BUILD AND RELEASE MANAGEMENT
LAB
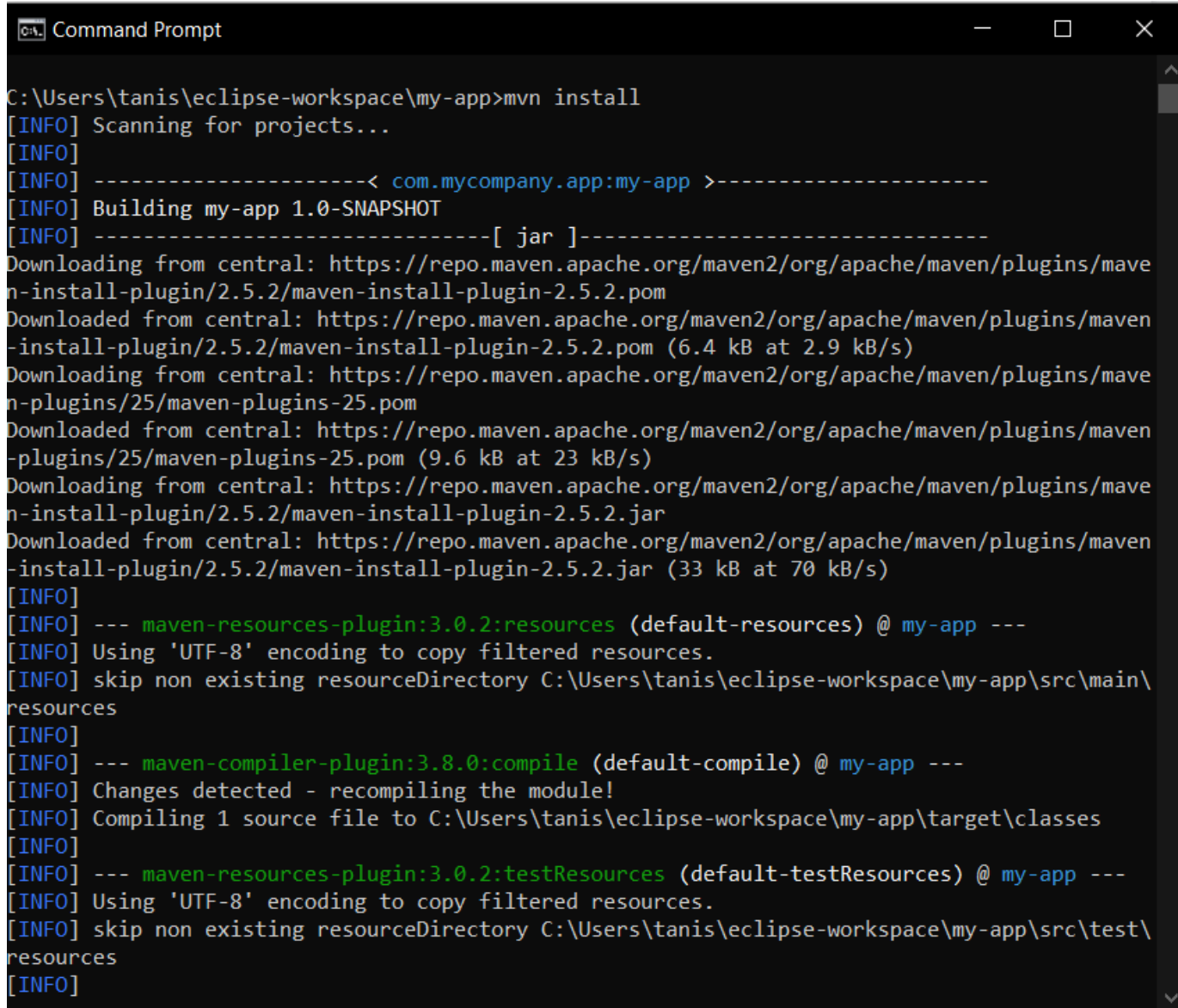
LAB 8
1st APRIL

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DEVOPS 2ND YEAR
4th SEMESTER

Aim: Build Profile Using Maven

PROCEDURE:

- Run maven install to check if the project is working correctly

```
.6/commons-codec-1.6.pom
Downloaded from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1.
6/commons-codec-1.6.pom (11 kB at 27 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven
-shared-utils/0.4/maven-shared-utils-0.4.pom
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 9.9 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-ut
ils/3.0.15/plexus-utils-3.0.15.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-uti
ls/3.0.15/plexus-utils-3.0.15.pom (3.1 kB at 8.2 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1
.6/commons-codec-1.6.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-ut
ils/3.0.15/plexus-utils-3.0.15.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven
-shared-utils/0.4/maven-shared-utils-0.4.jar
Downloaded from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1.
6/commons-codec-1.6.jar (233 kB at 92 kB/s)
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 60 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-uti
ls/3.0.15/plexus-utils-3.0.15.jar (239 kB at 77 kB/s)
[INFO] Installing C:\Users\tanis\eclipse-workspace\my-app\target\my-app-1.0-SNAPSHOT.jar to
C:\Users\tanis\.m2\repository\com\mycompany\app\my-app\1.0-SNAPSHOT\my-app-1.0-SNAPSHOT.jar
[INFO] Installing C:\Users\tanis\eclipse-workspace\my-app\pom.xml to C:\Users\tanis\.m2\repo
sitory\com\mycompany\app\my-app\1.0-SNAPSHOT\my-app-1.0-SNAPSHOT.pom
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 36.423 s
[INFO] Finished at: 2021-04-01T04:54:53+05:30
[INFO] ------------------------------------------------------------------------
```

● Editing pom.xml file to add the profile

```xml
66              <version>3.7.1</version>
67            </plugin>
68            <plugin>
69              <artifactId>maven-project-info-reports-plugin</artifactId>
70              <version>3.0.0</version>
71            </plugin>
72          </plugins>
73        </pluginManagement>
74      </build>
75
76    <profiles>
77        <profile>
78          <id>test</id>
79          <build>
80            <plugins>
81              <plugin>
82                <groupId>org.apache.maven.plugins</groupId>
83                <artifactId>maven-antrun-plugin</artifactId>
84                <version>1.1</version>
85                <executions>
86                  <execution>
87                    <phase>test</phase>
88                    <goals>
89                      <goal>run</goal>
90                    </goals>
91                    <configuration>
92                      <tasks>
93                        <echo>files copied successfully!</echo>
94                        <copy file="src/main/newfile.txt"
95                          tofile="src/newfile.txt"/>
96                      </tasks>
97                    </configuration>
98                  </execution>
99                </executions>
100             </plugin>
101           </plugins>
102         </build>
103       </profile>
104     </profiles>
105 </project>
106
```

● Running the command maven test -Ptest

```
Command Prompt                                                    —   □   ✕

C:\Users\tanis\eclipse-workspace\my-app>mvn test -Ptest
[INFO] Scanning for projects...
[INFO]
[INFO] ---------------------< com.mycompany.app:my-app >----------------------
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] --------------------------------[ jar ]---------------------------------
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/mave
n-antrun-plugin/1.1/maven-antrun-plugin-1.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven
-antrun-plugin/1.1/maven-antrun-plugin-1.1.pom (1.2 kB at 772 B/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/mave
n-plugin-parent/2.0.1/maven-plugin-parent-2.0.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven
-plugin-parent/2.0.1/maven-plugin-parent-2.0.1.pom (7.4 kB at 17 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/mave
n-antrun-plugin/1.1/maven-antrun-plugin-1.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven
-antrun-plugin/1.1/maven-antrun-plugin-1.1.jar (12 kB at 27 kB/s)
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\main\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\test\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
```

```
C:\ Command Prompt                                                    —    □    ✕

[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\test\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[INFO]
[INFO] -------------------------------------------------------
[INFO]  T E S T S
[INFO] -------------------------------------------------------
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.066 s - in com.myco
mpany.app.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-antrun-plugin:1.1:run (default) @ my-app ---
[INFO] Executing tasks
     [echo] files copied successfully!
     [copy] Copying 1 file to C:\Users\tanis\eclipse-workspace\my-app\src
[INFO] Executed tasks
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 01:20 min
[INFO] Finished at: 2021-04-01T05:10:43+05:30
[INFO] ------------------------------------------------------------------------
```

We get build success
We get an echo message saying "files copied successfully!"
The file is also copied to the src folder.
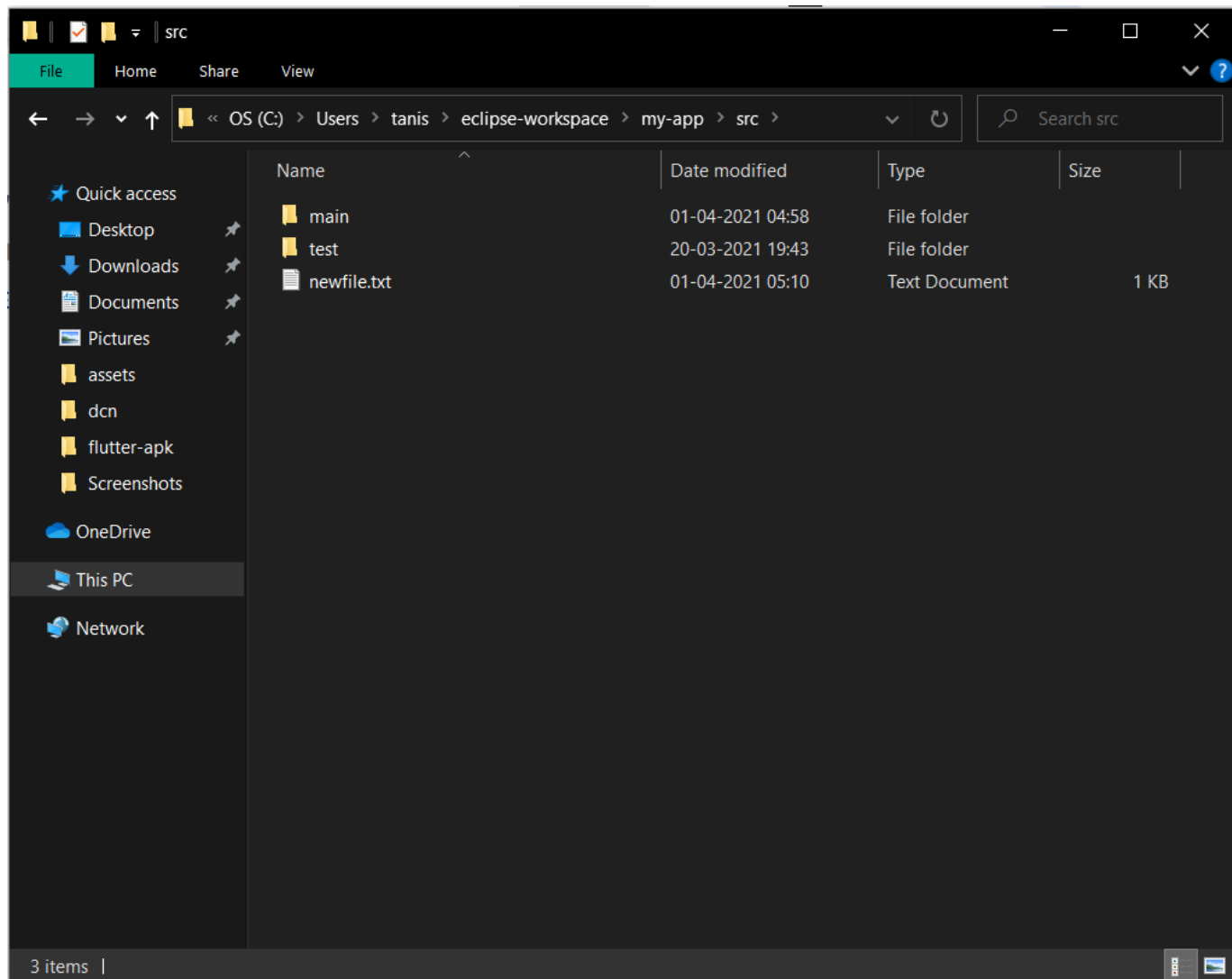
- Adding two profiles, test and newtest. test is used for copying files and newtest is used for displaying a message

```xml
 78                    <id>test</id>
 79                    <build>
 80                        <plugins>
 81                            <plugin>
 82                                <groupId>org.apache.maven.plugins</groupId>
 83                                <artifactId>maven-antrun-plugin</artifactId>
 84                                <version>1.1</version>
 85                                <executions>
 86                                    <execution>
 87                                        <phase>test</phase>
 88                                        <goals>
 89                                            <goal>run</goal>
 90                                        </goals>
 91                                        <configuration>
 92                                            <tasks>
 93                                                <copy file="src/main/newfile.txt"
 94                                                    tofile="src/newfile.txt"/>
 95                                            </tasks>
 96                                        </configuration>
 97                                    </execution>
 98                                </executions>
 99                            </plugin>
100
101                        </plugins>
102                    </build>
103                </profile>
104                <profile>
105                    <id>newtest</id>
106                    <build>
107                        <plugins>
108                            <plugin>
109                                <groupId>org.apache.maven.plugins</groupId>
110                                <artifactId>maven-antrun-plugin</artifactId>
111                                <version>1.1</version>
112                                <executions>
113                                    <execution>
114                                        <phase>test</phase>
115                                        <goals>
116                                            <goal>run</goal>
117                                        </goals>
118                                        <configuration>
119                                            <tasks>
120                                                <echo>files copied successfully!</echo>
121                                            </tasks>
122                                        </configuration>
123                                    </execution>
124                                </executions>
125                            </plugin>
126
127                        </plugins>
128                    </build>
129                </profile>
```

- Running the command maven test -Ptest -Pnewtest

```
Command Prompt                                                    —    □    ✕

C:\Users\tanis\eclipse-workspace\my-app>mvn test -Ptest -Pnewtest
[INFO] Scanning for projects...
[INFO]
[INFO] ---------------------< com.mycompany.app:my-app >----------------------
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] --------------------------------[ jar ]--------------------------------
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\main\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\test\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[INFO]
[INFO] -------------------------------------------------------
[INFO]  T E S T S
[INFO] -------------------------------------------------------
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.055 s - in com.myco
mpany.app.AppTest
[INFO]
[INFO] Results:
```

```
Command Prompt                                                    —    □    X
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\test\
resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[INFO]
[INFO] -------------------------------------------------------
[INFO]  T E S T S
[INFO] -------------------------------------------------------
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.055 s - in com.myco
mpany.app.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-antrun-plugin:1.1:run (default) @ my-app ---
[INFO] Executing tasks
     [echo] files copied successfully!
     [copy] Copying 1 file to C:\Users\tanis\eclipse-workspace\my-app\src
[INFO] Executed tasks
[INFO] -------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] -------------------------------------------------------------------
[INFO] Total time: 4.888 s
[INFO] Finished at: 2021-04-01T05:28:34+05:30
[INFO] -------------------------------------------------------------------

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

We get build success
We get an echo message saying "files copied successfully!" through the newtest profile
The file is also copied to the src folder which is done using the test profile

- Adding our profiles as active profiles in %USER_HOME%/.m2/settings.xml

```
1
2   <settings xmlns="http://maven.apache.org/SETTINGS/1.0.0"
3       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4       xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.0.0 http://maven.apache.org/xsd/settings-1.0.0.xsd">
5     <servers>
6       <server>
7           <id>abc</id>
8           <username>admin</username>
9           <password>admin123</password>
10      </server>
11    </servers>
12
13  <activeProfiles>
14        <activeProfile>test</activeProfile>
15        <activeProfile>newtest</activeProfile>
16      </activeProfiles>
17
18
19
20  </settings>
```

- Running maven test, which will automatically run our active profiles


```
C:\Users\tanis\eclipse-workspace\my-app>mvn test
[INFO] Scanning for projects...
[INFO]
[INFO] ---------------------< com.mycompany.app:my-app >----------------------
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ my-app ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\tanis\eclipse-workspace\my-app\src\test\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[INFO]
[INFO] -------------------------------------------------------
[INFO]  T E S T S
[INFO] -------------------------------------------------------
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.095 s - in com.mycompany.app.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-antrun-plugin:1.1:run (default) @ my-app ---
[INFO] Executing tasks
    [echo] files copied successfully!
    [copy] Copying 1 file to C:\Users\tanis\eclipse-workspace\my-app\src
[INFO] Executed tasks
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 8.696 s
[INFO] Finished at: 2021-04-01T12:30:17+05:30
[INFO] ------------------------------------------------------------------------

C:\Users\tanis\eclipse-workspace\my-app>
```

We get a build success
We get an echo message "files copied successfully" generated by the newtest profile
The file is also copied to the src folder which is done using the test profile