

# Maven

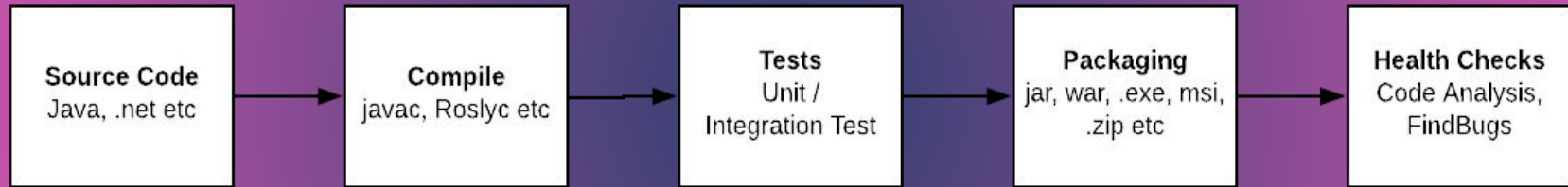
Build Tool

# Build Process

## Code to Software

- ★ Source code
- ★ Compile
- ★ Test
- ★ Package

# Build Process



## Build Tools => Automates Build Process

### Maven

Java.  
Build file: XML Format

### Ant

Java  
Build file: XML Format

### MsBuild

The Microsoft Build Engine is a platform for building applications

### Gradle

DSL based on Groovy

### & NANT

Windows .net platform

### Make

builds executable programs and libraries from source code

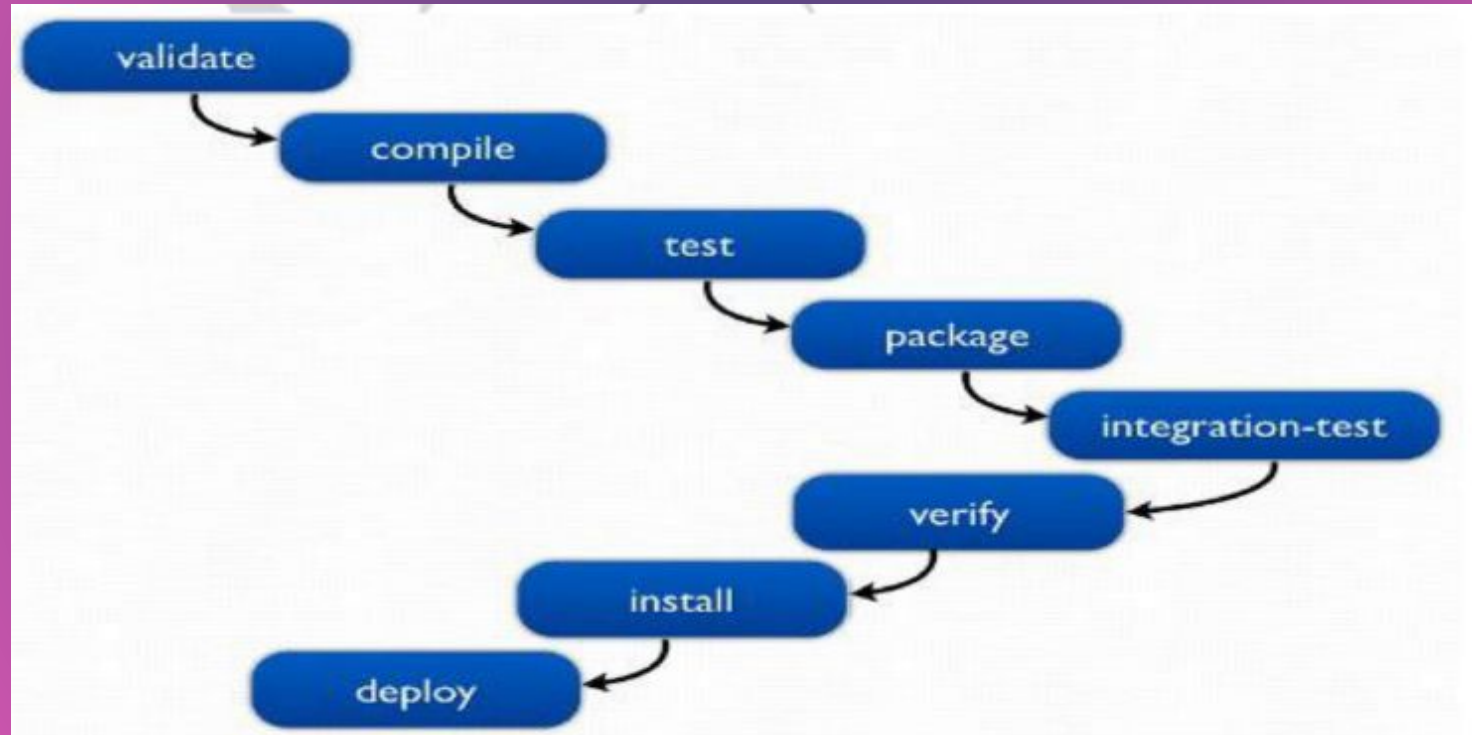


# Maven

Build Tool for JAVA

# Maven Phases

*Ma**ven* TM





# A Build Lifecycle is Made Up of Phases

- **validate** - validate the project is correct and all necessary information is available
- **compile** - compile the source code of the project
- **test** - test the compiled source code using a suitable unit testing framework. These tests should not require the code be packaged or deployed
- **package** - take the compiled code and package it in its distributable format, such as a JAR.
- **verify** - run any checks on results of integration tests to ensure quality criteria are met
- **install** - install the package into the local repository, for use as a dependency in other projects locally
- **deploy** - done in the build environment, copies the final package to the remote repository for sharing with other developers and projects.

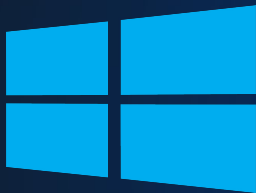
<https://maven.apache.org/guides/introduction/introduction-to-the-lifecycle.html>

# Installing Maven



## Dependency

- Java Development Kit (JDK)



Windows

`choco install maven`



Mac OS

`brew install maven`



Linux

Install via Package manager  
(yum, apt, snap etc)