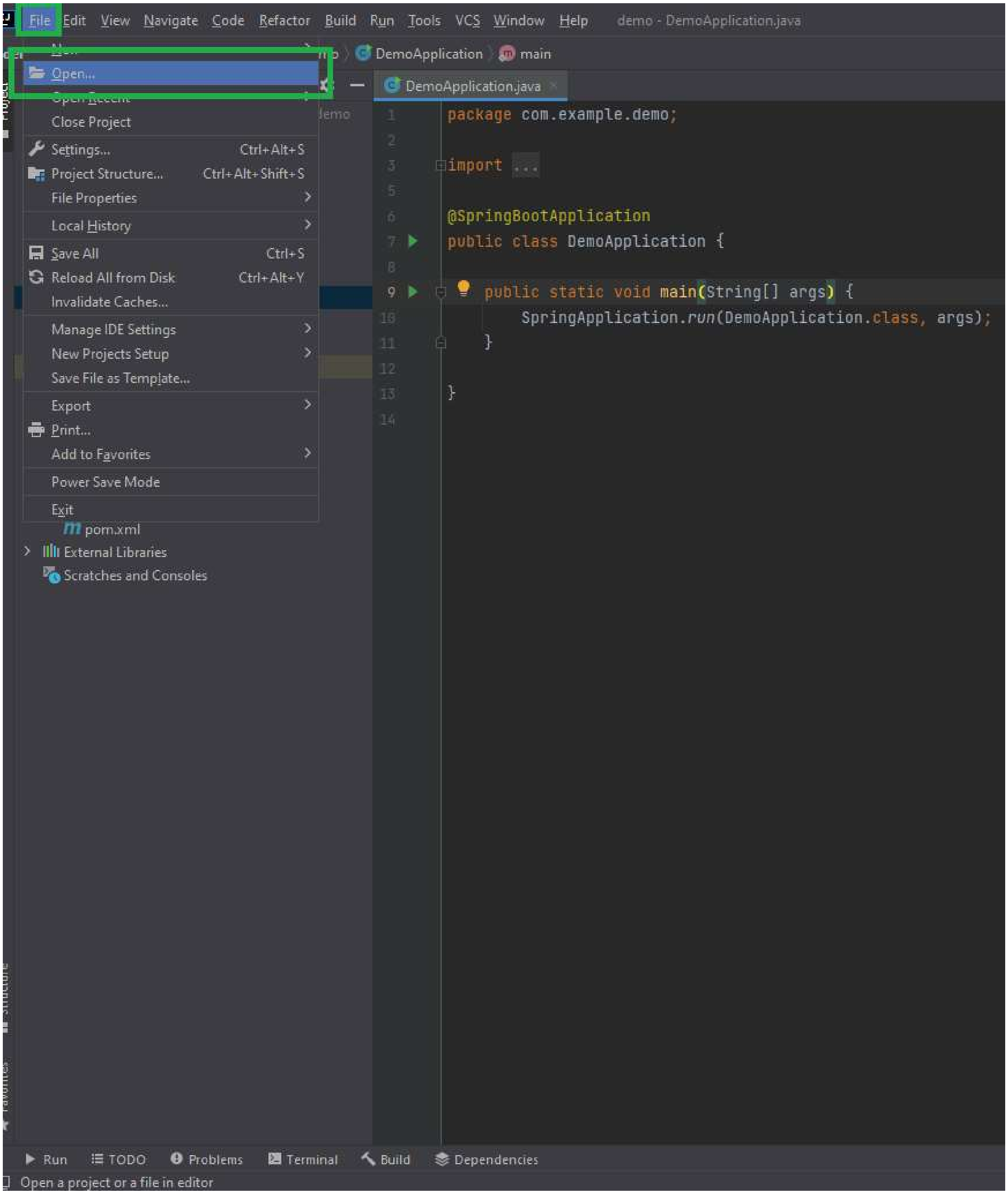
Packaging: ● Jar ○ War

Java: ○ 23 ○ 21 ● 17

Dependencies

Spring Web WEB
Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

Once IntelliJ IDEA is successfully installed, navigate to **File -> Open** as seen in the below image.



```
package com.example.demo;

import ...

@SpringBootApplication
public class DemoApplication {

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

}
```

Open a project or a file in editor

A pop-up window will appear where you need to select the Spring Boot project created in step 2 (e.g., "demo" in the Downloads folder). Finally, click OK, and IntelliJ IDEA will set up the project by downloading all the required files.