GRADLE EXERCISE

1. Add a gradle dependency and its related repository url.

```
suraj@suraj:GradleProject (JAVAFEATURES)$ gradle build
Starting a Gradle Daemon (subsequent builds will be faster)
Cleaned up directory '/home/suraj/IdeaProjects/GradleProject/build/classes/main'
:processResources NO-SOURCE
:classes
:jar UP-TO-DATE
:assemble UP-TO-DATE
:compileTestJava NO-SOURCE
:processTestResources NO-SOURCE
:testClasses UP-TO-DATE
:test NO-SOURCE
:check UP-TO-DATE
:build UP-TO-DATE

BUILD SUCCESSFUL
```

2. Using java plugin, make changes in the manifest to make the jar executable. Using java -jar JAR_NAME, the output should be printed as "Hello World"

```
suraj@suraj:GradleProject (Gradle)$ java -jar /home/suraj/IdeaProjects/GradleProject/build/libs/GradleProject-1.0-SNAPSHOT.jar
hello world
```

3. Differentiate between the different dependency scopes: compile, runtime, testCompile, testRuntime using different dependencies being defined in your build.gradle.

Build.gradle → dependencies → testCompile,run,runCompile,Compile

4. Create a custom plugin which contains a custom task which prints the current date-time.
   Using that plugin in your project, execute that task after the jar task executes.

```
4:22:40 PM: Executing task 'customShowDate'...


> Task :customShowDate

Custom current Date is: Mon Mar 02 16:22:40 IST 2020


BUILD SUCCESSFUL in 0s
1 actionable task: 1 executed
4:22:40 PM: Task execution finished 'customShowDate'.
```
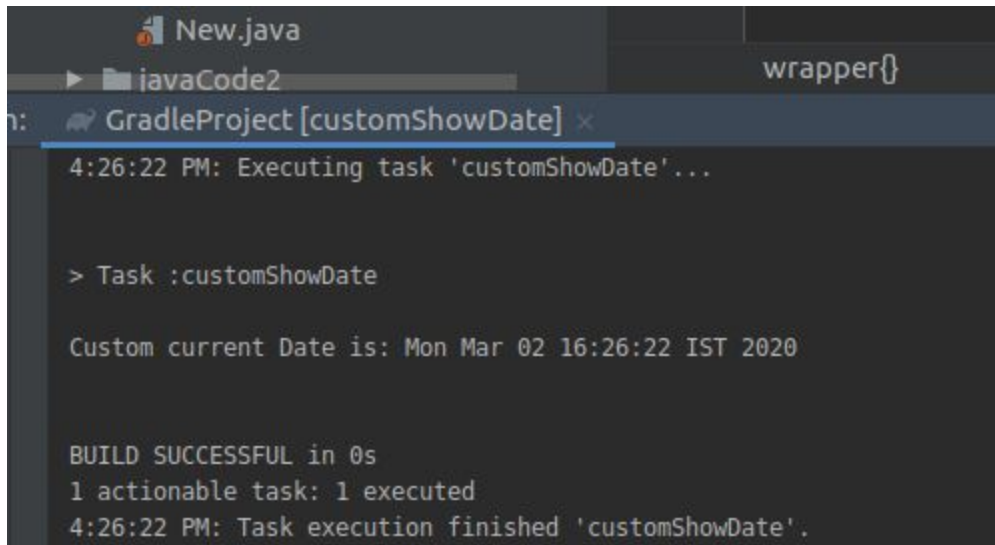
5. Instead of using default source set, use src/main/javaCode1, src/main/javaCode2 to be
   taken as code source. Make sure that the JAR created contains files from both the
   directories and not from src/main/java.

```
suraj@suraj:GradleProject (Gradle)$ jar cf code1.jar src/main/*
suraj@suraj:GradleProject (Gradle)$ jar tf code1.jar
META-INF/
META-INF/MANIFEST.MF
src/main/code1.jar
src/main/java/
src/main/java/Hello.java
src/main/javaCode1/
src/main/javaCode1/New.java
src/main/javaCode2/
src/main/javaCode2/New1.java
src/main/resources/
```

6. Override the Gradle Wrapper task to install a different version of gradle. Make sure that the task written in Q4 also executes with it.

```
New.java
▶ javaCode2
                                                       wrapper{}
n:   GradleProject [customShowDate] ×
4:26:22 PM: Executing task 'customShowDate'...


> Task :customShowDate

Custom current Date is: Mon Mar 02 16:26:22 IST 2020


BUILD SUCCESSFUL in 0s
1 actionable task: 1 executed
4:26:22 PM: Task execution finished 'customShowDate'.
```

7. Run the gradle profile command and attach the resulting files.

Profile report

Profiled build: help

Started on: 2020/02/27 - 12:47:31

| Summary | Configuration | Dependency Resolution | Task Execution |

Description	Duration
Total Build Time	0.891s
Startup	0.775s
Settings and BuildSrc	0.004s
Loading Projects	0.003s
Configuring Projects	0.075s
Task Execution	0.003s

Generated by Gradle 3.5 at 27 Feb, 2020 12:47:32 PM