

# Maven: Java application Build using maven

26 August 2024 15:30

## Lab Practice

### 1. Install Maven : cek the version of maven using mvn -v

```
PS C:\Users\HOME> cd "F:\maven-test\myfirstjava-master"
PS F:\maven-test\myfirstjava-master> mvn -v
Apache Maven 3.8.7 (b89d5959fcde851dcblc8946a785a163f14ele29)
Maven home: C:\ProgramData\chocolatey\lib\maven\apache-maven-3.8.7
Java version: 17.0.6, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-17
Default locale: en_IN, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
PS F:\maven-test\myfirstjava-master>
```

### 2. Change the path of the project.

-Use CD "target Directory "

### 3. Run maven lifecycle command

--> mvn clean

```
PS F:\maven-test\myfirstjava-master> mvn clean
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 48, column 15
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ helloworld ---
[INFO] Deleting F:\maven-test\myfirstjava-master\target
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 1.133 s
[INFO] Finished at: 2024-08-26T15:38:39+05:30
[INFO]
PS F:\maven-test\myfirstjava-master>
```

--> mvn validate

```
PS F:\maven-test\myfirstjava-master> mvn validate
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 4
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 0.191 s
[INFO] Finished at: 2024-08-26T15:39:20+05:30
[INFO]
PS F:\maven-test\myfirstjava-master>
```

## --> mvn compile

```
PS F:\maven-test\myfirstjava-master> mvn compile
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 48, column 15
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.5:prepare-agent (prepare-agent) @ helloworld ---
[INFO] argLine set to -javaagent:C:\\Users\\HOME\\.m2\\repository\\org\\jacoco\\org.jacoco.agent\\0.8.5\\org.jacoco.agent-0.8.5-runtime.jar=destfile=F:\\maven-test\\myfirstjava-master\\target\\jacoco.exec
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ helloworld ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory F:\\maven-test\\myfirstjava-master\\src\\main\\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ helloworld ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 1.880 s
[INFO] Finished at: 2024-08-26T15:41:33+05:30
[INFO]
```

## --> mvn test

```
PS F:\maven-test\myfirstjava-master> mvn test
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 48, column 15
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.5:prepare-agent (prepare-agent) @ helloworld ---
[INFO] argLine set to -javaagent:C:\\Users\\HOME\\.m2\\repository\\org\\jacoco\\org.jacoco.agent\\0.8.5\\org.jacoco.agent-0.8.5-runtime.jar=destfile=F:\\maven-test\\myfirstjava-master\\target\\jacoco.exec
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ helloworld ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory F:\\maven-test\\myfirstjava-master\\src\\main\\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ helloworld ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding Cp1252, i.e. build is platform dependent!
[INFO] Compiling 1 source file to F:\\maven-test\\myfirstjava-master\\target\\classes
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ helloworld ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory F:\\maven-test\\myfirstjava-master\\src\\test\\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ helloworld ---
[INFO] Changes detected - recompiling the module!
```

## --> mvn package

```
PS F:\maven-test\myfirstjava-master> mvn package
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 48, column 15
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.5:prepare-agent (prepare-agent) @ helloworld ---
[INFO] argLine set to -javaagent:C:\\Users\\HOME\\.m2\\repository\\org\\jacoco\\org.jacoco.agent\\0.8.5\\org.jacoco.agent-0.8.5-runtime.jar=destfile=F:\\maven-test\\myfirstjava-master\\target\\jacoco.exec
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ helloworld ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory F:\\maven-test\\myfirstjava-master\\src\\main\\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ helloworld ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
```

```

tests run: 2, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- jacoco-maven-plugin:0.8.5:report (report) @ helloworld ---
[INFO] Loading execution data file F:\maven-test\myfirstjava-master\target\jacoco.exec
[INFO] Analyzed bundle 'Hello world sample web app' with 1 classes
[INFO]
[INFO] --- maven-war-plugin:3.3.1:war (default-war) @ helloworld ---
[INFO] Packaging webapp
[INFO] Assembling webapp [helloworld] in [F:\maven-test\myfirstjava-master\target\helloworld]
[INFO] Processing war project
[INFO] Copying webapp resources [F:\maven-test\myfirstjava-master\src\main\webapp]
[INFO] Building war: F:\maven-test\myfirstjava-master\target\helloworld.war
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 4.911 s
[INFO] Finished at: 2024-08-26T15:43:18+05:30
[INFO]

```

## --> Mvn Deploy

```

PS F:\maven-test\myfirstjava-master> mvn deploy
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for helloworld:helloworld:war:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 48, column 15
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO]
[INFO] -----< helloworld:helloworld >-----
[INFO] Building Hello world sample web app 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.5:prepare-agent (prepare-agent) @ helloworld ---
[INFO] argLine set to -javaagent:C:\\Users\\HOME\\.m2\\repository\\org\\jacoco\\org.jacoco.agent\\0.8.5\\org.jacoco.agent-0.8.5-runtime.jar=destfile=F:\\maven-test\\myfirstjava-master\\target\\jacoco.exec
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ helloworld ---

```

```

[INFO] Building war: F:\maven-test\myfirstjava-master\target\helloworld.war
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ helloworld ---
[INFO] Installing F:\maven-test\myfirstjava-master\target\helloworld.war to C:\Users\HOME\.m2\repository\helloworld\helloworld\1.0-SNAPSHOT\helloworld-1.0-SNAPSHOT.war
[INFO] Installing F:\maven-test\myfirstjava-master\pom.xml to C:\Users\HOME\.m2\repository\helloworld\helloworld\1.0-SNAPSHOT\helloworld-1.0-SNAPSHOT.pom
[INFO]
[INFO] --- maven-deploy-plugin:2.7:deploy (default-deploy) @ helloworld ---
[INFO] Uploading to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/maven-metadata.xml
[INFO] Downloaded from corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/maven-metadata.xml (764 B at 4.5 kB/s)
[INFO] Uploading to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/helloworld-1.0-20240826.101714-3.war
[INFO] Downloaded to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/helloworld-1.0-20240826.101714-3.war (3.9 MB at 32 MB/s)
[INFO] Uploading to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/helloworld-1.0-20240826.101714-3.pom
[INFO] Downloaded to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/helloworld-1.0-20240826.101714-3.pom (2.3 kB at 196 kB/s)
[INFO] Uploading from corpl: file:///home/myfolder/.m2/helloworld/helloworld/maven-metadata.xml
[INFO] Downloaded from corpl: file:///home/myfolder/.m2/helloworld/helloworld/maven-metadata.xml (278 B at 5.9 kB/s)
[INFO] Uploading to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/maven-metadata.xml
[INFO] Downloaded to corpl: file:///home/myfolder/.m2/helloworld/helloworld/1.0-SNAPSHOT/maven-metadata.xml (764 B at 42 kB/s)
[INFO] Uploading to corpl: file:///home/myfolder/.m2/helloworld/helloworld/maven-metadata.xml
[INFO] Downloaded to corpl: file:///home/myfolder/.m2/helloworld/helloworld/maven-metadata.xml (278 B at 19 kB/s)
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 5.770 s
[INFO] Finished at: 2024-08-26T15:47:20+05:30
[INFO]

```