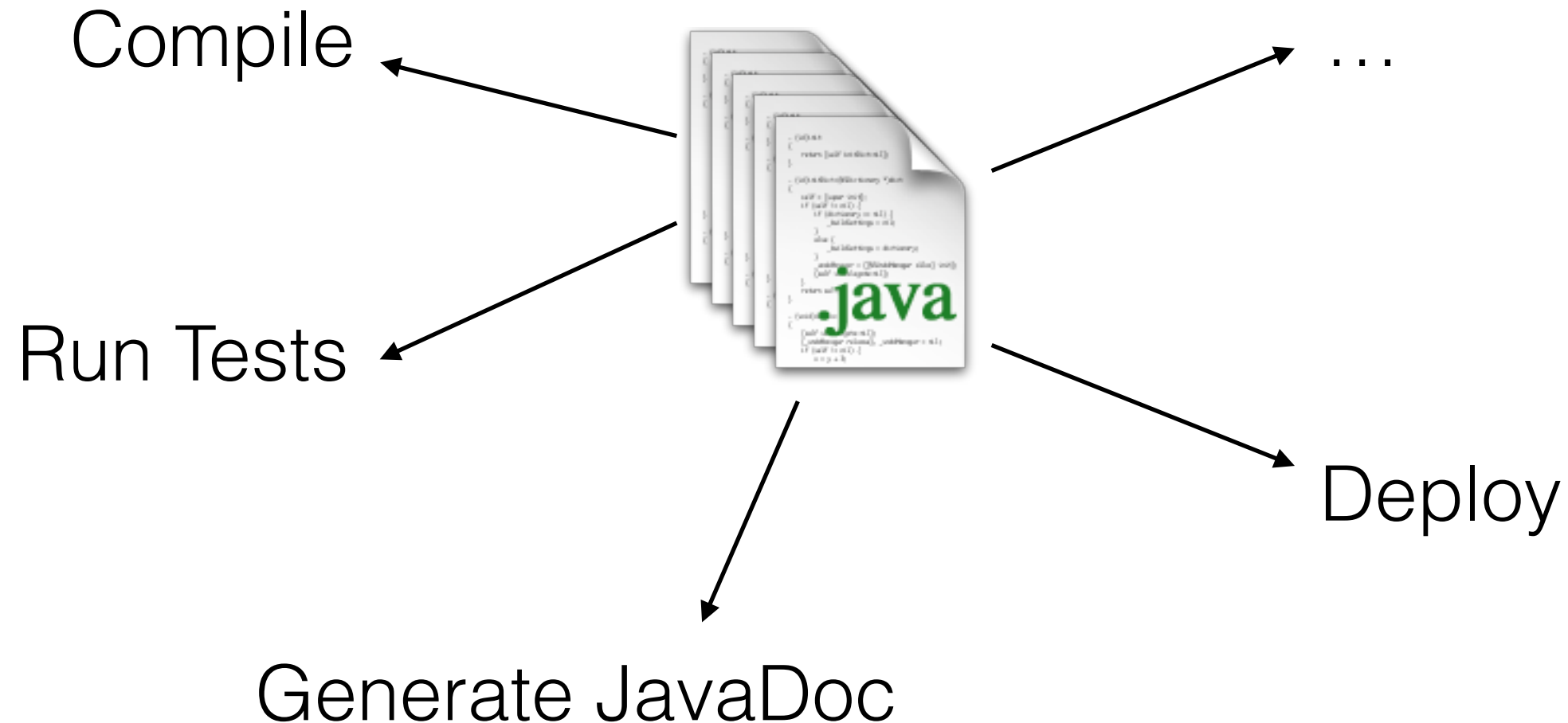
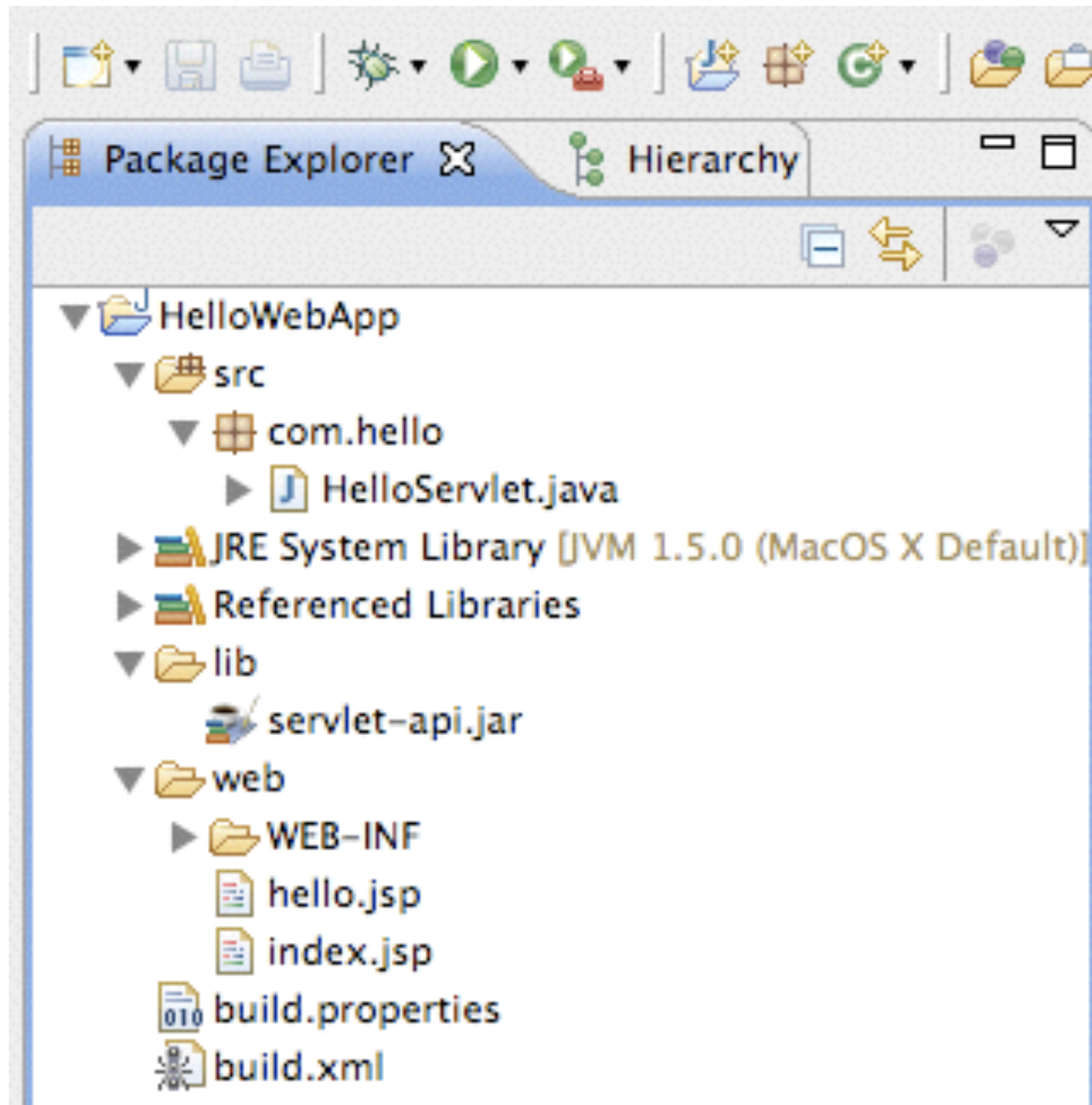




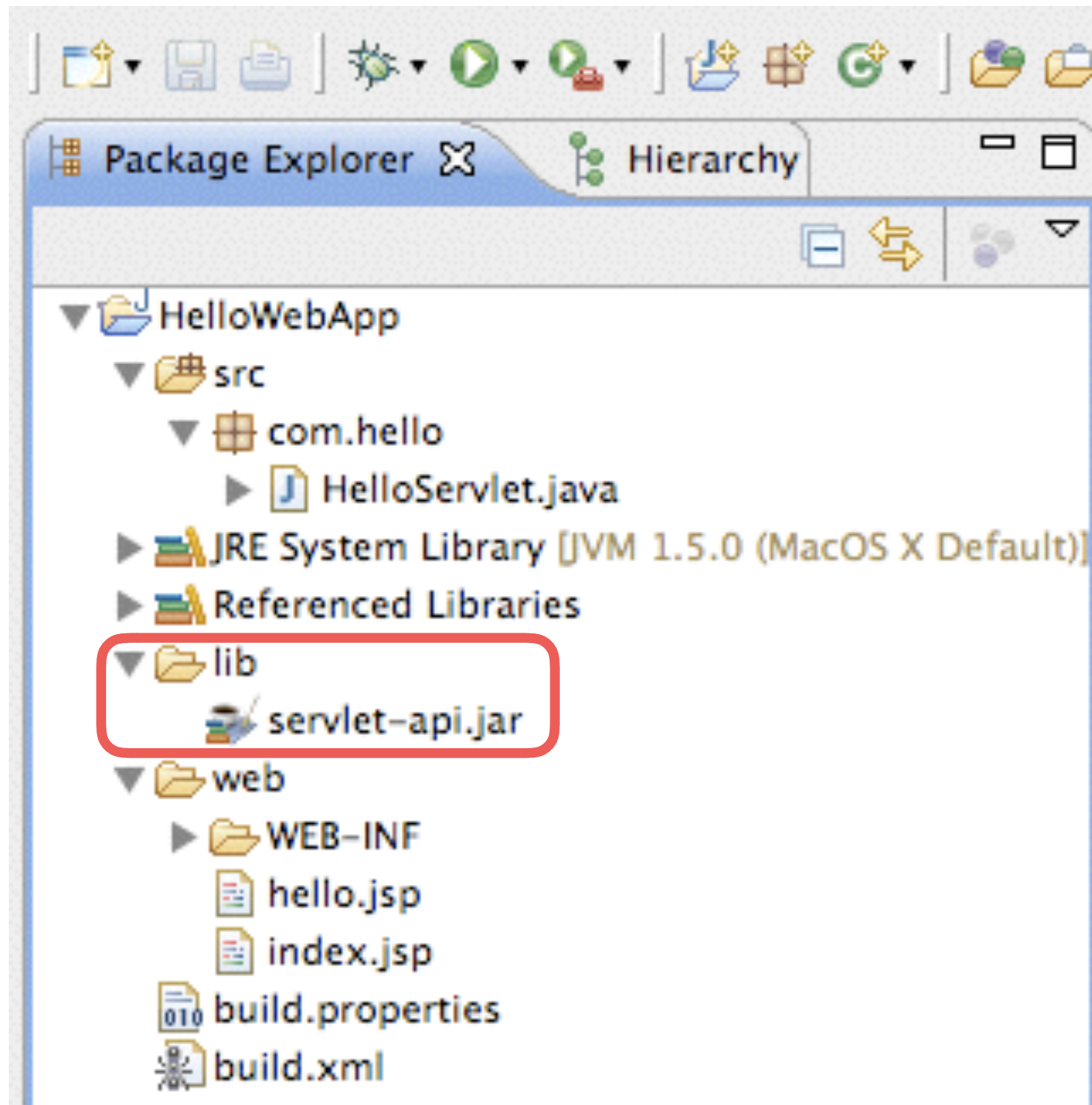
Maven is a Build Tool



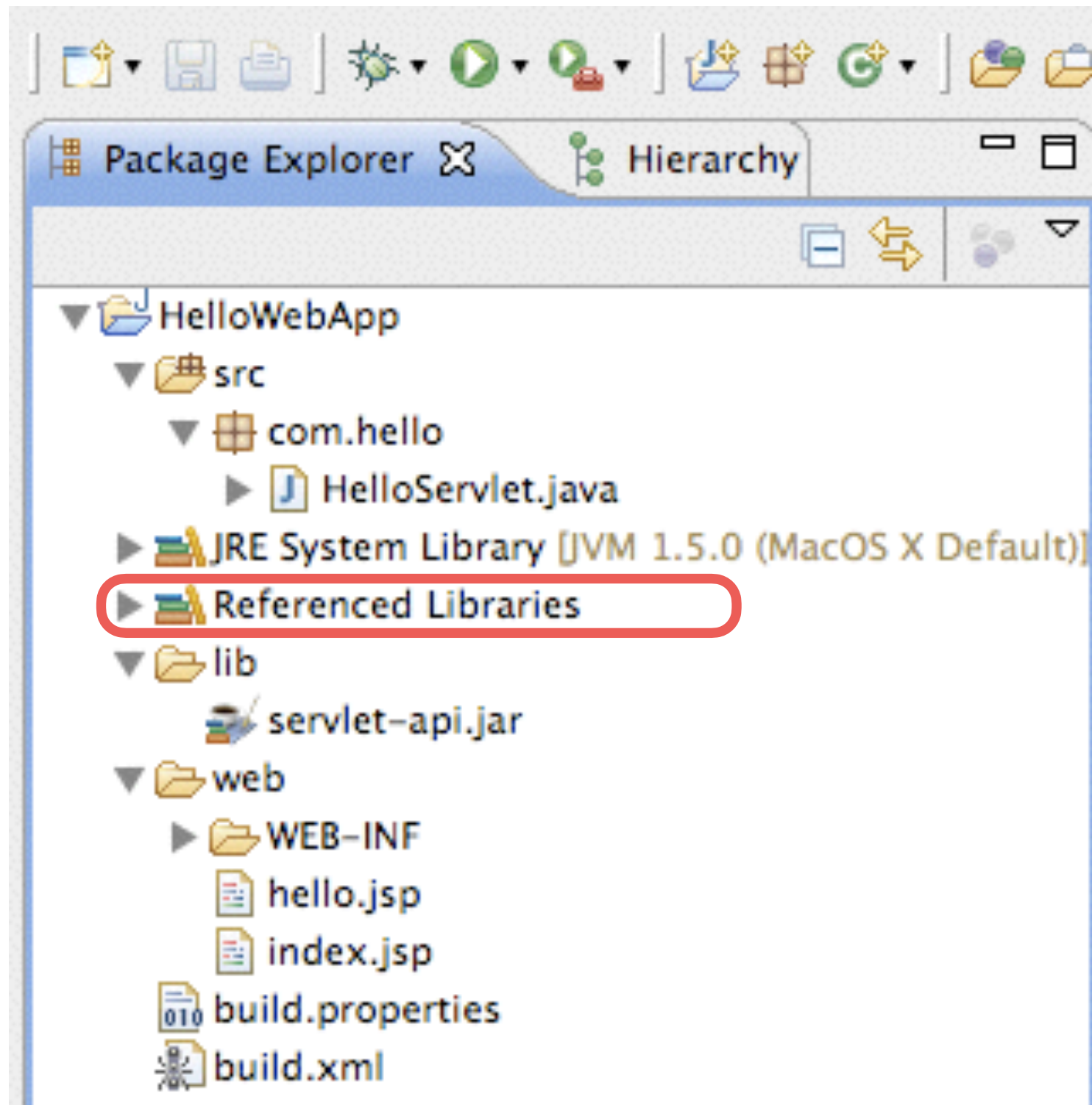
Maven is a Dependency Management Tool



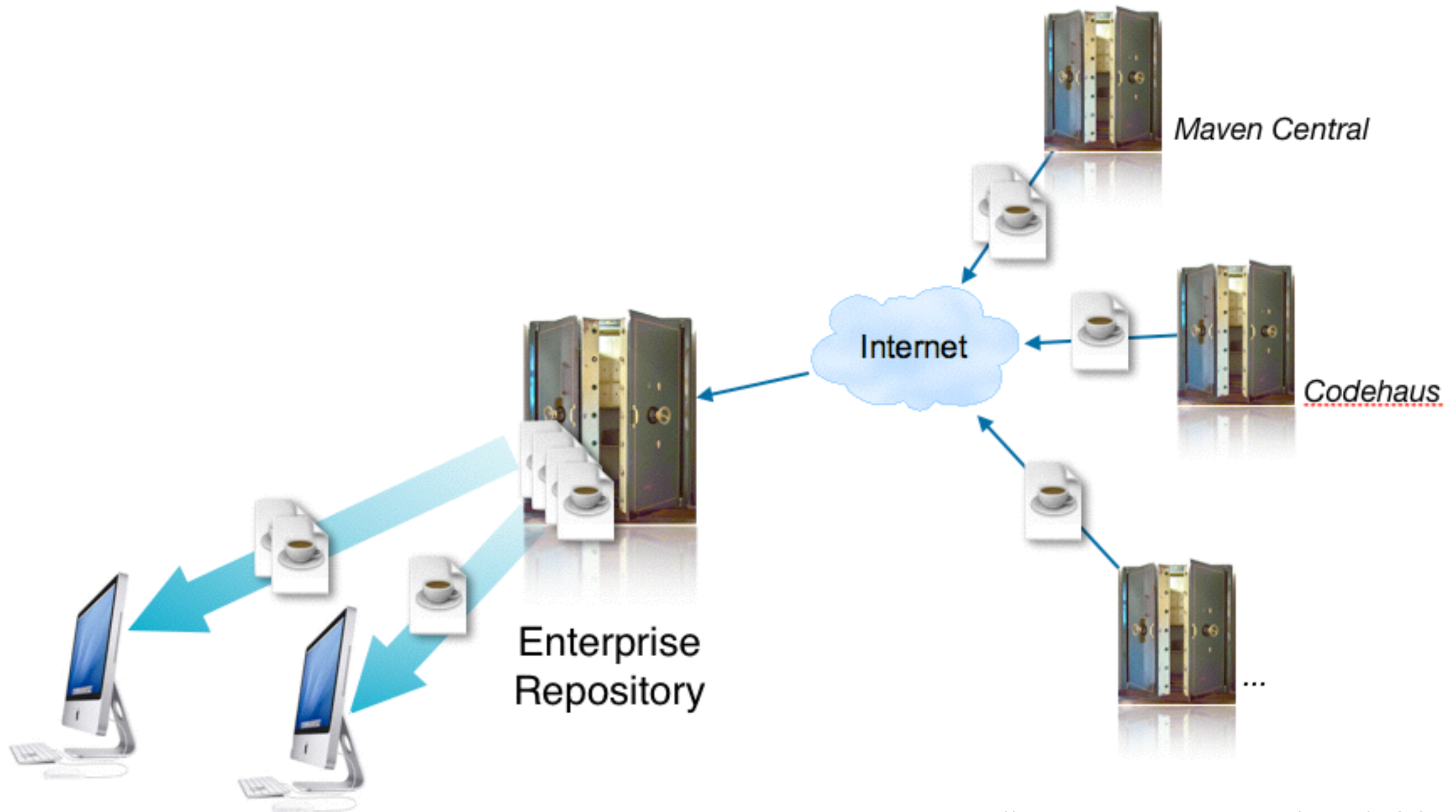
Maven is a Dependency Management Tool



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Maven is a Dependency Management Tool











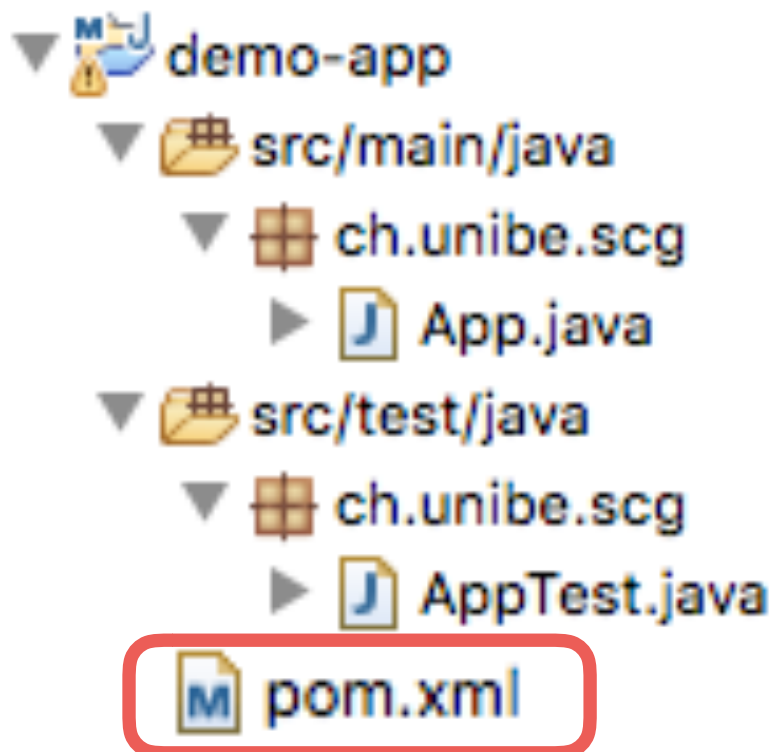
mvn archetype:generate (Create a new project)

-DartifactId=*demo-app* (with this name)

-DgroupId=*ch.unibe.scg* (with this package prefix)

-DarchetypeArtifactId=*maven-archetype-quickstart*
(using this template)

- ▼  demo-app
 - ▼  src/main/java
 - ▼  ch.unibe.scg
 - ▶  App.java
 - ▼  src/test/java
 - ▼  ch.unibe.scg
 - ▶  AppTest.java
 -  pom.xml

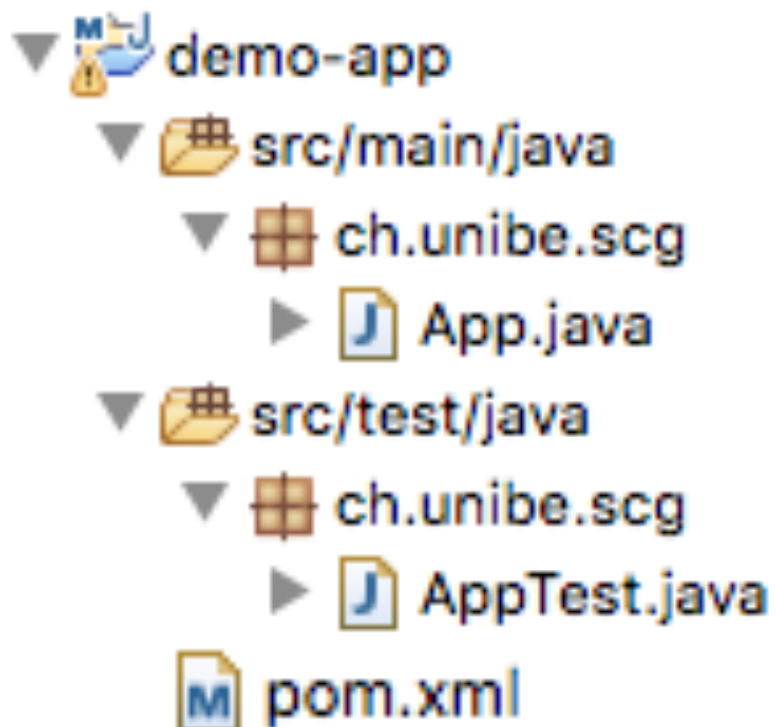


```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"
  <modelVersion>4.0.0</modelVersion>

  <groupId>ch.unibe.scg</groupId>
  <artifactId>demo-app</artifactId>
  <packaging>jar</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>demo-app</name>
  <url>http://maven.apache.org</url>

  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>3.8.1</version>
      <scope>test</scope>
    </dependency>
  </dependencies>

</project>
```



Project
Description

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"
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```

```
  <groupId>ch.unibe.scg</groupId>
  <artifactId>demo-app</artifactId>
  <packaging>jar</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>demo-app</name>
  <url>http://maven.apache.org</url>
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Dependencies

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  <dependencies>
    <dependency>
      <groupId>junit</groupId>
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      <version>3.8.1</version>
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    </dependency>
  </dependencies>
```

```
</project>
```

Maven Phases

mvn compile (compiles the project)

mvn test (runs the test cases)

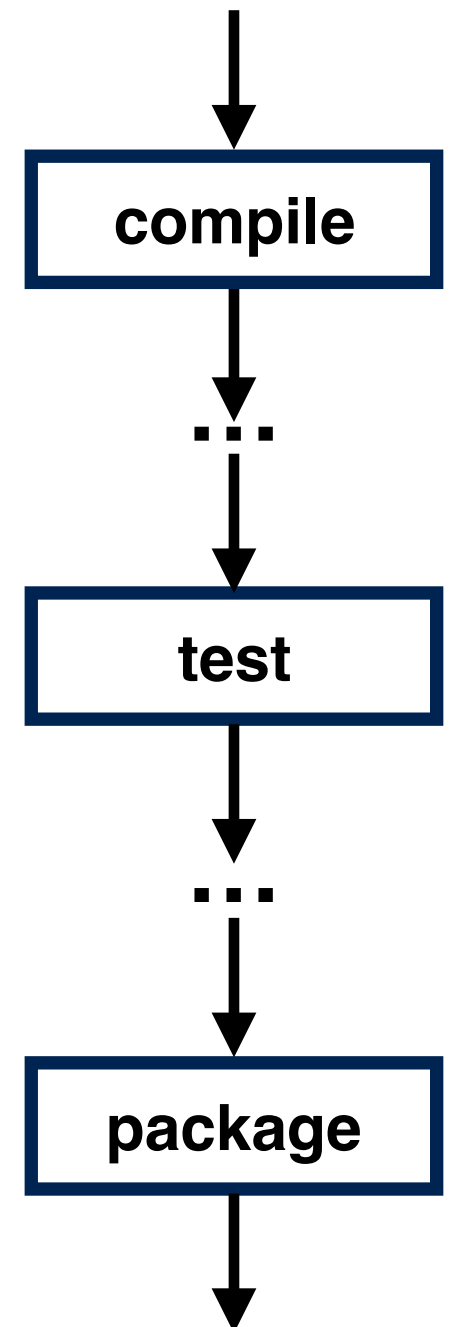
mvn package (creates a JAR or WAR file)

Maven Phases

mvn compile (compiles the project)

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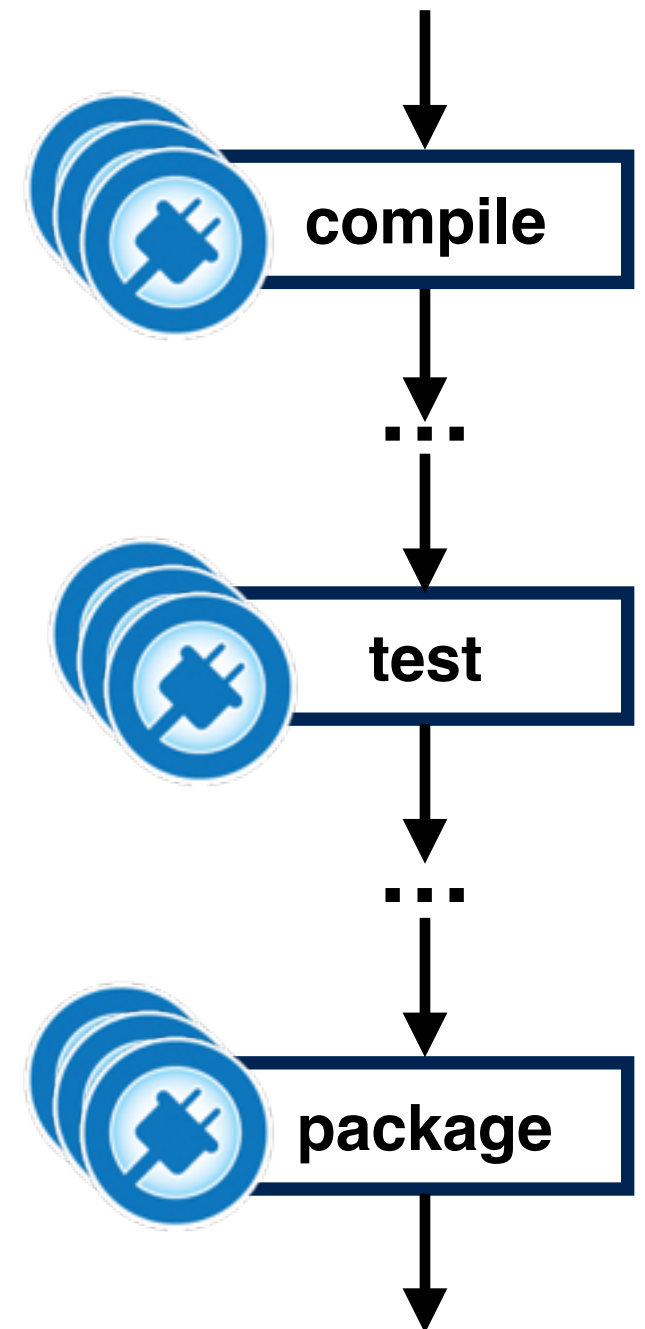


Maven Phases

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Project Description

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<project xmlns="http://maven.apache.org"
  xsi:schemaLocation="http://maven.apac
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```

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<groupId>ch.unibe.scg</groupId>
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<packaging>jar</packaging>
<version>1.0-SNAPSHOT</version>
<name>demo-app</name>
<url>http://maven.apache.org</url>
```

Dependencies

```
<dependencies>
  <dependency>
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>3.8.1</version>
    <scope>test</scope>
  </dependency>
</dependencies>
```

Plugins

```
</project>
```



```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-compiler-plugin</artifactId>
      <version>3.5.1</version>
      <configuration>
        <source>1.8</source>
        <target>1.8</target>
      </configuration>
    </plugin>
  </plugins>
</build>
```


Archetype

Archetype

Create



Project

POM.xml

Project Structure

Archetype

Create

Project

POM.xml

Project Structure

Retrieve Dependencies



Archetype

Create

Project

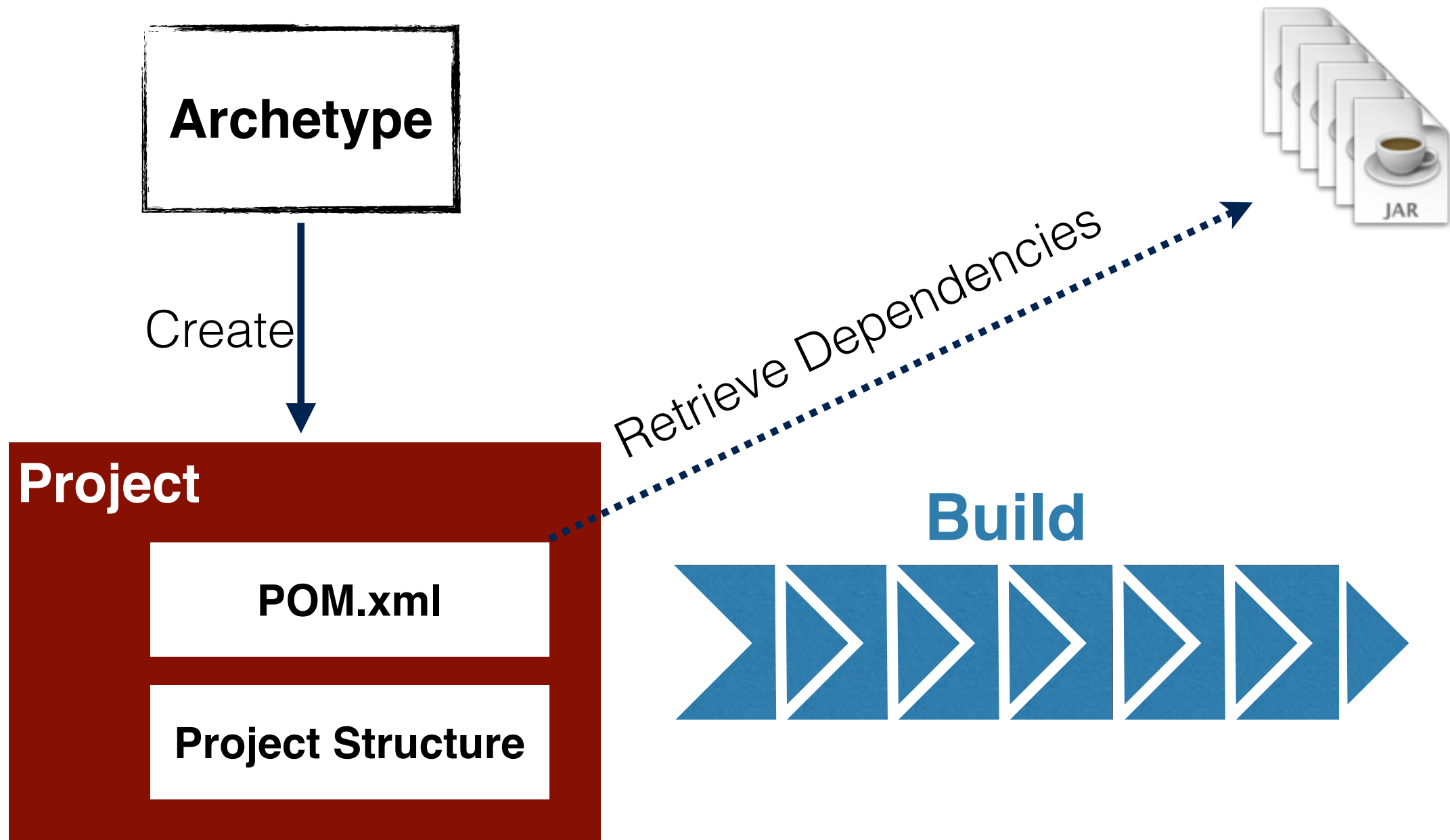
POM.xml

Project Structure

Retrieve Dependencies

Build

JAR



Archetype

Create

Project

POM.xml

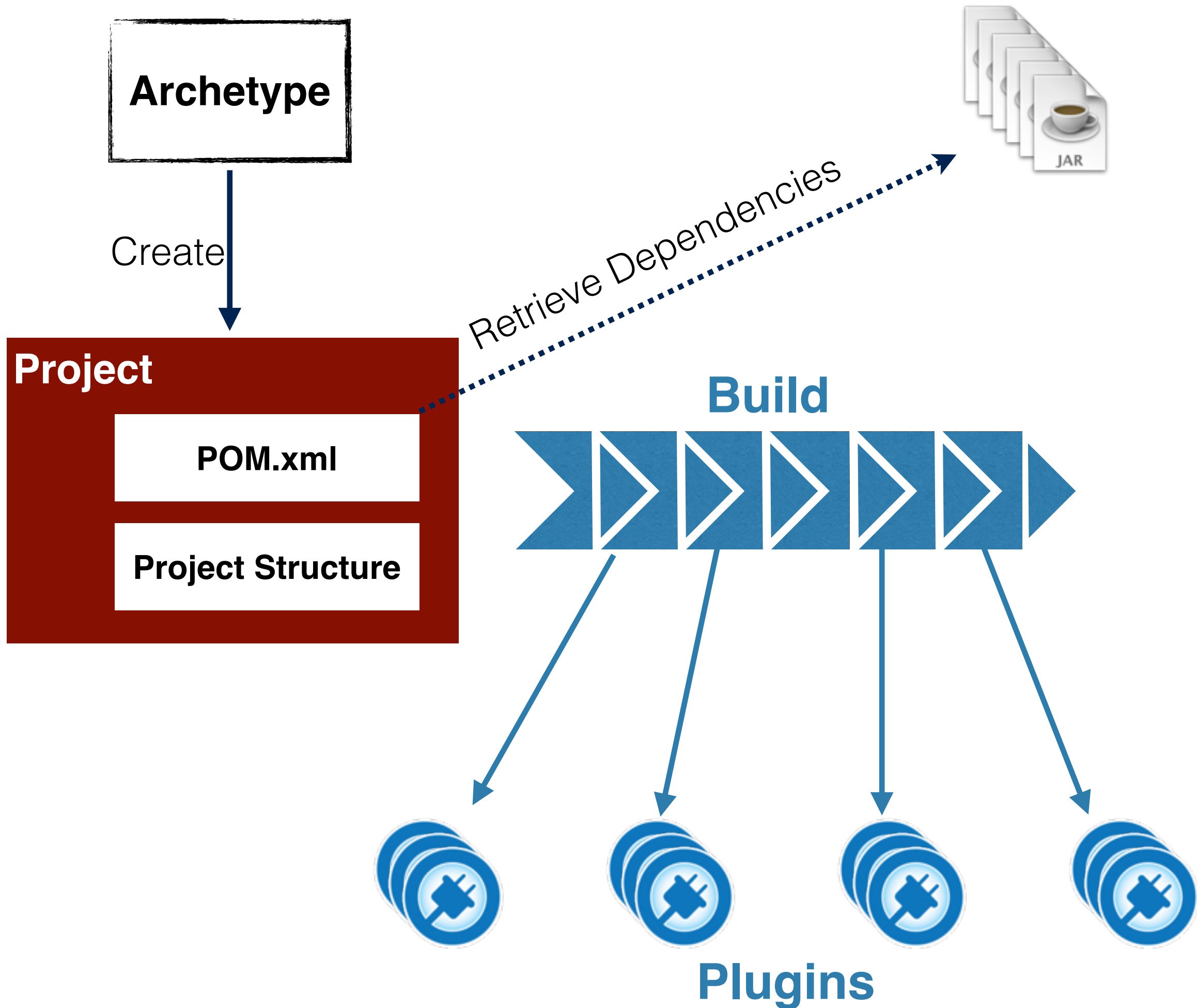
Project Structure

Retrieve Dependencies

Build

JAR

Plugins



Archetype

Create

Project

POM.xml

Project Structure

Retrieve Dependencies

Build

Artifact

JAR

Plugins



Useful Links

Create a maven project:

<http://maven.apache.org/archetype/maven-archetype-plugin/usage.html>

Maven in 5 mins:

<http://maven.apache.org/guides/getting-started/maven-in-five-minutes.html>

Understand the build process:

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

A Good Tutorial:

<https://www.youtube.com/playlist?list=PL92E89440B7BFD0F6>