Maven is a widely-used build automation and project management tool for Java projects.

mvn archetype:generate -DgroupId=com.company -DartifactId=my-project -DarchetypeArtifactId=maven-archetype-quickstart -DinteractiveMode=false

mvn compile

mvn test

mvn package 🡪 Package the project

mvn install 🡪 Install the project locally

mvn clean

mvn deploy

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

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>com.company</groupId>

<artifactId>my-project</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<!-- Add your project dependencies here -->

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<!-- Add build plugins here if needed -->

</plugins>

</build>

</project>

In Maven, projects can have a parent-child relationship where a child project inherits configuration and dependencies from a parent project.

Parent

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

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>com.company</groupId>

<artifactId>parent-project</artifactId>

<version>1.0-SNAPSHOT</version>

<packaging>pom</packaging>

<modules>

<module>child-project</module>

</modules>

<dependencyManagement>

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

<!-- Add other common dependencies here -->

</dependencies>

</dependencyManagement>

<build>

<pluginManagement>

<plugins>

<!-- Add common plugins here -->

</plugins>

</pluginManagement>

</build>

</project>

Child

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

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>

<parent>

<groupId>com.company</groupId>

<artifactId>parent-project</artifactId>

<version>1.0-SNAPSHOT</version>

</parent>

<groupId>com.company</groupId>

<artifactId>child-project</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<!-- Child-specific dependencies can be added here -->

</dependencies>

</project>

1. **Parent Project**:

* groupId, artifactId, and version: These coordinates uniquely identify the parent project.
* <packaging>pom</packaging>: Indicates that the project is intended to be a parent (aggregator) project.
* <modules>: Lists the modules (child projects) that are part of this parent project.
* <dependencyManagement>: Defines common dependencies that child projects inherit. This helps in maintaining consistent versions across multiple child projects.
* <pluginManagement>: Defines common plugins that child projects can use.

2. **Child Project**:

* <parent>: Specifies the parent project that the child project inherits from. It includes the groupId, artifactId, and version of the parent project.
* groupId, artifactId, and version: These coordinates uniquely identify the child project.
* <dependencies>: Child-specific dependencies can be added here. They complement the dependencies defined in the parent project.