Introduction

Thursday, June 7, 2018 12:02 PM

Build Management

① Create a object file → Compilation (Create (or) convert)

All individual java files into a object file

② Assemble all the object files → Assembly

Create a product or a binary or a artifact using which we run and obtain some functionality

Compilation + Assembly = Build.

- Individual developer compiled files cannot be used by a QA (Quality Analyst)

QA looks at the overall product

- Developer environment is not stable
- Environment should be similar to what a Customer (or) QA will have
- Developer will be doing so many

- Developer will be doing ... things in parallel

Build management — How quickly (or) efficiently we can create a product from the source code

Maven — Not just a build tool
- Also helps to manage the project
- Gives defined life cycle
- A set of standards are followed
- Do a complete dependancy of a project

Managing project

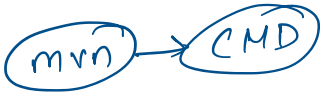
- Maven is more than just Build Tool
- Maven was built considering certain objectives
- Maven Provides:
  - Easy Build Process
  - Uniform Build System — Reuse in different projects
  - Quality Project Information
  - Guidelines for Best Practices Development

  Maven Provides:
- Achieved Characteristics:
  - Visibility
  - Reusability
  - Maintainability
  - Comprehensibility "Accumulator of Knowledge"

Comparison with ANT

ANT → Target → build.XML
MAVEN → Goal → POM.XML

1. One level above ANT
2. Higher level of reusability between builds
3. Faster turnaround time to set up a powerful build
4. Project website generation
5. Less maintenance
6. Greater momentum
7. Repository management
8. Automatic downloads



corresponding goal → Plugins available in maven
↓
... plugins tasks are

Corresponding goal → plugins

↓

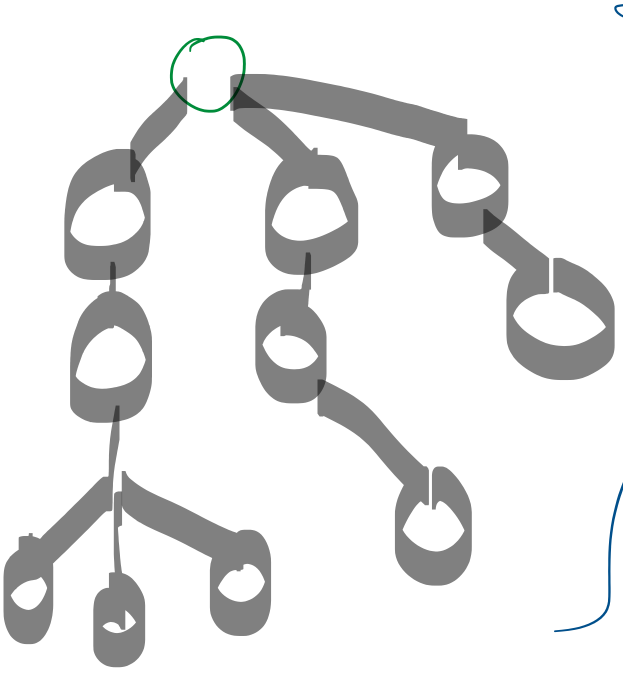
using plugins tasks are executed

mvn → goals → plugin → tasks → Based on java & for java

- Goals are internally associated with plugins

Maven Features

- Build tool
- Dependancy Management tool
- Documentation tool



- No need to specify all the files
- Specify one file rest is taken care by Maven