

# Using Maven

# Maven

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- ▶ Simplifies project management
- ▶ Centralized dependency management
- ▶ Automatic build process
- ▶ Easy integration with IDEs (like IntelliJ)
- ▶ Enforces project conventions
- ▶ Community support
- ▶ Used in Spring Initializr

# Maven - Simplifies project management

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- ▶ Provides a standardized way of managing Java projects
- ▶ Making it easier to create and manage complex projects
- ▶ Provides a set of best practices for organizing project structure

# Maven - Centralized dependency management

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- ▶ Simplifies dependency management
- ▶ Provides a centralized repository for all dependencies
- ▶ Ensures that everyone in the project uses the same versions of libraries

# Maven - Automatic build process

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- ▶ Automates the build process
- ▶ Makes it easy to build, test and package Java applications
- ▶ Provides plugins for common build tasks like compiling and running tests

# Maven - Easy integration with IDEs (like IntelliJ)

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- ▶ Integrates easily with popular Java IDEs like Eclipse and IntelliJ
- ▶ Allows developers to build, test and deploy applications from the IDE

# Maven - Enforces project conventions

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- ▶ Enforces a set of project conventions, like directory structure and naming conventions

# Maven - Community support

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- ▶ Has a large community of users and contributors
- ▶ Lot of documentation, tutorials and resources available online



# Maven - Used in Spring Initializr

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- ▶ Maven is one of the project management alternatives in Spring Initializr
- ▶ When selected Spring Initializr will generate a Maven project
- ▶ The Spring Boot auto configuration is then managed by Maven
- ▶ Maven can easily be used for compiling and packaging Spring applications

# Demo 1 - Using Maven

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- ▶ Dependencies in pom.xml
- ▶ Spring Starter Dependencies managed by Maven
- ▶ Project structure
- ▶ Updating dependencies
- ▶ Compiling, testing, packaging with Maven

# Exercise 1 - Using Maven

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- ▶ Examine a Spring Boot project and look for:
- ▶ Dependencies in pom.xml
- ▶ Project structure
- ▶ Try updating dependencies - remove a starter dependency and add it again, remember to update Maven after each update
- ▶ Try using Maven to compile, clean and package the application