

Copyright © 2016 by The Learning House.

All rights reserved. No part of these materials may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of The Learning House. For permission requests, write to The Learning House, addressed “Attention: Permissions Coordinator,” at the address below.

The Learning House
427 S. 4th Street #300
Louisville KY 40202



Spring Core Unit – Software Development Lifecycle

Lesson 2 - Intro to Maven

Objectives

- High-level Maven overview
- Create a Maven project in NetBeans
- Understand Maven project lifecycle
- Understand the structure of a Maven project
- Understand Maven dependency management
- Understand Maven profiles

What is Maven?

- Project Management Framework
- Declarative build management tool
- **Not** task-oriented
- Dependency Management
- Defined but flexible lifecycle
- **Big** subject — we'll concentrate on dependency management, profiles

Project Object Model (POM)

- Declarative
- Dependency declarations handle importing libraries
- All libraries are downloaded to central repository on your machine (.m2 directory)
- Maven handles **transitive dependencies**

Maven Lifecycle

- Several stages, or “goals”
- Major examples:
 - generate-sources
 - compile
 - test-compile
 - test
 - package
 - install
 - deploy
- See Maven site for complete list

Profiles

- Allow you to customize settings for particular environments (e.g. dev vs. integration test)
- Takes three steps:
 1. Add profile tag to POM (contains values to be substituted into config files)
 2. Enable filtering in POM
 3. Replace actual values in config files with placeholders
- We'll look at this later in the course

End Result

- Look at example program structure
 - Sources/Resources
 - Test Sources/Resources
 - Target — includes “site” (generated technical docs)
- Look at local cache
 - Should be in `${homedir}/.m2`
 - Contains all downloaded dependencies
 - Contain all installed artifacts

Customization

- Use local mirror for retrieving dependencies
- Change location of your local dependency cache
- We won't do any customization in this course