Build and Release Management Lab

Name- Sahil Bansal

SAPID- 500075412

Roll No. - R171219031

LAB EXERCISE 6

Aim: Create a simple Maven Project using CLI

```
Command Prompt
Microsoft Windows [Version 10.0.19042.867]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Sahil Bansal>mvn --version
Apache Maven 3.5.3 (3383c37e1f9e9b3bc3df5050c29c8aff9f295297; 2018-02-25T01:19:05+05:30)
Maven home: C:\apache-maven-3.5.3\bin\..
Java version: 15.0.1, vendor: Oracle Corporation
Java home: C:\Program Files\Java\jdk-15.0.1
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"

C:\Users\Sahil Bansal>cd C:\Users\Sahil Bansal\eclipse-workspace
```
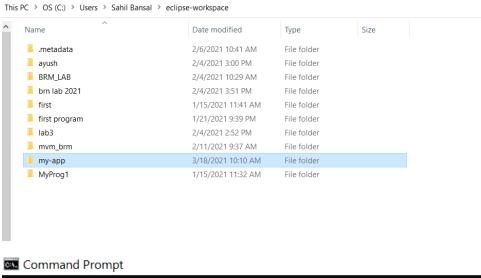
Creating a Project:

You will need somewhere for your project to reside, create a directory somewhere and start a shell in that directory. On your command line, execute the following Maven goal

You will notice that the generate goal created a directory with the same name given as the artifact ID. Change into that directory.

POM.XML File

```xml
<?xml version="1.0" encoding="UTF-8"?>
<project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://maven.apache.org/POM/4.0.0">
    <modelVersion>4.0.0</modelVersion>
    <groupId>com.devops.upes</groupId>
    <artifactId>my-app</artifactId>
    <version>1.0-SNAPSHOT</version>
    <name>my-app</name>
        <!-- FIXME change it to the project's website -->
    <url>http://www.example.com</url>
    <properties>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
        <maven.compiler.source>1.7</maven.compiler.source>
        <maven.compiler.target>1.7</maven.compiler.target>
    </properties>
    <dependencies>
        <dependency>
            <groupId>junit</groupId>
            <artifactId>junit</artifactId>
            <version>4.11</version>
            <scope>test</scope>
        </dependency>
    </dependencies>
    <build>
        <pluginManagement>
            <!-- lock down plugins versions to avoid using Maven defaults (may be moved to
            parent pom) -->
            <plugins>
                <!-- clean lifecycle, see https://maven.apache.org/ref/current/maven-
                core/lifecycles.html#clean_Lifecycle -->
                <plugin>
                    <artifactId>maven-clean-plugin</artifactId>
                    <version>3.1.0</version>
                </plugin>
                <!-- default lifecycle, jar packaging: see
                https://maven.apache.org/ref/current/maven-core/default-
                bindings.html#Plugin_bindings_for_jar_packaging -->
                <plugin>
                    <artifactId>maven-resources-plugin</artifactId>
                    <version>3.0.2</version>
                </plugin>
                <plugin>
                    <artifactId>maven-compiler-plugin</artifactId>
                    <version>3.8.0</version>
                </plugin>
                <plugin>
                    <artifactId>maven-surefire-plugin</artifactId>
                    <version>2.22.1</version>
```

```xml
                    </plugin>
        -           <plugin>
                        <artifactId>maven-jar-plugin</artifactId>
                        <version>3.0.2</version>
                    </plugin>
        -           <plugin>
                        <artifactId>maven-install-plugin</artifactId>
                        <version>2.5.2</version>
                    </plugin>
        -           <plugin>
                        <artifactId>maven-deploy-plugin</artifactId>
                        <version>2.8.2</version>
                    </plugin>
                        <!-- site lifecycle, see https://maven.apache.org/ref/current/maven-
                        core/lifecycles.html#site_Lifecycle -->
        -           <plugin>
                        <artifactId>maven-site-plugin</artifactId>
                        <version>3.7.1</version>
                    </plugin>
        -           <plugin>
                        <artifactId>maven-project-info-reports-plugin</artifactId>
                        <version>3.0.0</version>
                    </plugin>
                </plugins>
            </pluginManagement>
        </build>
    </project>
```

Build the Project

```
C:\Users\Sahil Bansal\eclipse-workspace\my-app>mvn package
```

The command line will print out various actions, and end with the following:

You may test the newly compiled and packaged JAR with the following command, which will print the quintessential:

```
C:\Users\Sahil Bansal\eclipse-workspace\my-app>java -cp target/my-app-1.0-SNAPSHOT.jar com.devops.upes.App
Hello World!

C:\Users\Sahil Bansal\eclipse-workspace\my-app>_
```