



# **Experiment No. 1.3**

Student Name: Rohit Kumar UID: 22MCC20172

Branch: MCA CC&DEVOPS
Semester: 3<sup>RD</sup>
Section/Group: MCD-1/ Grp A
Date of Performance: 01/09/23

**Subject Name: DevOps Process Automation Lab Subject Code: 22CAP-745** 

### 1. Aim/Overview of the practical:

Install and configure Apache Maven

Verify that Maven has been installed correctly on your system

Create a sample project using Maven. Create a new Maven project with the following specifications:

Group ID: Rohit

• Artifact ID: Project

• Version: **1.0** 

Packaging: DefaultJava Version: 17.0.8

Implementing a Maven repository

**2.** Code for practical: Step 1: Install java and verify its installation using java –version command.

```
C:\Windows\system32\cmd.exe
```

```
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>java --version
java 17.0.8 2023-07-18 LTS
Java(TM) SE Runtime Environment (build 17.0.8+9-LTS-211)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.8+9-LTS-211, mixed mode, sharing)
```

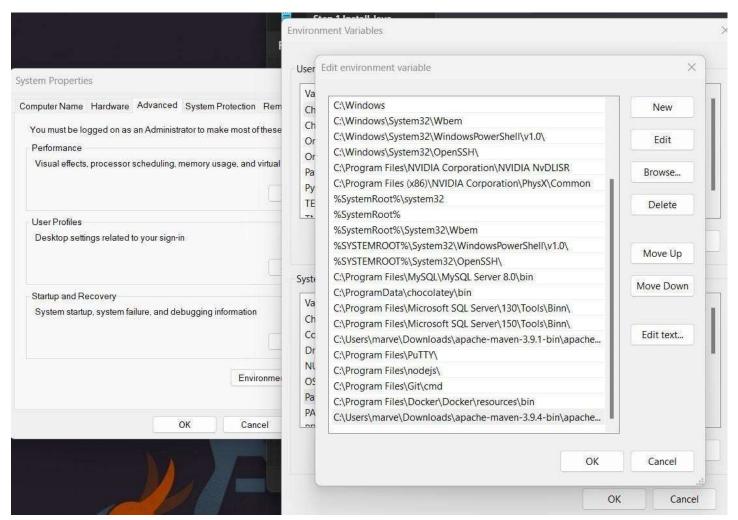
Step 2: Download and Install Maven





## https://maven.apache.org/download.cgi

# After fetching maven set Environment Variable



Step 3: Verify that Maven has been installed correctly on your system mvn –version.

Step 4: run mvn archetype:generate for downloading the binary of maven.





## Step 4: Create a sample project using Maven.

```
| State | Stat
```

```
### Accosoft Mindows (Version 18.0.19085.3488]

(c) Microsoft Corporation. All rights reserved.

(subscribing Apache.asword.39.4 Whitmown archetype:generate

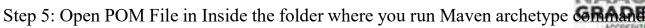
(INFO) Scanning for projects...

[INFO] Scanning for projects....

[INFO] Scanning for projects....

[INFO] Scanning for projects....

[INFO] Scanning for pro
```



C:\Users\admin\apache-maven-3.9.4\bin\sampleproject\pom.xml

<groupId>cloud.altemista.fwk.microservices</groupId>

<artifactId>cloud-altemistafwk-core-microservices-bus-conf</artifactId>

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

🎒 C:\Users\admin\apache-m... 🗡

<dependencies> <dependency>

</project>

</dependency> </dependencies>



```
Step 6: Run mvn Clean Command for cleans the project and removes all files generated by
the previous build.
```

```
C:\Windows\System32\cmd.exe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             币
        \Users\admin\apache-maven-3.9.4\bin>cd Project
      :\Users\admin\apache-maven-3.9.4\bin\Project>mvn clean install
                                     Scanning for projects...
                                     Building Project rohit
                                                   from pom.xml
                           j ------
oading 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
  townloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin3.1.0/maven-clean-plugin-3.1.0.pom
townloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugin/3.1.0/maven-clean-plugin-3.1.0.pom
townloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/31/maven-plugins-31.pom
townloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/31/maven-plugins-31.pom (10 kB at 231 kB/s)
townloading 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
townloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.0.2jar (30 kB at 435 kB/s)
townloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/3.0.2/maven-resources-plugin-3.0.2.pom
townloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/3.0.2/maven-resources-plugin-3.0.2.pom
tow
 Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/30/maven-plugins-30.pom
Obwnloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/30/maven-plugins-30.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/3.0.2/maven-resources-plugin-3.0.2.jar
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/3.0.2/maven-resources-plugin-3.0.2.jar
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-compiler-plugin/3.8.0/maven-compiler-plugin-3.8.0.pom
Obwnloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/32/maven-plugins-32.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/32/maven-plugins-32.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/32/maven-plugins-32.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/32/maven-parent-32.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/32/maven-parent-32.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/20/apache-20.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/20/apache-20.pom
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-compiler-plugin/3.8.0/maven-compiler-plugin-3.8.0.jar
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-compiler-plugin/3.8.0/maven-compiler-plugin-3.8.0.jar
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-compiler-plugin/3.8.0/maven-compiler-plugin-3.8.0.jar
Obwnloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-comp
     ownloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-surefire-plugin/2.22.1/maven-surefire-plugin-2.22.1.pom
ownloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-surefire-plugin/2.22.1/maven-surefire-plugin-2.22.1.pom
(5.0 kB at 208 kB/s
    ownloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire/2.22.1/surefire-2.22.1.pom
ownloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire/2.22.1/surefire-2.22.1.pom (26 kB at 574 kB/s)
  bownloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire/2.22.1/surefire-2.22.1.pom (26 kB at 574 kB/s)
bownloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-surefire-plugin/2.22.1/maven-surefire-plugin-2.22.1.jar
bownloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-surefire-plugin/2.22.1/maven-surefire-plugin-2.22.1.jar (41 kB at 1.3 MB/s)
bownloading 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
bownloading 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 221 kB/s)
bownloading 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
bownloading 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
bownloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/maven-install-plug
```





#### Step 7: Now run mvn test-compile command for compiles source code of the project.

```
Commonating from central: https://repo.maven.apache.org/maven2/org/sonatype/oss/oss-parent19/oss-parent9.pom (6.6 kB at 104 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/sonatype/oss/oss-parent19/oss-parent9.pom (6.6 kB at 104 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/sonatype/oss/oss-parent19/oss-parent9.pom (6.6 kB at 104 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/sodehaus/plexus/plexus-compiler-api/2.8.4/plexus-compiler-api-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-2.8.4.4/plexus-compiler-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus-plexus-compiler/2.8.4/plexus-compiler-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus-plexus-utils/3.8.22/plexus-utils-3.8.22.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus-plexus-utils/3.8.22/plexus-compiler-2.8.4.pom (6.6 kB at 102 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus-plexus-compiler-2.8.4.pom (6.6 kB at 102 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-2.8.4.pom (6.6 kB at 102 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-3.8.4/plexus-compiler-3.pavc-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-3.2.8.4/plexus-compiler-3.pavc-2.8.4.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-3.pavc-2.8.4.pom (6.6 kB at 12 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/plexus-compiler-3.pavc-2.8.4.pom (6.6 kB at 12 kB/s)
Downloading from central: https://repo.maven.apache
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                               Changes detected - recompiling the module!

Compiling 1 source file to C:\Users\admin\apache-maven-3.9.4\bin\Project\target\classes
                                --- resources:3.0.2:testResources (default-testResources) @ Project --- Using 'UTF-8' encoding to copy filtered resources. skip non existing resourceDirectory C:\Users\admin\apache-maven-3.9.4\bin\Project\src\test\resources
                                                                                                       8.0:testCompile (default-testCompile) @ Project ---
                                Changes detected - recompiling the module!

Compiling 1 source file to C:\Users\admin\apache-maven-3.9.4\bin\Project\target\test-classes
                                  Total time: 18.951 s
                                 Finished at: 2023-09-18T23:49:48+05:30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    n x
  C:\Windows\System32\cmd.exe
                              rs\admin\apache-maven-3.9.4\bin\Project>mvn test-compile
Scanning for projects...
                                                                                                                                      -----< Rohit:Project >------
                               Building Project rohit from pom.xml
                                         -----[ jar ]-----
            WFO] --- resources:3.0.2:resources (default-resources) @ Project ---
wnloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-component-annotations/1.6/plexus-component-annotations-1.6.pom
wnloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-component-annotations/1.6/plexus-component-annotations-1.6.pom (748 B at 760 B/
    Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-component-annotations/1.6/plexus-component-annotations-1.6.pom (748 B at 760 pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-containers-1.6.pom (748 B at 760 pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-containers-1.6.pom (3.8 kB at 10 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/s.3.2.pom (22 kB at 141 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/s.3.2.pom (22 kB at 141 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/sonatype/splce/splce-parent-17/pom (6.8 kB at 94 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/sonatype/splce/splce-parent-17/pom (6.8 kB at 94 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.5.pom (6.8 kB at 94 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.5.pom (6.8 kB at 97 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.5.pom (6.8 kB at 97 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.5.pom (6.1 kB at 57 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/podehaus/plexus/plexus-utils/1.5.5.pom (6.1 kB at 107 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/pache/maven/shared/maven-filtering/3.1.1.pom (9.6 kB at 107 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/pache/maven/shared/maven-filtering/3.1.1.pom (6.7 kB at 85 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/pache/maven/shared/maven-filtering/3.1.1.pom (6.7 kB at 85 kB/s) pownloading from central: https://repo.maven.apache.org/maven2/org/pache/maven/shared/maven-filtering/3.1.1.pom (6.
```

#### Step 8: Running Package

C:\Windows\System32\cmd.exe

C:\Windows\System32\cmd.exe



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```
:\Users\admin\apache-maven-3.9.4\bin\Project>mvn package
                               Scanning for projects...
                                                                                                                                                 ----< Rohit:Project >-----
                                Building Project rohit
                                          from pom.xml
                                   -----[ jar ]------
                               --- resources:3.0.2:resources (default-resources) @ Project --- Using 'UTF-8' encoding to copy filtered resources. skip non existing resourceDirectory C:\Users\admin\apache-maven-3.9.4\bin\Project\src\main\resources
                                     --- compiler:3.8.0:compile (default-compile) @ Project ---
                               Nothing to compile - all classes are up to date
                               --- resources:3.0.2:testResources (default-testResources) @ Project --- Using 'UTF-8' encoding to copy filtered resources. skip non existing resourceDirectory C:\Users\admin\apache-maven-3.9.4\bin\Project\src\test\resources
                               --- compiler:3.8.0:testCompile (default-testCompile) @ Project --- Nothing to compile - all classes are up to date
  [INFO] --- surefire:2.22.1:test (default-test) @ Project ---
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/maven-surefire-common/2.22.1/maven-surefire-common-2.22.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/maven-surefire-common/2.22.1/maven-surefire-common-2.22.1.pom (11 kB at 14 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugin-tools/maven-plugin-annotations/3.5.2/maven-plugin-annotations-3.5.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugin-tools/maven-plugin-annotations/apache/maven/plugin-tools/maven/plugin-annotations/apache/maven/plugin-tools/maven/plugin-tools/maven/plugin-tools/maven/plug
 21 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugin-tools/maven-plugin-tools/3.5.2/maven-plugin-tools-3.5.2.pom

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugin-tools/maven-plugin-tools/3.5.2/maven-plugin-tools-3.5.2.pom (15 kB at 39 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-api/2.22.1/surefire-api-2.22.1.pom (3.5 kB at 5.3 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-api/2.22.1/surefire-api-2.22.1.pom (3.5 kB at 5.3 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-logger-api/2.22.1/surefire-logger-api-2.22.1.pom

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/2.22.1/surefire-logger-api-2.22.1.pom (2.0 kB at 26 kB/s)

Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/2.22.1/surefire-booter-2.22.1.pom (7.5 kB at 104 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/2.22.1/surefire-booter-2.22.1.pom (7.5 kB at 104 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/2.22.1/surefire-booter-2.22.1.pom (7.5 kB at 104 kB/s)

Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-container-default/1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1.00m
   ownloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-container-default/1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1.0-alpha-9-stable-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container-default-1/plexus-container
ble-1.pom (3.9 kB at 56 kB/s)
  Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-containers/1.0.3/plexus-containers-1.0.3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-containers/1.0.3/plexus-containers-1.0.3.pom (492 B at 7.9 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/1.0.4/plexus-1.0.4.pom
   ownloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/1.0.4/plexus-1.0.4.pom (5.7 kB at 65 kB/s)
ownloading from central: https://repo.maven.apache.org/maven2/junit/junit/4.12/junit-4.12.pom
```

```
(INFO) Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
(INFO) Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
(INFO) ... jers: 3.0.2.2 jers ((efault-jan) & Project ... jers: 3.0.2 jers
```