

# CI Workflow

Video 3.2

# What you will learn in this video

## Theory:

- Define the CI workflow
- Familiarize with the Maven build tool

## Practice:

- Start implementing a CI workflow
- Fork a GitHub repository, create a new Jenkins job, and build it via Maven

# Continuous Integration Workflow

**maven**

Build, Test, Package, and Deploy



Notify



slack

Trigger Job



# Prerequisites

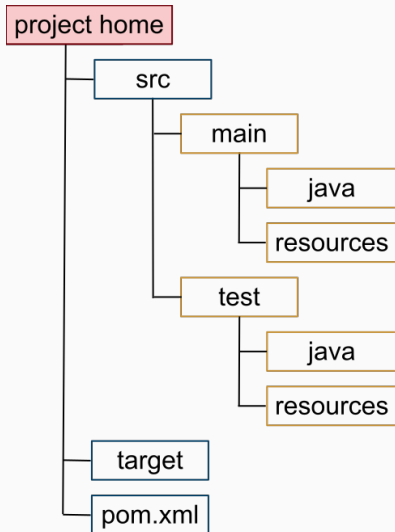
- Install Maven
  - Within Jenkins in Manage Jenkins -> Global Tool Configuration -> Maven
  - At the OS level: <https://maven.apache.org/install.html>
- Open an account on GitHub: <https://github.com/join>

# What is Maven?

- Popular cross-platform **build tool**, especially for Java projects
- Declarative **dependency management**
- Defined **directory structure** and **build life cycle** (compile, test, package, deploy, etc.)
- **Convention over configuration** (i.e. provides default values for project configuration)

The logo for Apache Maven, featuring the word "maven" in a bold, italicized sans-serif font. The letter 'a' is colored orange, while the remaining letters 'm', 'v', 'e', 'n' are black.

# Defined Directory Structure



# Default Build Life Cycle

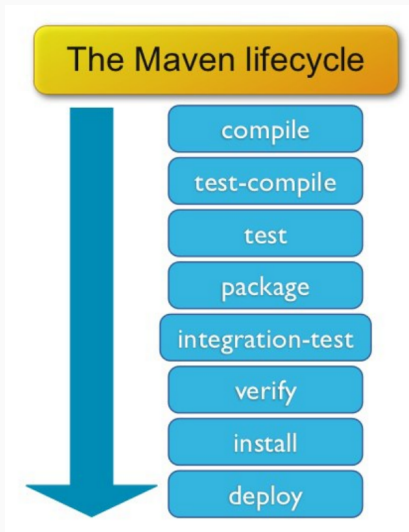


Image: <https://automationtalks.com/2017/11/15/introduction-maven-maven-build-tool>

# CI Workflow: Demo

**maven**

Build, Test, Package, and Deploy



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# CI Workflow: Demo

**maven**

Build, Test, Package, and Deploy



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Trigger Job



1. Fork a GitHub repo

# CI Workflow: Demo

**maven**

Build, Test, Package, and Deploy

2. Create a Jenkins job



Notify



Trigger Job



1. Fork a GitHub repo

# CI Workflow: Demo

## **maven** 3. Build and deploy with Maven

Build, Test, Package, and Deploy

## 2. Create a Jenkins job



Notify



Trigger Job

## 1. Fork a GitHub repo



## References

- GitHub repository at <https://github.com/wakaleo/game-of-life>
- Conway's Game of Life at [https://en.wikipedia.org/wiki/Conway's\\_Game\\_of\\_Life](https://en.wikipedia.org/wiki/Conway's_Game_of_Life)
- Example taken from *Jenkins: The Definitive Guide* by John Ferguson Smart

# Next Video

Video 3.3 Testing workflow

