

# MAVEN

```
C:\Windows\System32\cmd.exe X + v
Microsoft Windows [Version 10.0.22621.1105]
(c) Microsoft Corporation. All rights reserved.

C:\java\apache-maven-3.9.0\bin>mvn -version
Apache Maven 3.9.0 (9b58d2bad23a66be161c4664ef21ce219c2c8584)
Maven home: C:\java\apache-maven-3.9.0
Java version: 1.8.0_361, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jre1.8.0_361
Default locale: en_IN, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"

C:\java\apache-maven-3.9.0\bin>md maven1

C:\java\apache-maven-3.9.0\bin>cd maven1

C:\java\apache-maven-3.9.0\bin\maven1>path=%path%;C:\java\apache-maven-3.9.0\bin

C:\java\apache-maven-3.9.0\bin\maven1>path
PATH=C:\oraclexe\app\oracle\product\11.2.0\server\bin;C:\Program Files (x86)\Common Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\Program Files\Java\jdk1.8.0_351\bin;C:\Program Files\MySQL\MySQL Server 8.0\bin;C:\Program Files\Git\cmd;C:\Windows\System32\cmd.exe;C:\Program Files\MySQL\MySQL Shell 8.0\bin;C:\Users\akkis\AppData\Local\Microsoft\WindowsApps;C:\Users\akkis\AppData\Local\Programs\Microsoft VS Code\bin;C:\java\apache-maven-3.9.0\bin
```

```
C:\java\apache-maven-3.9.0\bin\maven1>mvn archetype:generate
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.2.0/maven-clean-plugin-3.2.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.2.0/maven-clean-plugin-3.2.0.pom (5.3 kB at 3.8 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/35/maven-plugins-35.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/35/maven-plugins-35.pom (9.9 kB at 40 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/35/maven-parent-35.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/35/maven-parent-35.pom (45 kB at 114 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/25/apache-25.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/apache/25/apache-25.pom (21 kB at 93 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/3.1.0/maven-install-plugin-3.1.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/3.1.0/maven-install-plugin-3.1.0.pom (7.8 kB at 38 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/3.1.0/maven-install-plugin-3.1.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/3.1.0/maven-install-plugin-3.1.0.jar (30 kB at 131 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-deploy-plugin/3.0.0/maven-deploy-plugin-3.0.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-deploy-plugin/3.0.0/maven-deploy-plugin-3.0.0.pom (8.5 kB at 41 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-site-plugin/3.12.1/maven-site-plugin-3.12.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-site-plugin/3.12.1/maven-site-plugin-3.12.1.pom (20 kB at 88 kB/s)
```

```
3226: remote -> za.co.absa.hyperdrive:component-archetype_2.12 (-)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): 2007:
Choose org.apache.maven.archetypes:maven-archetype-quickstart version:
1: 1.0-alpha-1
2: 1.0-alpha-2
3: 1.0-alpha-3
4: 1.0-alpha-4
5: 1.0
6: 1.1
7: 1.3
8: 1.4
Choose a number: 8:
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.4/maven-archetype-quickstart-1.4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.4/maven-archetype-quickstart-1.4.pom (1.6 kB at 8.3 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-bundles/1.4/maven-archetype-bundles-1.4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-bundles/1.4/maven-archetype-bundles-1.4.pom (4.5 kB at 24 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.4/maven-archetype-quickstart-1.4.jar
```

```

Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.4/maven-archetype-quickstart-1.4.jar (7.1 kB at 38 kB/s)
Define value for property 'groupId': wissen
Define value for property 'artifactId': java
Define value for property 'version' 1.0-SNAPSHOT: :
Define value for property 'package' wissen: :
Confirm properties configuration:
groupId: wissen
artifactId: java
version: 1.0-SNAPSHOT
package: wissen
Y: :
[INFO] -----
[INFO] Using following parameters for creating project from Archetype: maven-archetype-quickstart:1.4
[INFO] -----
[INFO] Parameter: groupId, Value: wissen
[INFO] Parameter: artifactId, Value: java
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: package, Value: wissen
[INFO] Parameter: packageInPathFormat, Value: wissen
[INFO] Parameter: package, Value: wissen
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: groupId, Value: wissen
[INFO] Parameter: artifactId, Value: java
[INFO] Project created from Archetype in dir: C:\java\apache-maven-3.9.0\bin\maven1\java
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 09:06 min
[INFO] Finished at: 2023-02-14T16:14:26+05:30
[INFO] -----
C:\java\apache-maven-3.9.0\bin\maven1>

```

```

C:\java\apache-maven-3.9.0\bin\maven1>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1

14-02-2023  16:14    <DIR>          .
14-02-2023  15:50    <DIR>          ..
14-02-2023  16:14    <DIR>          java
               0 File(s)              0 bytes
               3 Dir(s)  31,562,346,496 bytes free

C:\java\apache-maven-3.9.0\bin\maven1>cd java

C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  16:14    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14                2,713 pom.xml
14-02-2023  16:14    <DIR>          src
               1 File(s)          2,713 bytes
               3 Dir(s)  31,561,146,368 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java>cd src

C:\java\apache-maven-3.9.0\bin\maven1\java\src>cd main

C:\java\apache-maven-3.9.0\bin\maven1\java\src\main>cd java

C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\java>cd wissen

```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\java\wissen>type App.java
package wissen;
```

```
/**
 * Hello world!
 *
 */
public class App
{
    public static void main( String[] args )
    {
        System.out.println( "Hello World!" );
    }
}
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\java\wissen>|
```

```
C:\Windows\System32\cmd.e  X  +  v
Microsoft Windows [Version 10.0.22621.1105]
(c) Microsoft Corporation. All rights reserved.

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 1.142 s
[INFO] Finished at: 2023-02-14T17:03:04+05:30
[INFO] -----
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  16:42    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14             2,713 pom.xml
14-02-2023  16:14    <DIR>          src
14-02-2023  16:42    <DIR>          target
               1 File(s)            2,713 bytes
               4 Dir(s)  31,569,506,304 bytes free
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>pom.xml
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>|
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  16:42    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14                2,713 pom.xml
14-02-2023  16:14    <DIR>          src
14-02-2023  16:42    <DIR>          target
                1 File(s)                2,713 bytes
                4 Dir(s) 29,919,629,312 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java>cd target

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd classes

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes

14-02-2023  17:03    <DIR>          .
14-02-2023  16:42    <DIR>          ..
14-02-2023  17:03    <DIR>          wissen
                0 File(s)                 0 bytes
                3 Dir(s) 29,919,514,624 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>cd wissen
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes\wissen>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes\wissen

14-02-2023  17:03    <DIR>          .
14-02-2023  17:03    <DIR>          ..
14-02-2023  17:03                527 App.class
                1 File(s)                527 bytes
                2 Dir(s) 29,919,449,088 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes\wissen>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>java wissen.App
Hello World!

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>|
```

```

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time:  1.210 s
[INFO] Finished at: 2023-02-14T17:19:47+05:30
[INFO]
-----

C:\java\apache-maven-3.9.0\bin\maven1\java>cd target

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd classes

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>java wissen.App
Namste Maven

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>|

```

```

C:\Windows\System32\cmd.e  X  +  v

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn validate
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time:  0.110 s
[INFO] Finished at: 2023-02-14T18:58:59+05:30
[INFO]
-----

C:\java\apache-maven-3.9.0\bin\maven1\java>cd src

C:\java\apache-maven-3.9.0\bin\maven1\java\src>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\src

14-02-2023  16:14    <DIR>          .
14-02-2023  16:42    <DIR>          ..
14-02-2023  16:14    <DIR>          main
14-02-2023  16:14    <DIR>          test
               0 File(s)                0 bytes
               4 Dir(s)  30,072,131,584 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\src>cd test

```

```

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test>cd java

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java

14-02-2023  16:14    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14    <DIR>          wissen
                0 File(s)                0 bytes
                3 Dir(s)  30,072,975,360 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java>cd wissen

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java\wissen>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java\wissen

14-02-2023  16:14    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14                298 AppTest.java
                1 File(s)              298 bytes
                2 Dir(s)  30,074,703,872 bytes free

```

```

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java\wissen>type AppTest.java
package wissen;

import static org.junit.Assert.assertTrue;

import org.junit.Test;

/**
 * Unit test for simple App.
 */
public class AppTest
{
    /**
     * Rigorous Test :-)
     */
    @Test
    public void shouldAnswerWithTrue()
    {
        assertTrue( true );
    }
}

C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\java\wissen>|

```

```

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- resources:3.0.2:testResources (default-testResources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\resources
[INFO]
[INFO] --- compiler:3.8.0:testCompile (default-testCompile) @ java ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- surefire:2.22.1:test (default-test) @ java ---
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running wissen.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.04 s - in wissen.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  2.220 s
[INFO] Finished at: 2023-02-14T22:12:29+05:30
[INFO] -----
C:\java\apache-maven-3.9.0\bin\maven1\java>

```

```

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-jar-plugin/3.0.2/maven-jar-plugin-3.0.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-jar-plugin/3.0.2/maven-jar-plugin-3.0.2.pom (6.2 kB at 6.2 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-jar-plugin/3.0.2/maven-jar-plugin-3.0.2.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-jar-plugin/3.0.2/maven-jar-plugin-3.0.2.jar (27 kB at 114 kB/s)
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- resources:3.0.2:testResources (default-testResources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\resources
[INFO]
[INFO] --- compiler:3.8.0:testCompile (default-testCompile) @ java ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- surefire:2.22.1:test (default-test) @ java ---
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running wissen.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.015 s - in wissen.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- jar:3.0.2:jar (default-jar) @ java ---
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-archiver/3.1.1/maven-archiver-3.1.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-archiver/3.1.1/maven-archiver-3.1.1.pom (4.3 kB at 19 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.pom

```

```
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.pom (4.6 kB at 11 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.3/plexus-archiver-3.3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.3/plexus-archiver-3.3.pom (5.3 kB at 27 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/3.2/plexus-3.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/3.2/plexus-3.2.pom (19 kB at 59 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-io/2.7.1/plexus-io-2.7.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-io/2.7.1/plexus-io-2.7.1.pom (4.9 kB at 18 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.2/commons-io-2.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.2/commons-io-2.2.pom (11 kB at 42 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-parent/24/commons-parent-24.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-parent/24/commons-parent-24.pom (47 kB at 139 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.11/commons-compress-1.11.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.11/commons-compress-1.11.pom (13 kB at 58 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/tukaani/xz/1.5/xz-1.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/tukaani/xz/1.5/xz-1.5.pom (1.9 kB at 18 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.4/plexus-archiver-3.4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.4/plexus-archiver-3.4.pom (5.3 kB at 25 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.jar (154 kB at 146 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.11/commons-compress-1.11.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.11/commons-compress-1.11.jar (426 kB at 368 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.4/plexus-archiver-3.4.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/3.4/plexus-archiver-3.4.jar (187 kB at 115 kB/s)
[INFO] Building jar: C:\java\apache-maven-3.9.0\bin\maven1\java\target\java-1.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 8.466 s
[INFO] Finished at: 2023-02-14T22:20:49+05:30
[INFO]
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>cd target

C:\java\apache-maven-3.9.0\bin\maven1\java\target>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target

14-02-2023  22:20    <DIR>          .
14-02-2023  16:42    <DIR>          ..
14-02-2023  17:03    <DIR>          classes
14-02-2023  16:42    <DIR>          generated-sources
14-02-2023  22:11    <DIR>          generated-test-sources
14-02-2023  22:20             2,402 java-1.0-SNAPSHOT.jar
14-02-2023  22:20    <DIR>          maven-archiver
14-02-2023  16:42    <DIR>          maven-status
14-02-2023  22:11    <DIR>          surefire-reports
14-02-2023  22:11    <DIR>          test-classes
               1 File(s)                2,402 bytes
               9 Dir(s)  30,611,693,568 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target>md jar

C:\java\apache-maven-3.9.0\bin\maven1\java\target>copy java-1.0-SNAPSHOT.jar C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar
1 file(s) copied.

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd jar

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar

14-02-2023  22:31    <DIR>          .
14-02-2023  22:30    <DIR>          ..
14-02-2023  22:20             2,402 java-1.0-SNAPSHOT.jar
               1 File(s)                2,402 bytes
               2 Dir(s)  30,606,311,424 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>
```



```
C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>jar -xvf java-1.0-SNAPSHOT.jar
inflated: META-INF/MANIFEST.MF
created: META-INF/
created: wissen/
created: META-INF/maven/
created: META-INF/maven/wissen/
created: META-INF/maven/wissen/java/
inflated: wissen/App.class
inflated: META-INF/maven/wissen/java/pom.xml
inflated: META-INF/maven/wissen/java/pom.properties
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>java wissen.App
Namste Maven
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>cd..
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd..
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>java wissen.App
Namste Maven

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>cd..

C:\java\apache-maven-3.9.0\bin\maven1\java\target>copy java-1.0-SNAPSHOT.jar C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar
1 file(s) copied.

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd jar

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar

14-02-2023  22:48    <DIR>          .
14-02-2023  22:30    <DIR>          ..
14-02-2023  22:40             2,401 java-1.0-SNAPSHOT.jar
               1 File(s)                2,401 bytes
               2 Dir(s)  29,839,040,512 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>jar -xvf java-1.0-SNAPSHOT.jar
inflated: META-INF/MANIFEST.MF
created: META-INF/
created: wissen/
created: META-INF/maven/
created: META-INF/maven/wissen/
created: META-INF/maven/wissen/java/
inflated: wissen/App.class
inflated: META-INF/maven/wissen/java/pom.xml
inflated: META-INF/maven/wissen/java/pom.properties

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>java wissen.App
Hii Wissen

C:\java\apache-maven-3.9.0\bin\maven1\java\target\jar>|
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java\target>jar>cd..
C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd..
C:\java\apache-maven-3.9.0\bin\maven1\java>mvn install
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO] from pom.xml
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plugin-2.5.2.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plugin-2.5.2.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plugin-2.5.2.pom (6.4 kB at 6.4 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/25/maven-plugins-25.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/25/maven-plugins-25.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/25/maven-plugins-25.pom (9.6 kB at 35 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/24/maven-parent-24.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/24/maven-parent-24.pom (37 kB at 131 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/14/apache-14.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/14/apache-14.pom (15 kB at 63 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plugin-2.5.2.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plugin-2.5.2.jar (33 kB at 151 kB/s)
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes
[INFO]
[INFO] --- resources:3.0.2:testResources (default-testResources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\test\resources
[INFO]
[INFO] --- compiler:3.8.0:testCompile (default-testCompile) @ java ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- surefire:2.22.1:test (default-test) @ java ---
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running wissen.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.03 s - in wissen.AppTest
```

```
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- jar:3.0.2:jar (default-jar) @ java ---
[INFO] Building jar: C:\java\apache-maven-3.9.0\bin\maven1\java\target\java-1.0-SNAPSHOT.jar
[INFO]
[INFO] --- install:2.5.2:install (default-install) @ java ---
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/junit/junit/3.8.1/junit-3.8.1.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/junit/junit/3.8.1/junit-3.8.1.pom (998 B at 3.8 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-codec/1.6/commons-codec-1.6.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-codec/1.6/commons-codec-1.6.pom (11 kB at 56 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-parent/22/commons-parent-22.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-parent/22/commons-parent-22.pom (42 kB at 166 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.pom (4.0 kB at 17 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.15/plexus-utils-3.0.15.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.15/plexus-utils-3.0.15.pom (3.1 kB at 16 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/classworlds/classworlds/1.1-alpha-2/classworlds-1.1-alpha-2.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.15/plexus-utils-3.0.15.jar
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.jar
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-codec/1.6/commons-codec-1.6.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-codec/1.6/commons-codec-1.6.jar (233 kB at 193 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/0.4/maven-shared-utils-0.4.jar (155 kB at 95 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.15/plexus-utils-3.0.15.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.15/plexus-utils-3.0.15.jar (239 kB at 193 kB/s)
[INFO] Installing C:\java\apache-maven-3.9.0\bin\maven1\java\target\java-1.0-SNAPSHOT.jar to C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT\java-1.0-SNAPSHOT.jar
[INFO] Installing C:\java\apache-maven-3.9.0\bin\maven1\java\pom.xml to C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT\java-1.0-SNAPSHOT.pom
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO]
[INFO] Total time: 9.304 s
[INFO] Finished at: 2023-02-14T22:57:14+05:30
[INFO]
C:\java\apache-maven-3.9.0\bin\maven1\java>
```

```

C:\java\apache-maven-3.9.0\bin\maven1\java>cd\

C:\>cd C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT

14-02-2023  22:57      <DIR>          .
14-02-2023  22:57      <DIR>          ..
14-02-2023  22:57                2,431 java-1.0-SNAPSHOT.jar
14-02-2023  16:14                2,713 java-1.0-SNAPSHOT.pom
14-02-2023  22:57                690 maven-metadata-local.xml
14-02-2023  22:57                192 _remote.repositories
           4 File(s)                6,026 bytes
           2 Dir(s)  29,837,864,960 bytes free

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>dir *.jar
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT

14-02-2023  22:57                2,431 java-1.0-SNAPSHOT.jar
           1 File(s)                2,431 bytes
           0 Dir(s)  29,838,528,512 bytes free

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>jar -xvf java-1.0-SNAPSHOT.jar
inflated: META-INF/MANIFEST.MF
  created: META-INF/
  created: wissen/
  created: META-INF/maven/
  created: META-INF/maven/wissen/
  created: META-INF/maven/wissen/java/
inflated: wissen/App.class
inflated: META-INF/maven/wissen/java/pom.xml
inflated: META-INF/maven/wissen/java/pom.properties

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>java wissen.App
mvn install copies the jar file in local repository!

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>|

```

```

C:\Users\akkis\.m2\repository\wissen\java\1.0-SNAPSHOT>cd\

C:\>cd C:\java\apache-maven-3.9.0\bin\maven1\java

C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  16:42      <DIR>          .
14-02-2023  16:14      <DIR>          ..
14-02-2023  16:14                2,713 pom.xml
14-02-2023  16:14      <DIR>          src
14-02-2023  22:30      <DIR>          target
           1 File(s)                2,713 bytes
           4 Dir(s)  29,836,623,872 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java>mvn clean
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.pom (5.2 kB at 4.3 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/31/maven-plugins-31.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/31/maven-plugins-31.pom (10 kB at 47 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.jar (30 kB at 108 kB/s)
[INFO]
[INFO] --- clean:3.1.0:clean (default-clean) @ java ---
[INFO] Deleting C:\java\apache-maven-3.9.0\bin\maven1\java\target
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 2.677 s
[INFO] Finished at: 2023-02-14T23:07:25+05:30
[INFO]

```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  23:07    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14                2,713 pom.xml
14-02-2023  16:14    <DIR>          src
                   1 File(s)                2,713 bytes
                   3 Dir(s)  29,836,283,904 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java>
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< wissen:java >-----
[INFO] Building java 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- resources:3.0.2:resources (default-resources) @ java ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\java\apache-maven-3.9.0\bin\maven1\java\src\main\resources
[INFO]
[INFO] --- compiler:3.8.0:compile (default-compile) @ java ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time:  1.355 s
[INFO] Finished at: 2023-02-14T23:11:26+05:30
[INFO]
[INFO] -----
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

Directory of C:\java\apache-maven-3.9.0\bin\maven1\java

14-02-2023  23:11    <DIR>          .
14-02-2023  16:14    <DIR>          ..
14-02-2023  16:14                2,713 pom.xml
14-02-2023  16:14    <DIR>          src
14-02-2023  23:11    <DIR>          target
                   1 File(s)                2,713 bytes
                   4 Dir(s)  29,831,225,344 bytes free
```

```
C:\java\apache-maven-3.9.0\bin\maven1\java>cd target

C:\java\apache-maven-3.9.0\bin\maven1\java\target>cd classes

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>dir
Volume in drive C is Windows
Volume Serial Number is 1287-A014

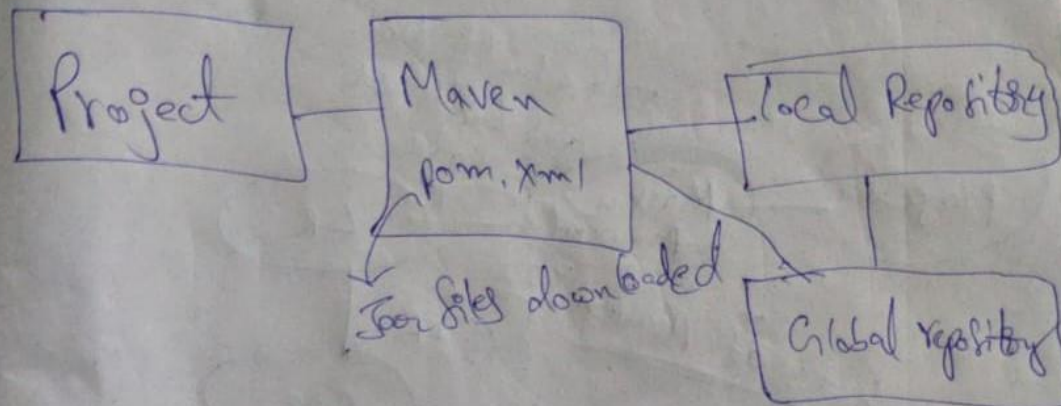
Directory of C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes

14-02-2023  23:11    <DIR>          .
14-02-2023  23:11    <DIR>          ..
14-02-2023  23:11    <DIR>          wissen
                   0 File(s)                0 bytes
                   3 Dir(s)  29,831,622,656 bytes free

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>java wissen.App
mvn install copies the jar file in local repository!

C:\java\apache-maven-3.9.0\bin\maven1\java\target\classes>
```

## Architecture of Maven



Maven is a build tool

javac.exe - bin directory of java -> Compiler program

java.exe - execute the Java program

Maven - building your prog, downloading the jar files.

1) will download the jar files which are required

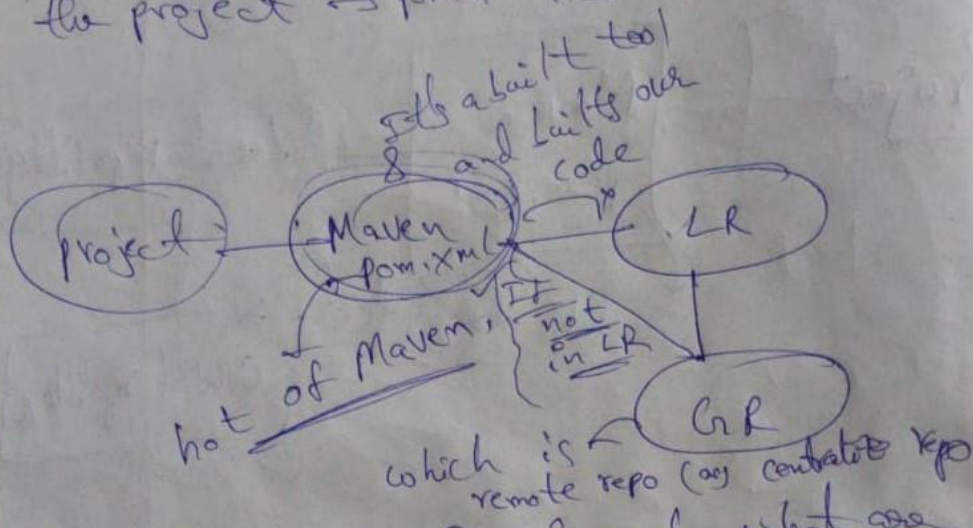
2) make a build

Note -  
mvn clean will delete the target directory.



In Maven

Specify what are the jar files I need  
the project  $\rightarrow$  pom.xml  $\rightarrow$  dependencies section.



pom.xml - we can specify what are the jar files to be downloaded.

- 1) get the code
- 2) build the code & make the final jar/war file.
- 3) download the required jar files.
- 4) run unit test cases
- 5) deploy the jar file in a specific location.
- 6) specify which jdk do you want to use.

Script @ built tool - maven

## Setting path

path = % path % ; directory of bin

means Current path is equal to my existing path.

② group id : Company Name - within the project

artifact id : project Name - Java  
1.4

version : 1.0

description

- within.

package name;

and after that it will get into

form. Xml

mvn install - validate + Comp. + Unit test + mvn package +  
places the jar file in local repo.

mvn Compile - mvn validate + Compilation

① mvn test - mvn validate + run unit test cases  
it is in test cases  
create directory + structure. mvn Compile.

② mvn package - mvn validate + mvn Compile + mvn test

check whether it is in stands of maven or not + jar file will place at target dir.