



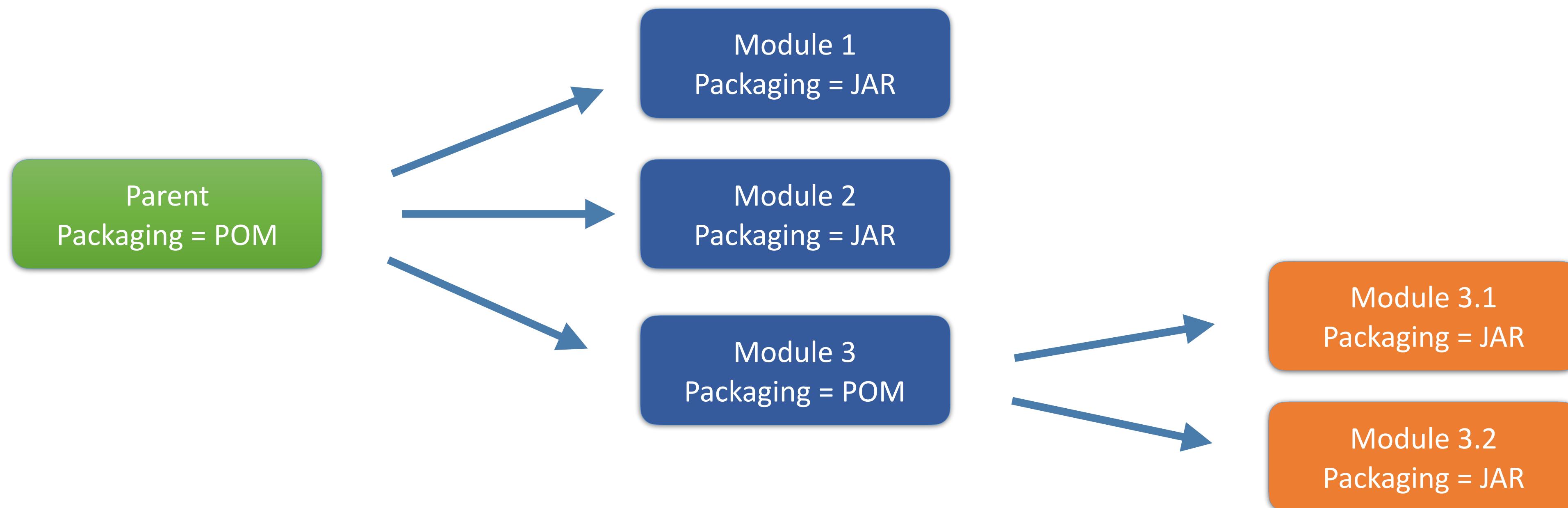
Apache Maven

Beginner to Guru

Multi-Module Maven Projects



Overview of Multi-Module Projects





Multiple Modules in Maven

- Important to remember each module is effectively a Maven project
 - Just happens to inherit from its parent module
 - Much like the 'effective' POM
- Each module can have child modules
 - Important for organization on larger projects





Maven Reactor

- Known simply as '**The Reactor**'
- The Reactor is what builds each module of the Maven project
- The Reactor collects the modules to build
- The Reactor will then run selected build lifecycle against each module
- The Reactor will determine the build order of the modules
- By default The Reactor will build modules sequentially
 - Optionally can use threads to build modules in parallel





Reactor Build Order

- Factors determining the build order used by Reactor:
 - Project dependencies - modules used by other modules in the project will get built first
 - Plugin declaration - ie if module is a plugin used by other modules
 - Order of modules declared in 'modules' section of POM







Multi-Module Code Smells

- Try to use modules only when needed
- Do not **over-use** modules
 - Multiple modules **will slow down** your build
- Code Smells with Modules:
 - One class or interface in a module
 - Many small modules which could be combined
 - “Someone might need...”



