Handson session

: Creating and Configuring a Maven Project

Maven

Maven is a build automation and project management tool used in Java projects. It simplifies dependency management, builds processes, and project configuration using a standard POM (Project Object Model) file.

Creating a New Maven Project

A Maven project named 'LibraryManagement' is created using an IDE like Eclipse or IntelliJ, or via the command line using Maven archetypes.

Objective of the Exercise

The purpose of this exercise is to create a Maven project for the library management application and configure it with the necessary Spring dependencies and plugins.

Output and Screenshots

```
C:\Users\DELL>   cd "C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement"

C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement>   mvn clean package
WARNING: A terminally deprecated method in sun.misc.Unsafe has been called
WARNING: sun.misc.Unsafe::staticFieldBase has been called by com.google.inject.internal.aop.HiddenClassDefiner (file:/C:/Users/DELL/D
ownloads/apache-maven-3.9.10-bin/apache-maven-3.9.10/lib/guice-5.1.0-classes.jar)
WARNING: Please consider reporting this to the maintainers of class com.google.inject.internal.aop.HiddenClassDefiner
WARNING: sun.misc.Unsafe::staticFieldBase will be removed in a future release
[INFO] Scanning for projects...
[INFO]
[INFO] ----------------< com.example.library:LibraryManagement >----------------
[INFO] Building LibraryManagement 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] --------------------------------[ jar ]---------------------------------
Downloading from central: https://repo.maven.apache.org/maven2/org/aspectj/aspectjweaver/1.9.21/aspectjweaver-1.9.21.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/aspectj/aspectjweaver/1.9.21/aspectjweaver-1.9.21.pom (2.1 kB at 1.
2 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/aspectj/aspectjweaver/1.9.21/aspectjweaver-1.9.21.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/aspectj/aspectjweaver/1.9.21/aspectjweaver-1.9.21.jar (2.1 MB at 99
4 kB/s)
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ LibraryManagement ---
[INFO] Deleting C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ LibraryManagement ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement\src\main\resource
s
```

```
t 1.1 MB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.26.1/commons-compress-1.26.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-io/3.4.2/plexus-io-3.4.2.jar (79 kB at 351 k
B/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-lang3/3.14.0/commons-lang3-3.14.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-archiver/3.6.2/maven-archiver-3.6.2.jar (27 kB a
t 55 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1.16.1/commons-codec-1.16.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/4.9.2/plexus-archiver-4.9.2.jar (22
5 kB at 457 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/iq80/snappy/snappy/0.4/snappy-0.4.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/iq80/snappy/snappy/0.4/snappy-0.4.jar (58 kB at 76 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/com/github/luben/zstd-jni/1.5.5-11/zstd-jni-1.5.5-11.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-lang3/3.14.0/commons-lang3-3.14.0.jar (658 k
B at 729 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1.16.1/commons-codec-1.16.1.jar (365 kB at
177 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-compress/1.26.1/commons-compress-1.26.1.jar
(1.1 MB at 265 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.16.1/commons-io-2.16.1.jar (509 kB at 104 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/github/luben/zstd-jni/1.5.5-11/zstd-jni-1.5.5-11.jar (6.8 MB at 188
 kB/s)
[INFO] Building jar: C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement\target\LibraryManagement-1.0-SNAPSHOT.j
ar
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  01:00 min
[INFO] Finished at: 2025-07-06T14:40:13+05:30
[INFO] ------------------------------------------------------------------------

C:\Users\DELL\OneDrive\Desktop\Spring core and maven 4\LibraryManagement>
```

 Summary Statement

This exercise highlights the process of setting up a Maven project from scratch, adding essential Spring
dependencies, and configuring the project for Java development using Maven plugins.