

**Welcome to Week 1**

# **Java Academy**

## **Java Introduction**



PLURALSIGHT

Hello

**HELLO**  
my name is

**Allen Sanders**  
Senior Technology Instructor  
Pluralsight ELS

**About me...**



- 27+ years in the industry
- 23+ years in teaching
- Certified Cloud architect
- Passionate about learning
- Also, passionate about Reese's Cups!



# Agenda

- What is Java?
- Setting up our development environment
- Hello, World!
- Introduction to Maven



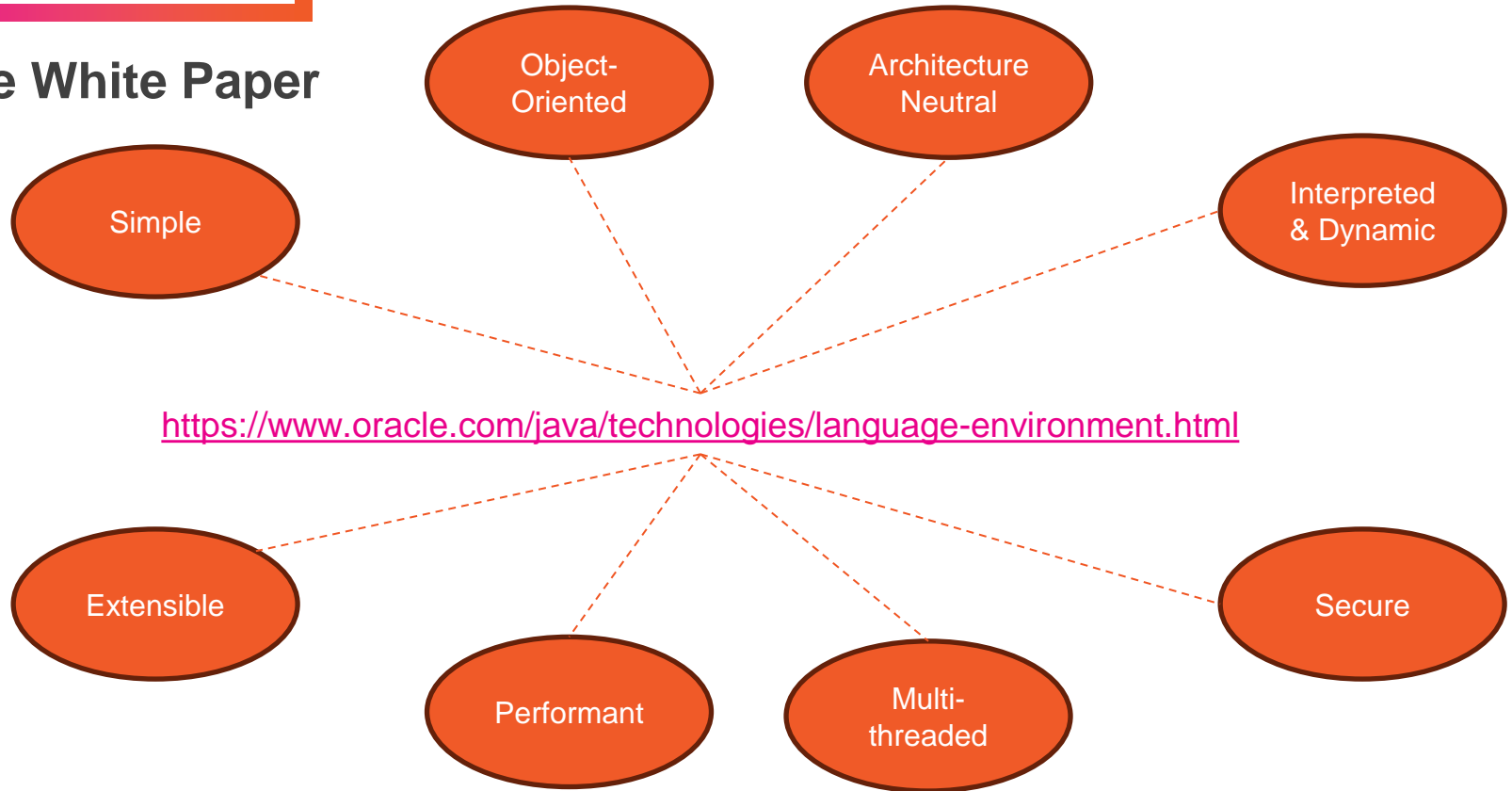
## How we're going to work together

- Slides and words to highlight key concepts
- Demos to bring those concepts “to life”
- Work in class
- Work from home
- NOTE: I welcome being interrupted – if you need more info, or clarification, or anything else, just break in and ask. I am here to help you.

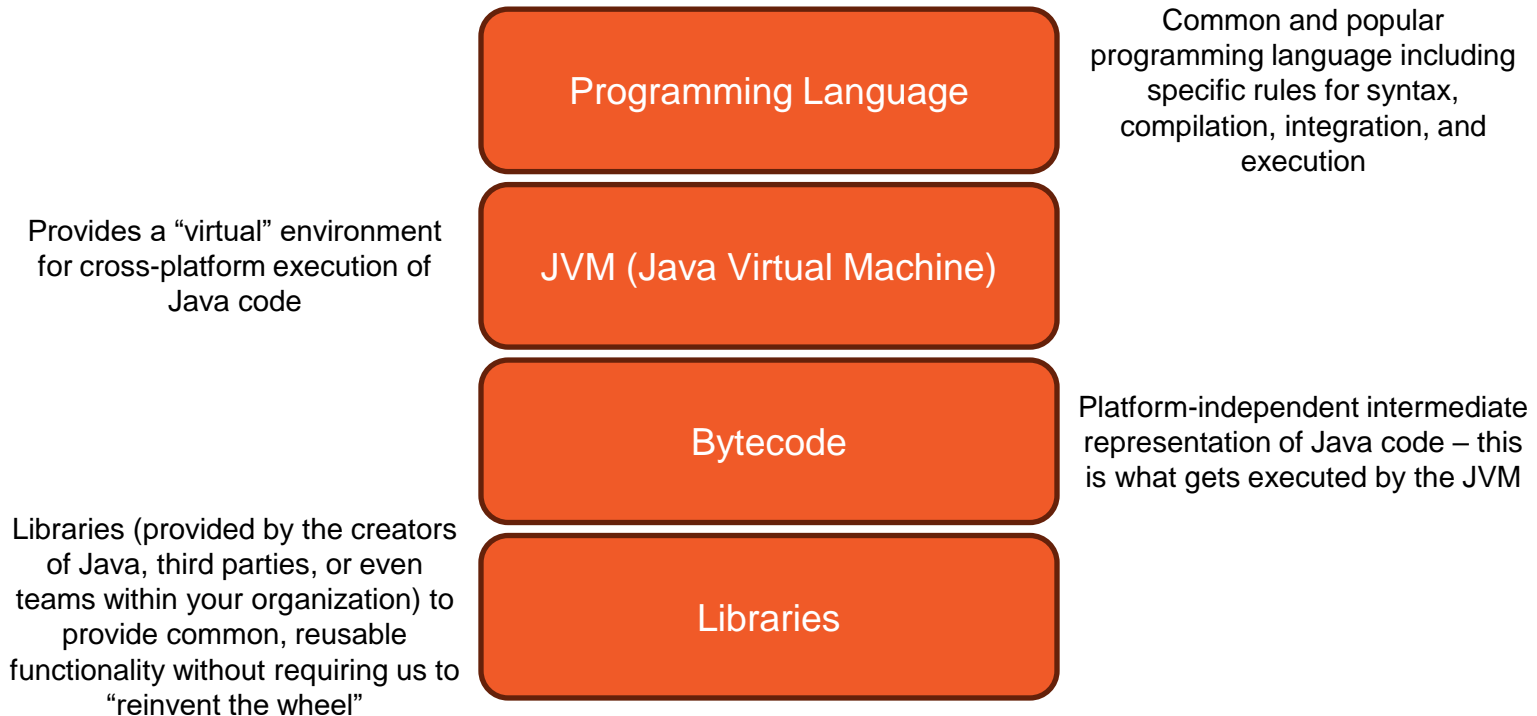


# What is Java?

# The White Paper



# Key Elements of Java



A decorative graphic consisting of a thick L-shaped bar. The vertical part on the left is pink, and the horizontal part extending to the right is orange. To the right of the orange bar, the background is filled with a grid of small, light gray dots.

# Developing in Java



## Developing in Java – Java Framework

More “slimmed down” installation  
of Java framework that can be  
used in environments that need to  
RUN Java code

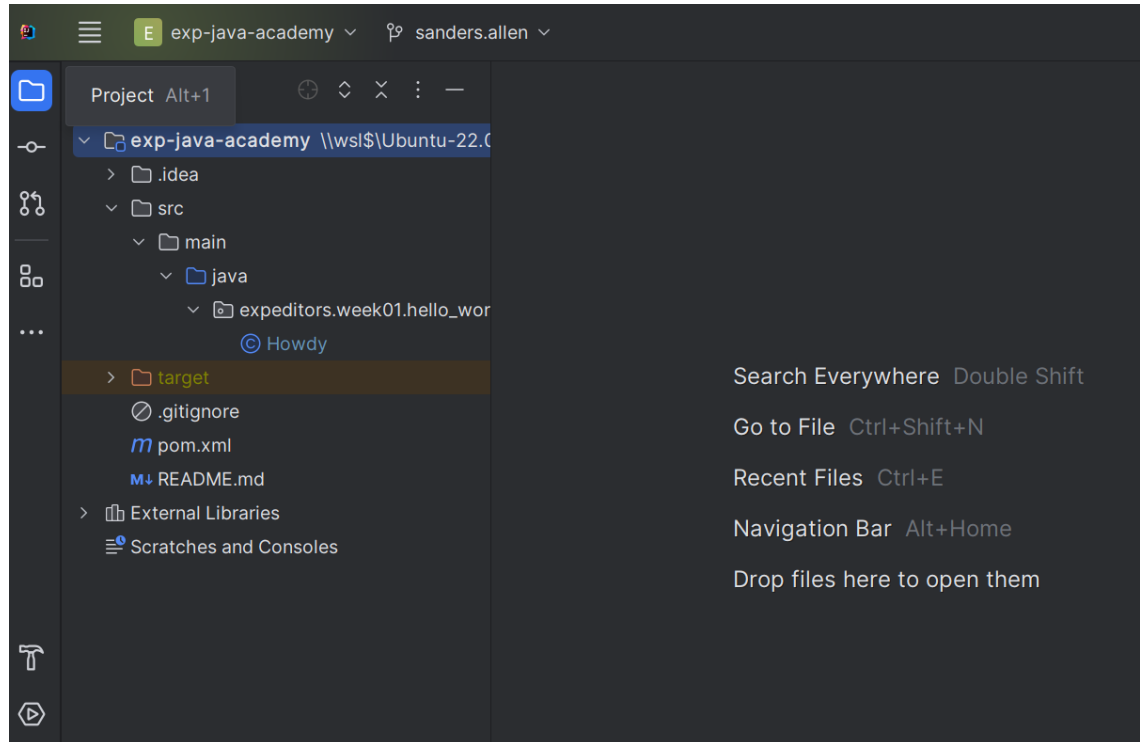
JRE (Java Runtime  
Environment)

JDK (Java Development Kit)

Installation of Java framework that  
can be used to support  
development and testing of Java  
applications

Several versions are supported – the focus of our Academy will be on version 21

# Developing in Java – IDE (Integrated Development Environment)



A decorative graphic consisting of a thick L-shaped line, with the horizontal part in pink and the vertical part in orange. To the right of this line is a large rectangular area filled with a grid of small white dots on a black background.

**Hello, World!**

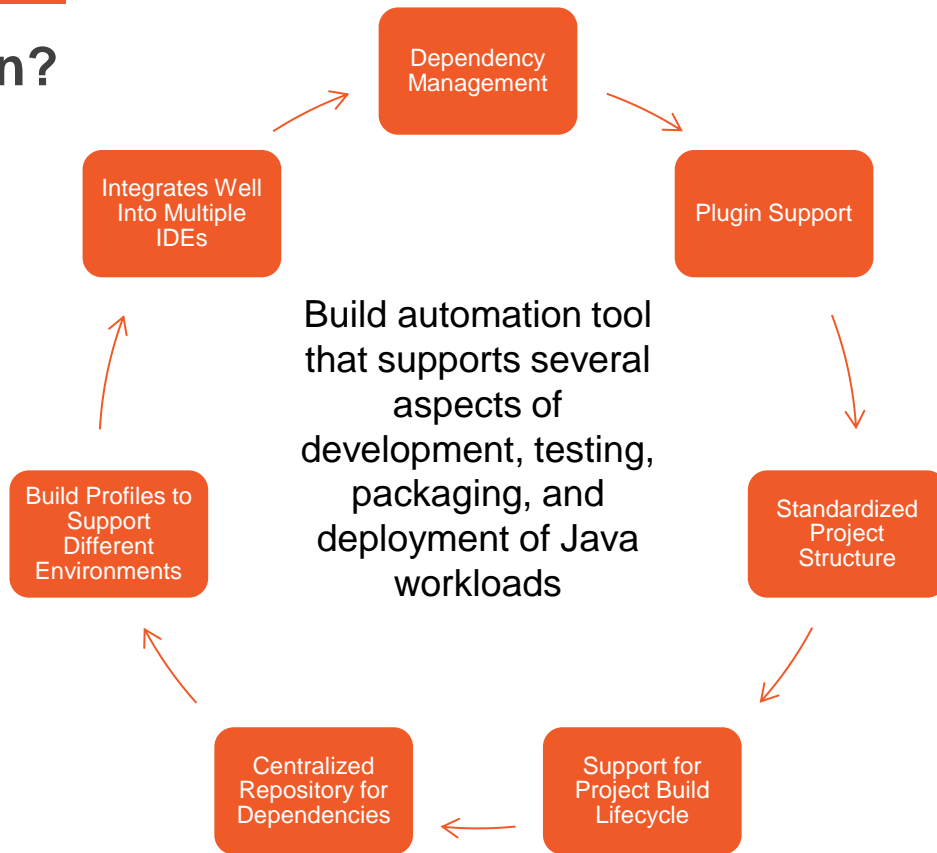
# System Class

- Part of the `java.lang` package  
(<https://docs.oracle.com/en/java/javase/21/docs/api/java.base/java/lang/System.html>)
- Includes a static field called `out` of type `PrintStream`  
(<https://docs.oracle.com/en/java/javase/21/docs/api/java.base/java/lang/System.html#out>)
- Provides several methods for printing data to the terminal including formatted output  
(<https://bootcamptoprod.com/the-ultimate-guide-to-printf-in-java/>)

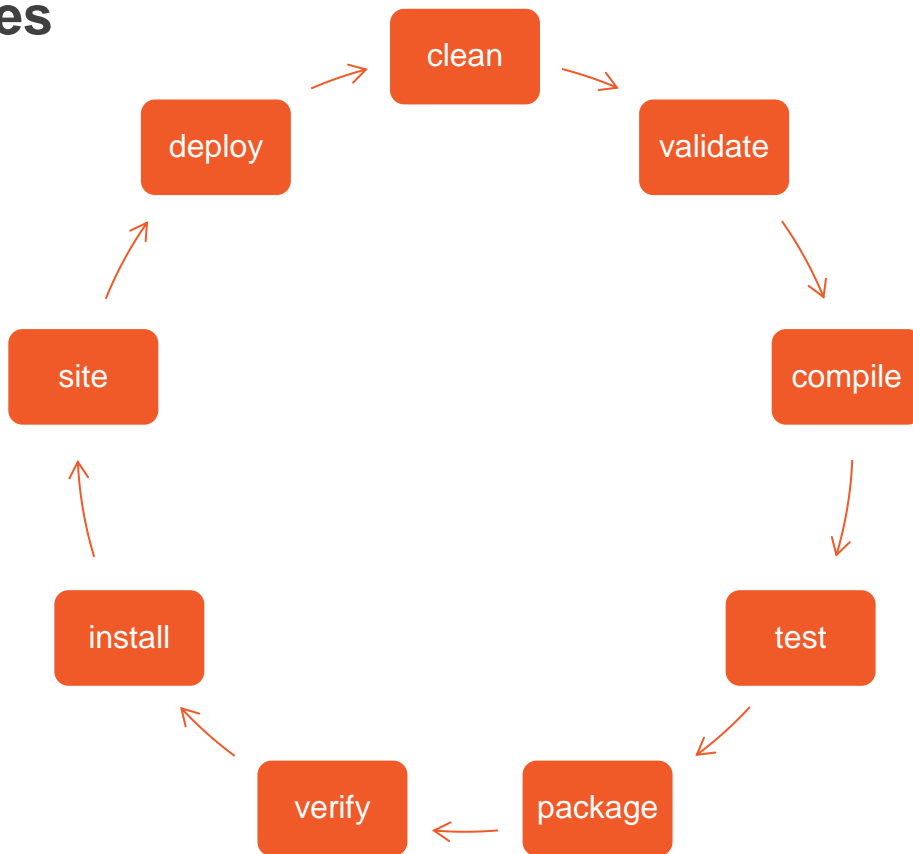
A decorative graphic consisting of a thick L-shaped bar, with the top horizontal segment in orange and the left vertical segment in pink. To the right of this bar, the background is filled with a grid of small, light gray dots.

# Introduction to Maven

# What is Maven?

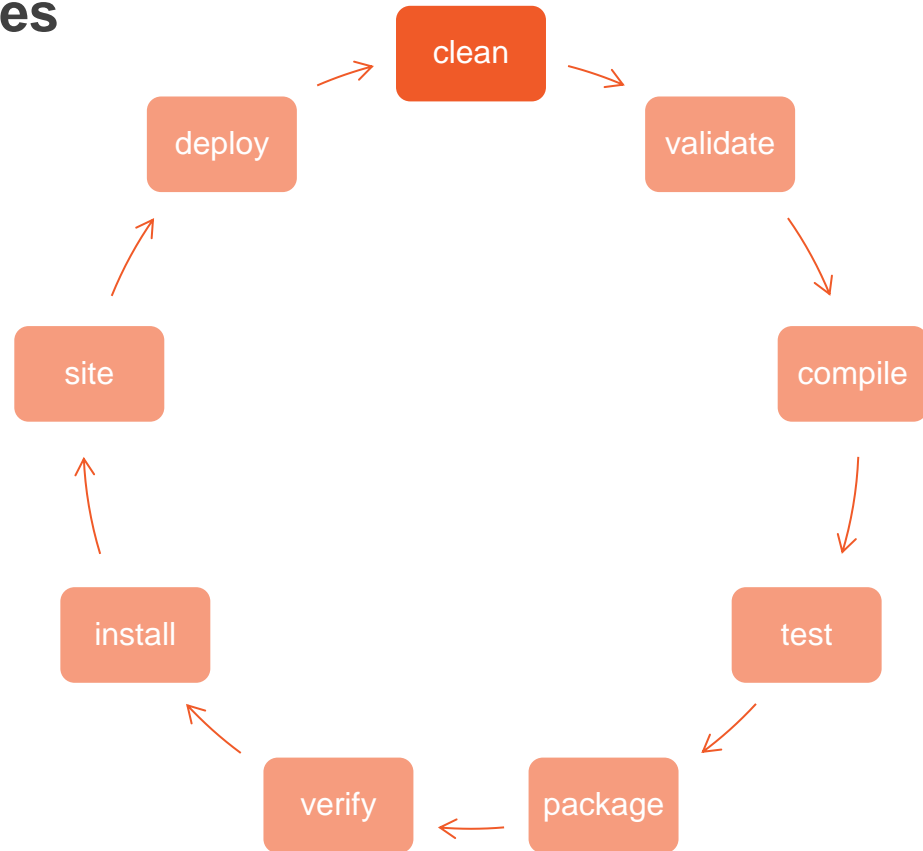


## Available Maven Capabilities



## Available Maven Capabilities

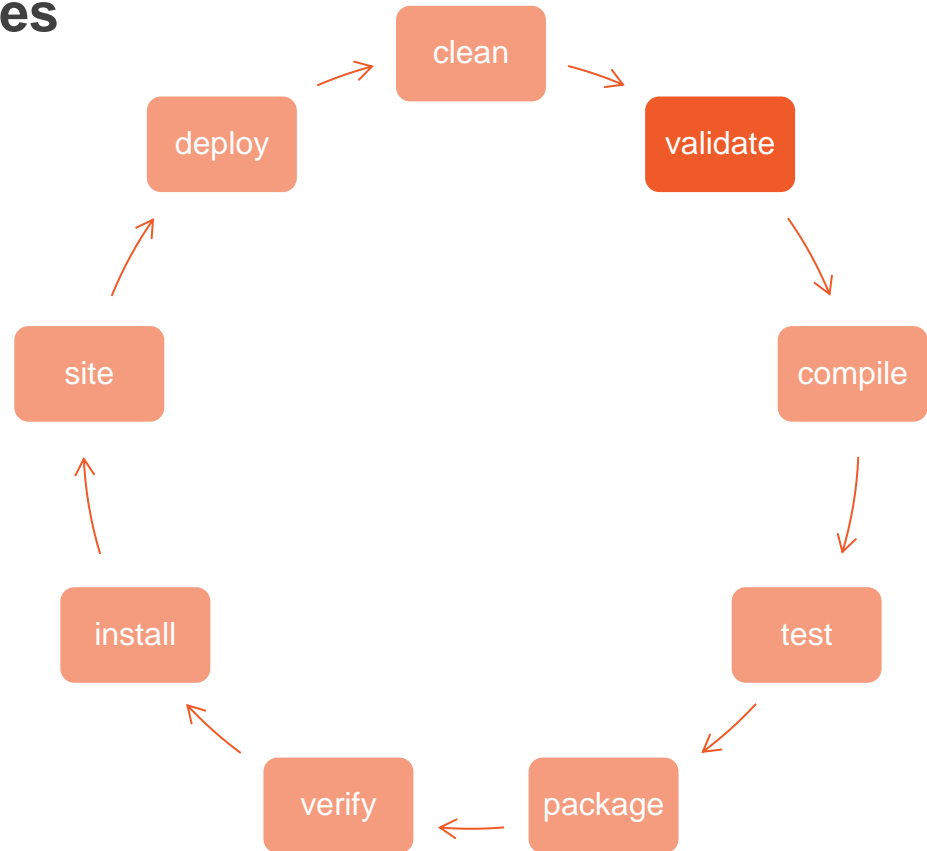
Used to clean up  
artifacts created from  
previous builds (when  
refreshing with updates)





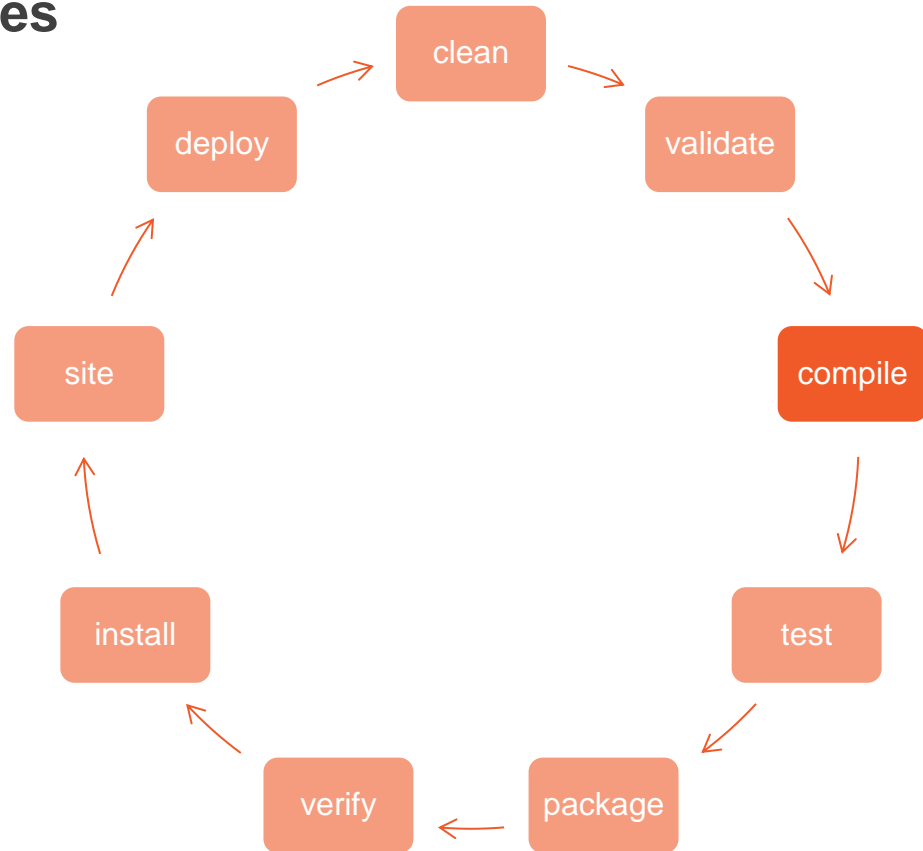
# Available Maven Capabilities

Validates the project for correctness and completeness (from the perspective of Maven)



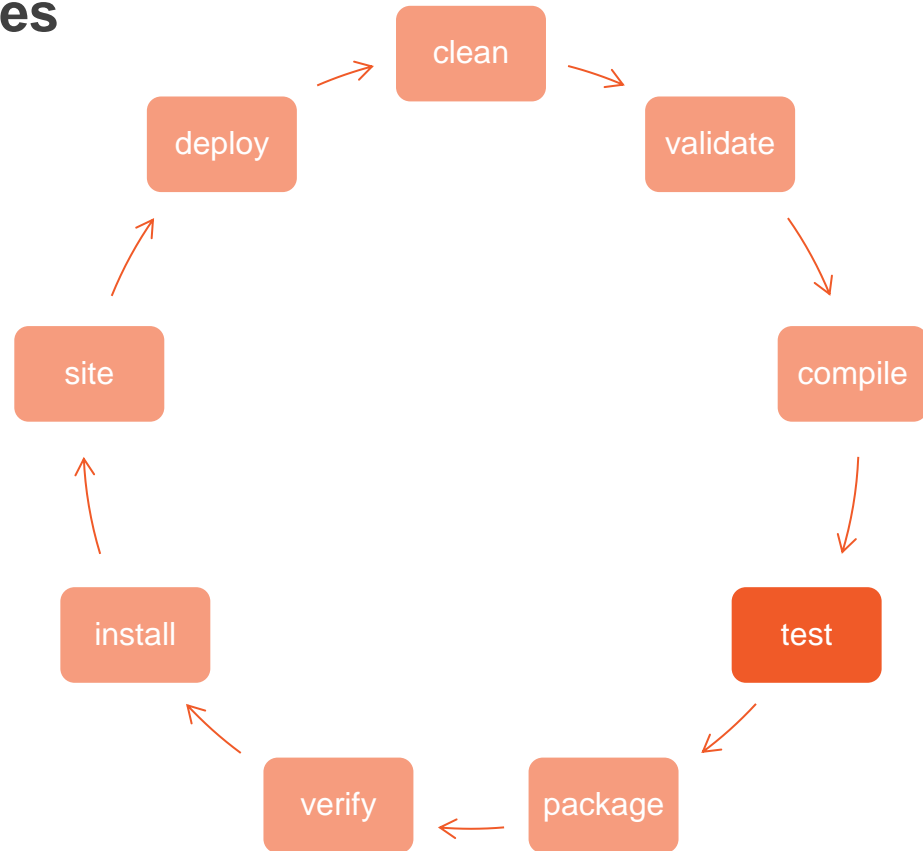
## Available Maven Capabilities

Compiles the project  
source code



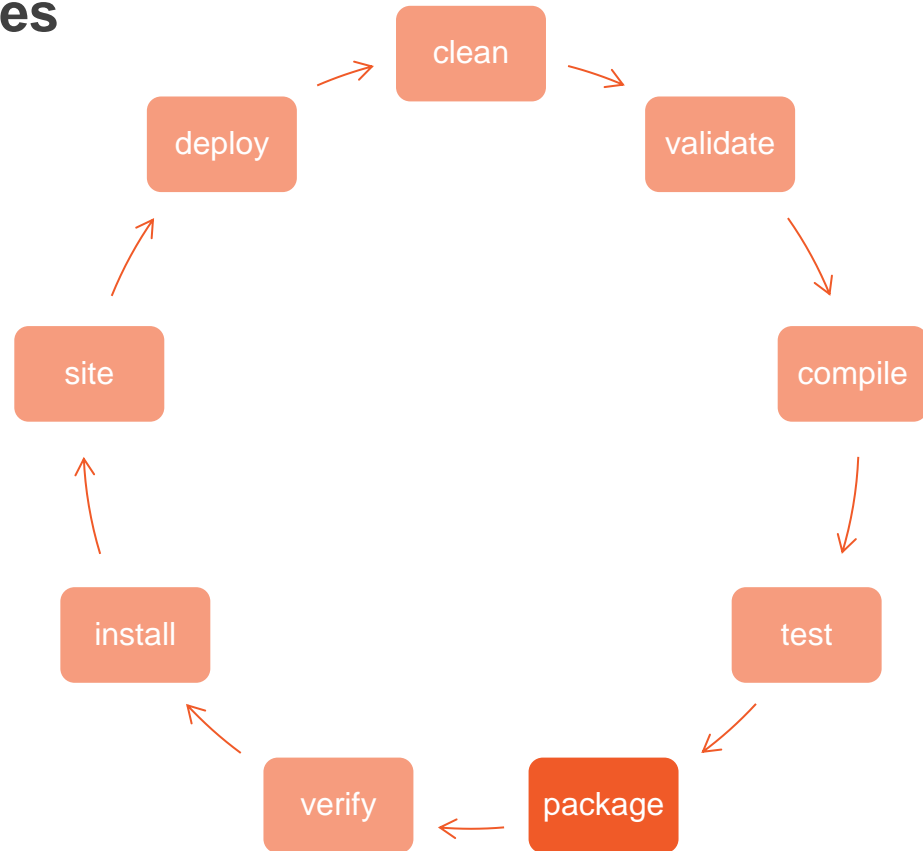
## Available Maven Capabilities

Enables testing of the source code in the project using a unit testing framework (like Junit)



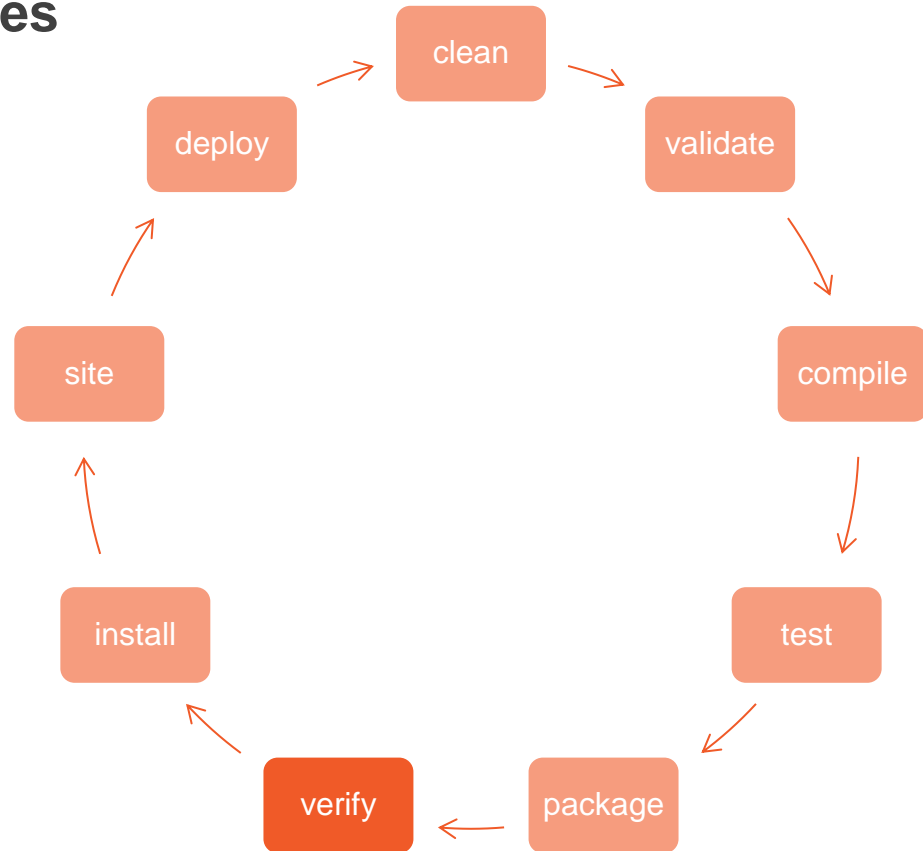
## Available Maven Capabilities

Package the code in a distributable format (e.g., JAR)



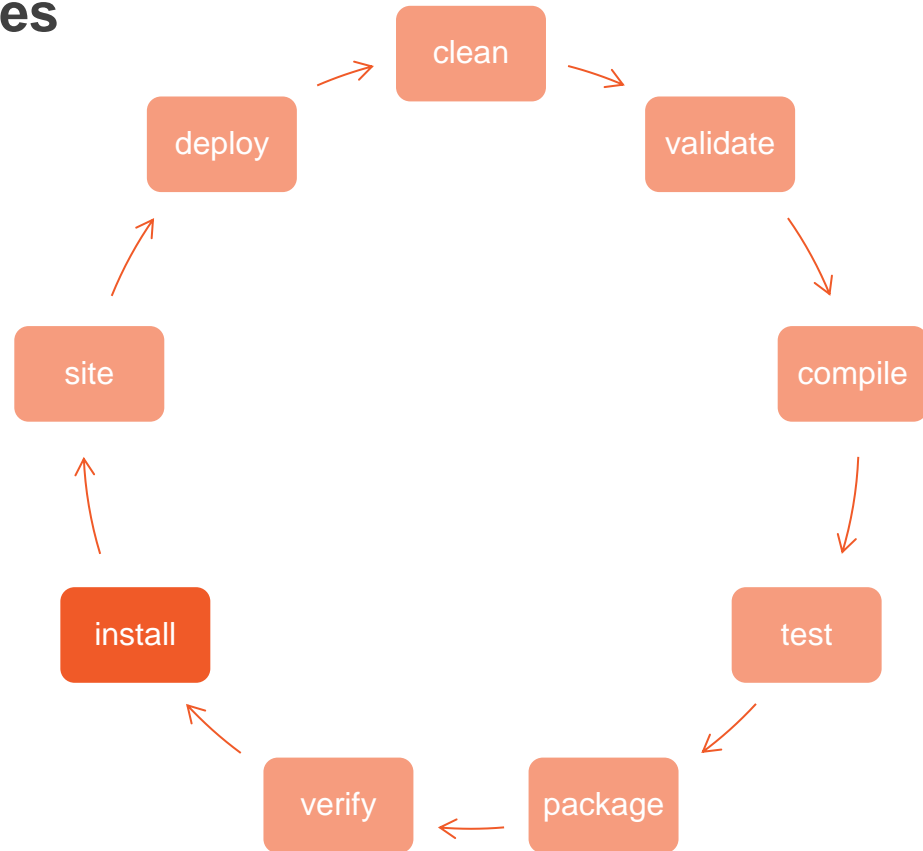
## Available Maven Capabilities

Runs a series of configured checks to verify that the package is valid and meets defined standards



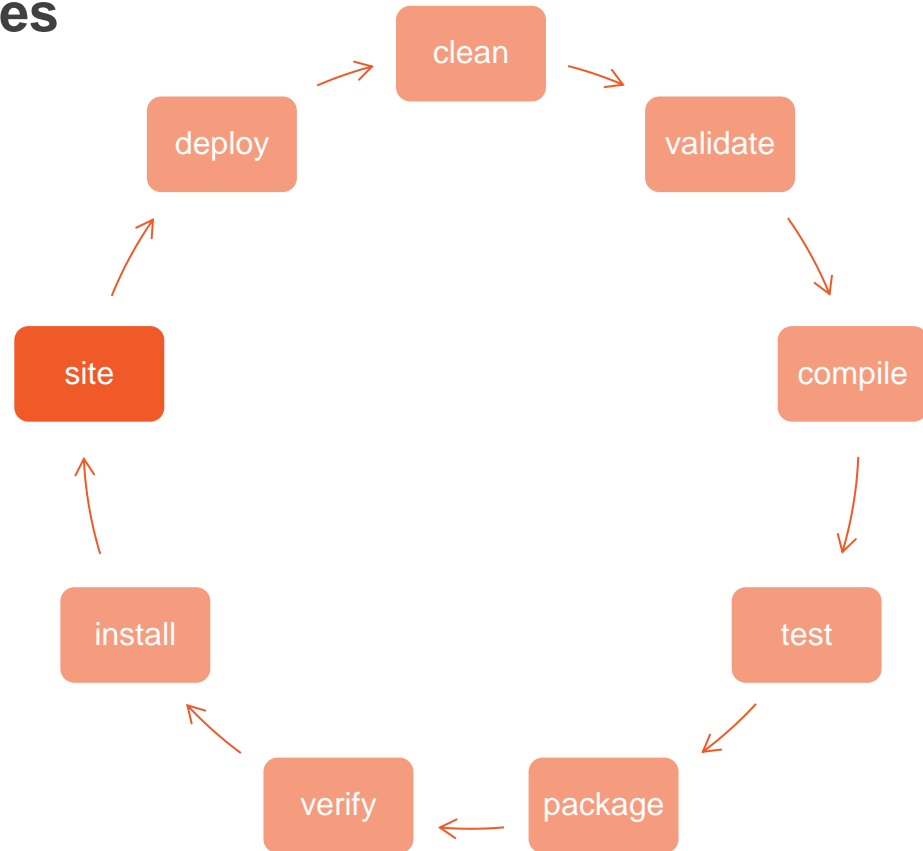
## Available Maven Capabilities

Installs the package into  
a local repository for use  
as a dependency in  
other projects (locally)



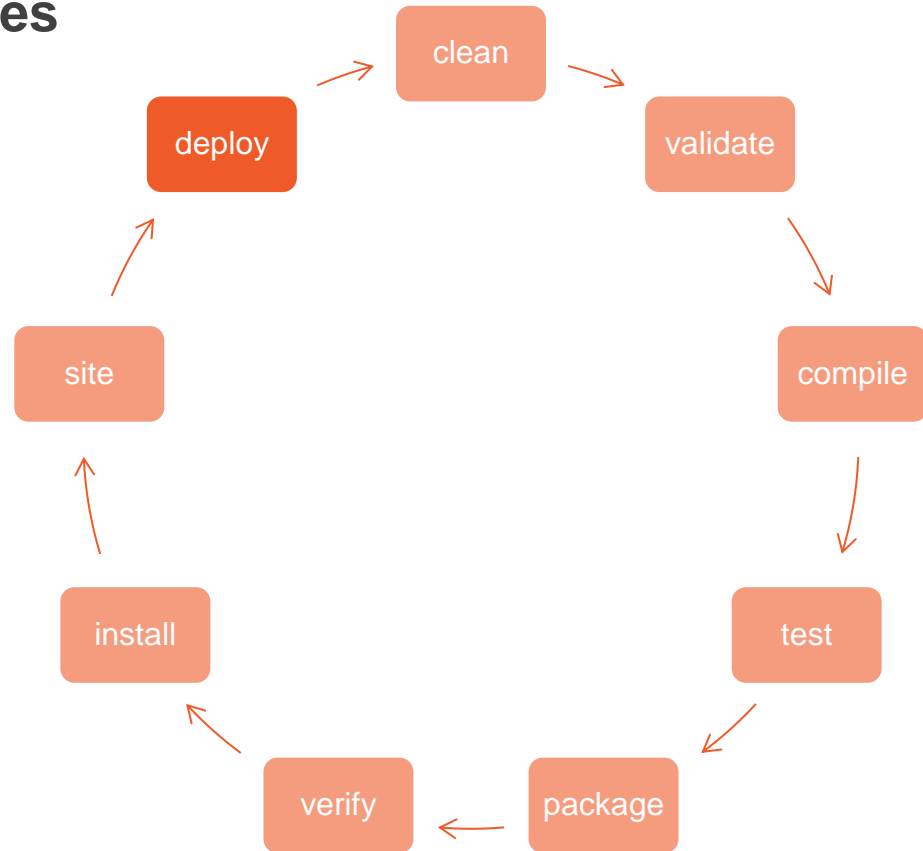
## Available Maven Capabilities

Can be used to generate  
a website or  
documentation for the  
project



## Available Maven Capabilities

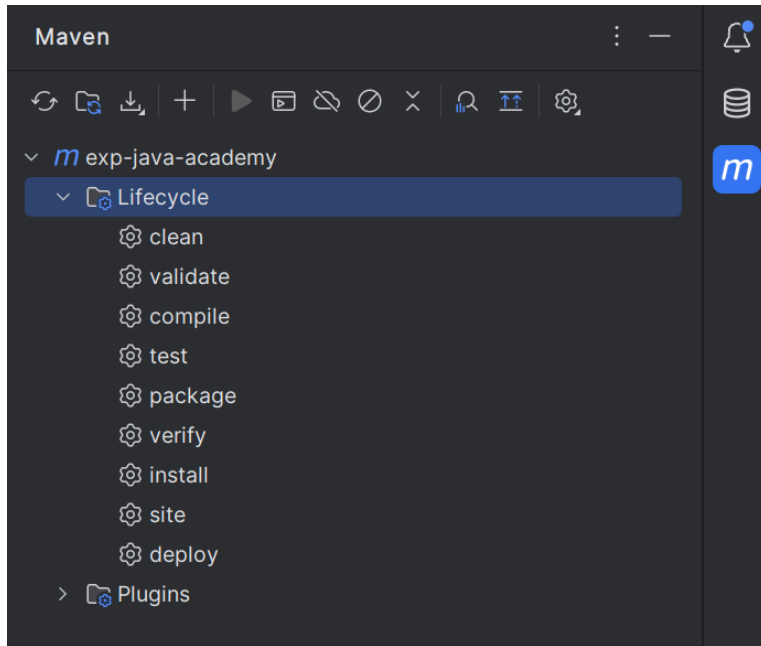
Copies package to  
remote repository for  
share with other  
developers or other  
projects (not local)





# Maven in IntelliJ

## Maven Tool Window



Or, via command-line

(<https://www.geeksforgeeks.org/maven-commands-and-options/>)



# Thank you!

If you have additional questions,  
please reach out to me at:  
[asanders@gamuttechnologysvcs.com](mailto:asanders@gamuttechnologysvcs.com)



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