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# Introduction to Spring Boot

1. Overview of Spring Boot
2. Tooling up



# Section 1. Overview of Spring Boot

- What is Spring Boot?
- Getting Spring Boot
- Spring Boot documentation
- What can you do with Spring Boot?
- Spring Boot in the enterprise

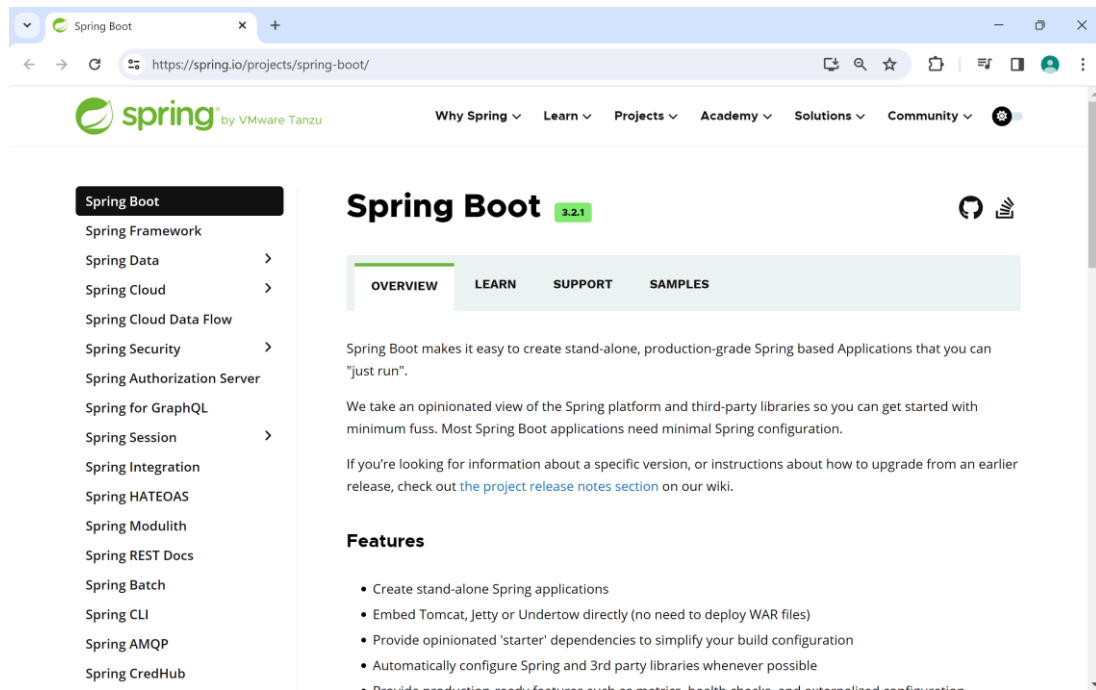
# What is Spring Boot?

- Spring Boot is a popular Java-based framework from Pivotal
  - Simplifies creating and running enterprise applications
- Allows you to create completely standalone applications
  - Applications can contain built-in servers, e.g. Tomcat or Jetty
  - No need for an external web server host to run on
  - You can just run a Spring Boot application as a regular Java app

```
java -jar MySpringBootApplication.jar
```

# Getting Spring Boot

- You can get the Spring Boot project here:
  - <https://spring.io/projects/spring-boot>



The screenshot shows the Spring Boot project page on the Spring.io website. The browser address bar displays `https://spring.io/projects/spring-boot/`. The page features a navigation bar with links for Why Spring, Learn, Projects, Academy, Solutions, and Community. A left sidebar lists various Spring projects, with Spring Boot highlighted. The main content area is titled "Spring Boot" with a version badge for "3.2.1". Below the title is a tabbed interface with "OVERVIEW", "LEARN", "SUPPORT", and "SAMPLES" tabs. The "OVERVIEW" tab is active, showing introductory text about Spring Boot's purpose and a list of features.

**Spring Boot** 3.2.1

**OVERVIEW** LEARN SUPPORT SAMPLES

Spring Boot makes it easy to create stand-alone, production-grade Spring based Applications that you can "just run".

We take an opinionated view of the Spring platform and third-party libraries so you can get started with minimum fuss. Most Spring Boot applications need minimal Spring configuration.

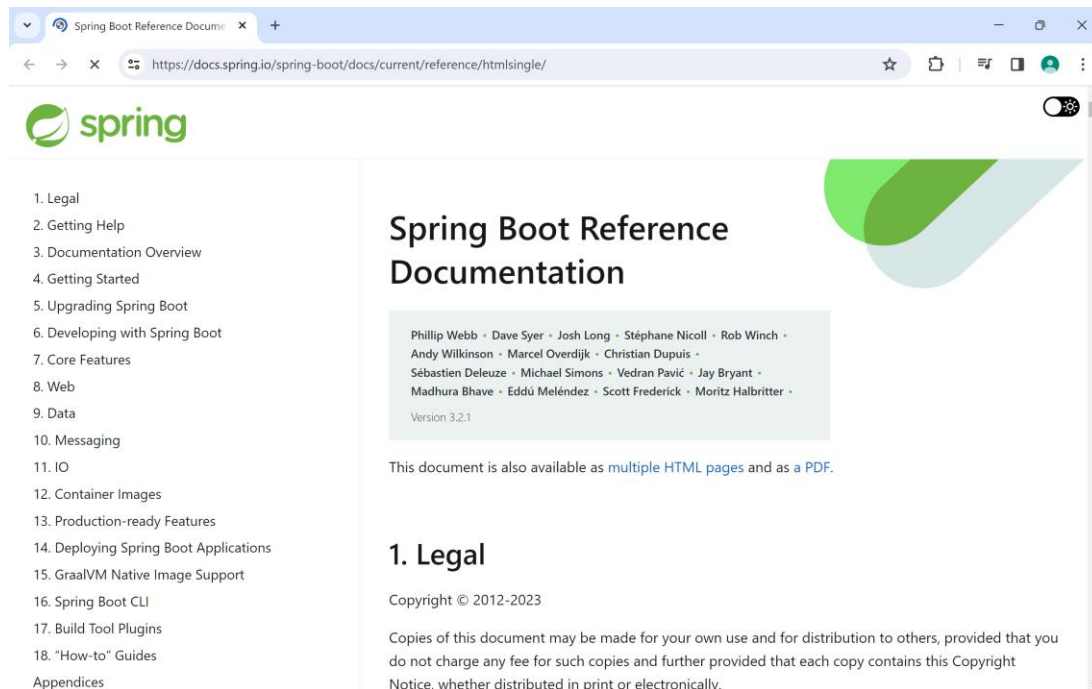
If you're looking for information about a specific version, or instructions about how to upgrade from an earlier release, check out [the project release notes section](#) on our wiki.

**Features**

- Create stand-alone Spring applications
- Embed Tomcat, Jetty or Undertow directly (no need to deploy WAR files)
- Provide opinionated 'starter' dependencies to simplify your build configuration
- Automatically configure Spring and 3rd party libraries whenever possible
- Provide production-ready features such as metrics, health checks, and externalized configuration

# Spring Boot Documentation

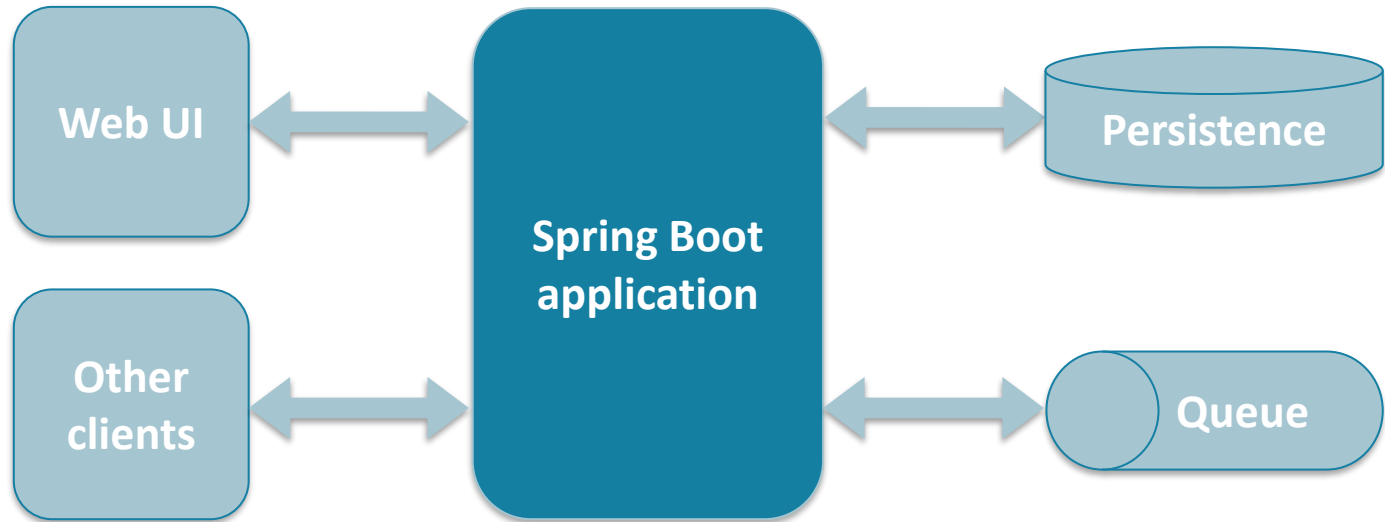
- Extensive Spring Boot documentation is available here:
  - <https://docs.spring.io/spring-boot/docs/current/reference/htmlsingle/>



# What Can You Do With Spring Boot?

- Spring Boot has extensive APIs that address all aspects of contemporary systems
  - REST services and Web applications
  - SQL and NoSQL data sources
  - Messaging, e.g. with Kafka
  - Spring Batch
  - Spring Cloud
  - Web sockets
  - Plus testing, security, logging, etc.

# Spring Boot in the Enterprise



## Section 2: Tooling Up

- Overview
- Setting up the Java Development Kit (JDK)
- Setting up IntelliJ IDEA Ultimate Edition



# Overview

- We're going to use the following tools:
  - Java Standard Edition Development Kit (JDK) version 21
  - IntelliJ IDEA Ultimate Edition
- Let's see how to set up these tools...

# Setting up the Java Development Kit

- You can install the Oracle JDK, which is available here:
  - <https://www.oracle.com/java/technologies/downloads/#java21>
- Alternatively, you can install OpenJDK, which is available here:
  - <https://openjdk.java.net/install/>
- You must also set two environment variables:
  - `JAVA_HOME` - must point to your JDK folder
  - `PATH` - must include your JDK binary folder

# Setting up IntelliJ IDEA Ultimate Edition

- You can install IntelliJ IDEA Ultimate Edition from here:
  - <https://www.jetbrains.com/idea/>
- Make sure you install the Ultimate Edition
  - You can install a free 30-day trial if you like
- We'll use IntelliJ IDEA to create and run Spring Boot apps

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# Summary

- Overview of Spring Boot
- Tooling up

