

Домашнее задание по теме «Работа с Maven. JAR»

Формулировка задания:

1. Преобразовать проект для Промежуточной аттестации 1 в maven-проект.
 - Создаем pom.xml файл в проекте с домашним заданием.
 - Пишем/изменяем теги заголовка groupId, artifactId.
 - Добавить зависимости
 - Добавляем тег <build>. Указываем в нем где находятся ресурсы, имя результирующего jar файла.
2. Настроить зависимости для проекта в dependencies Maven.
3. Собрать исполняемый архив средствами Maven со сторонними библиотеками (JUnit и других библиотек, которые включены в проект Промежуточной аттестации 1).
4. Обратит внимание на MANIFEST-файл и его настройку с классами сторонней библиотеки.
5. Отдельно показать в отчёте (сделать скрины) собранный JAR файл через Maven.

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0"
3     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4     xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
5     <modelVersion>4.0.0</modelVersion>
6
7     <groupId>ru.klgd.javadev</groupId>
8     <artifactId>homework15</artifactId>
9     <version>1.0-SNAPSHOT</version>
10
11     <properties>
12         <maven.compiler.source>21</maven.compiler.source>
13         <maven.compiler.target>21</maven.compiler.target>
14         <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
15     </properties>
16
17     <dependencies>
18         <dependency>
19             <groupId>org.projectlombok</groupId>
20             <artifactId>lombok</artifactId>
21             <version>1.18.42</version>
22         </dependency>
23
24         <dependency>
25             <groupId>org.junit.jupiter</groupId>
26             <artifactId>junit-jupiter-api</artifactId>
27             <version>5.13.4</version>
```

```
28         <scope>test</scope>
29     </dependency>
30 </dependencies>
31
32 <build>
33     <finalName>jar_attestation01</finalName>
34     <resources>
35         <resource>
36             <directory>src/main/resources</directory>
37         </resource>
38     </resources>
39 </build>
40
41 </project>
```

```
"C:\Program Files\Java\jdk-21.0.2\bin\java.exe" -Dmaven.multiModuleProjectDirectory=D:\JavaProject\JavaDevHomeworks\src\homeworks\homework15 -Djansi
.passthrough=true -Dmaven.home=G:\JetBrains\IntelliJ IDEA 2025.1\plugins\maven\lib\maven3 -Dclassworlds.conf=G:\JetBrains\IntelliJ IDEA 2025
.1\plugins\maven\lib\maven3\bin\m2.conf -Dmaven.ext.class.path=G:\JetBrains\IntelliJ IDEA 2025.1\plugins\maven\lib\maven-event-listener.jar
-javaagent:G:\JetBrains\IntelliJ IDEA 2025.1\lib\idea_rt.jar=63531 -Dfile.encoding=UTF-8 -Dsun.stdout.encoding=UTF-8 -Dsun.stderr.encoding=UTF-8 -classpath
G:\JetBrains\IntelliJ IDEA 2025.1\plugins\maven\lib\maven3\boot\plexus-classworlds-2.8.0.jar;G:\JetBrains\IntelliJ IDEA 2025
.1\plugins\maven\lib\maven3\boot\plexus-classworlds.license org.codehaus.classworlds.Launcher -Didea.version=2025.1 package

[INFO] Scanning for projects...
[INFO]
[INFO] -----< ru.klgd.javadev:homework15 >-----
[INFO] Building homework15 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ homework15 ---
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-interpolation/1.26/plexus-interpolation-1.26.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-interpolation/1.26/plexus-interpolation-1.26.jar (85 kB at 112
kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.5.1/plexus-utils-3.5.1.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-filtering/3.3.1/maven-filtering-3.3.1.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/javax/inject/javax.inject/1/javax.inject-1.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/slf4j/slf4j-api/1.7.36/slf4j-api-1.7.36.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/sonatype/plexus/plexus-build-api/0.0.7/plexus-build-api-0.0.7.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/javax/inject/javax.inject/1/javax.inject-1.jar (2.5 kB at 31 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.11.0/commons-io-2.11.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.11.0/commons-io-2.11.0.jar (327 kB at 1.2 MB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-lang3/3.12.0/commons-lang3-3.12.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/sonatype/plexus/plexus-build-api/0.0.7/plexus-build-api-0.0.7.jar (8.5 kB at 30 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/slf4j/slf4j-api/1.7.36/slf4j-api-1.7.36.jar (41 kB at 118 kB/s)
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Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-filtering/3.3.1/maven-filtering-3.3.1.jar (55 kB at 149 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-lang3/3.12.0/commons-lang3-3.12.0.jar (587 kB at 1.4 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.5.1/plexus-utils-3.5.1.jar (269 kB at 567 kB/s)
[INFO] Copying 0 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ homework15 ---
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.4.2/maven-shared-utils-3.4.2.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.4.2/maven-shared-utils-3.4.2.jar (151 kB at 1.5 MB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-incremental/1.1/maven-shared-incremental-1.1.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-java/1.2.0/plexus-java-1.2.0.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm/9.6/asm-9.6.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-api/2.15.0/plexus-compiler-api-2.15.0.jar
Downloading from central: https://repo.maven.apache.org/maven2/com/thoughtworks/qdox/qdox/2.0.3/qdox-2.0.3.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-incremental/1.1/maven-shared-incremental-1.1.jar (14 kB at 157 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-manager/2.15.0/plexus-compiler-manager-2.15.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-java/1.2.0/plexus-java-1.2.0.jar (58 kB at 606 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-xml/3.0.0/plexus-xml-3.0.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-api/2.15.0/plexus-compiler-api-2.15.0.jar (29 kB at 248 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-javac/2.15.0/plexus-compiler-javac-2.15.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-manager/2.15.0/plexus-compiler-manager-2.15.0.jar (5.2 kB at 32 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/4.0.0/plexus-utils-4.0.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm/9.6/asm-9.6.jar (124 kB at 714 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-xml/3.0.0/plexus-xml-3.0.0.jar (93 kB at 508 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-compiler-javac/2.15.0/plexus-compiler-javac-2.15.0.jar (26 kB at
```


120 kB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/com/thoughtworks/qdox/qdox/2.0.3/qdox-2.0.3.jar> (334 kB at 1.4 MB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/4.0.0/plexus-utils-4.0.0.jar> (192 kB at 743 kB/s)

[INFO] Recompiling the module because of changed source code.

[INFO] Compiling 5 source files with javac [debug target 21] to target\classes

[INFO] Annotation processing is enabled because one or more processors were found on the class path. A future release of javac may disable annotation processing unless at least one processor is specified by name (-processor), or a search path is specified (--processor-path, --processor-module-path), or annotation processing is enabled explicitly (-proc:only, -proc:full).
Use -Xlint:-options to suppress this message.
Use -proc:none to disable annotation processing.

[INFO]

[INFO] --- resources:3.3.1:testResources (default-testResources) @ homework15 ---

[INFO] skip non existing resourceDirectory D:\JavaProject\JavaDevHomeworks\src\homeworks\homework15\src\test\resources

[INFO]

[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ homework15 ---

[INFO] Recompiling the module because of changed dependency.

[INFO]

[INFO] --- surefire:3.2.5:test (default-test) @ homework15 ---

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/maven-surefire-common/3.2.5/maven-surefire-common-3.2.5.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/maven-surefire-common/3.2.5/maven-surefire-common-3.2.5.jar> (308 kB at 2.5 MB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-api/3.2.5/surefire-api-3.2.5.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-logger-api/3.2.5/surefire-logger-api-3.2.5.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-api/3.2.5/surefire-extensions-api-3.2.5.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/3.2.5/surefire-booter-3.2.5.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-spi/3.2.5/surefire-extensions-spi-3.2.5.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-logger-api/3.2.5/surefire-logger-api-3.2.5.jar> (14 kB at 143 kB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-api/3.2.5/surefire-extensions-api-3.2.5.jar> (26 kB at 275 kB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-util/1.0.0.v20140518/aether-util-1.0.0.v20140518.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-spi/3.2.5/surefire-extensions-spi-3.2.5.jar> (8.2 kB at 80 kB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-common-artifact-filters/3.1.1/maven-common-artifact-filters-3.1.1.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-api/3.2.5/surefire-api-3.2.5.jar> (171 kB at 1.5 MB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/commons-io/commons-io/2.15.1/commons-io-2.15.1.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-common-artifact-filters/3.1.1/maven-common-artifact-filters-3.1.1.jar> (61 kB at 325 kB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-shared-utils/3.2.5/surefire-shared-utils-3.2.5.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/3.2.5/surefire-booter-3.2.5.jar> (118 kB at 612 kB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar> (136 kB at 640 kB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-util/1.0.0.v20140518/aether-util-1.0.0.v20140518.jar> (146 kB at 626 kB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/commons-io/commons-io/2.15.1/commons-io-2.15.1.jar> (501 kB at 2.0 MB/s)

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-shared-utils/3.2.5/surefire-shared-utils-3.2.5.jar> (2.4 MB at 4.2 MB/s)

[INFO]

[INFO] --- jar:3.4.1:jar (default-jar) @ homework15 ---

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/shared/file-management/3.1.0/file-management-3.1.0.jar>

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/shared/file-management/3.1.0/file-management-3.1.0.jar> (36 kB at 438 kB/s)

Downloading from central: <https://repo.maven.apache.org/maven2/commons-io/commons-io/2.16.1/commons-io-2.16.1.jar>

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/maven-archiver/3.6.2/maven-archiver-3.6.2.jar>
Downloading from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-interpolation/1.27/plexus-interpolation-1.27.jar>
Downloading from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/4.0.1/plexus-utils-4.0.1.jar>
Downloading from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/4.9.2/plexus-archiver-4.9.2.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/4.9.2/plexus-archiver-4.9.2.jar> (225 kB at 1.0 MB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-io/3.4.2/plexus-io-3.4.2.jar>
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 2.2 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/apache/maven/maven-archiver/3.6.2/maven-archiver-3.6.2.jar> (27 kB at 103 kB/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/codehaus/plexus/plexus-io/3.4.2/plexus-io-3.4.2.jar> (79 kB at 257 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/commons-codec/commons-codec/1.16.1/commons-codec-1.16.1.jar> (365 kB at 744 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/apache/commons/commons-compress/1.26.1/commons-compress-1.26.1.jar> (1.1 MB at 2.1 MB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/org/tukaani/xz/1.9/xz-1.9.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-interpolation/1.27/plexus-interpolation-1.27.jar> (86 kB at 166 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 kB at 1.2 MB/s)
Downloaded from central: <https://repo.maven.apache.org/maven2/org/iq80/snappy/snappy/0.4/snappy-0.4.jar> (58 kB at 101 kB/s)
Downloaded from central: <https://repo.maven.apache.org/maven2/org/tukaani/xz/1.9/xz-1.9.jar> (116 kB at 173 kB/s)
Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/4.0.1/plexus-utils-4.0.1.jar> (193 kB at 269 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 5.6 MB/s)
[INFO] Building jar: D:\JavaProject\JavaDevHomeworks\src\homeworks\homework15\target\jar_attestation01.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----


```
[INFO] -----  
[INFO] Total time: 7.595 s  
[INFO] Finished at: 2025-10-03T23:43:48+02:00  
[INFO] -----
```

- homework15
 - .mvn
 - src
 - main
 - java
 - ru.klgd.javadev
 - exception
 - UserNotFoundException
 - model
 - User
 - repository
 - Impl
 - UsersRepositoryFileImpl
 - UsersRepository
 - App
 - input.txt
 - resources
 - test
 - java
 - TestAttestation01
 - target
 - classes
 - generated-sources
 - generated-test-sources
 - maven-archiver
 - maven-status
 - test-classes
 - jar_attestation01.jar
 - pom.xml