# EXERCISE

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

```
preeti@preeti:~/GradleProject1$ gradle build
:compileJava NO-SOURCE
:processResources NO-SOURCE
:classes UP-TO-DATE
:jar
:assemble
:compileTestJava NO-SOURCE
:processTestResources NO-SOURCE
:testClasses UP-TO-DATE
:test NO-SOURCE
:check UP-TO-DATE
:build

BUILD SUCCESSFUL

Total time: 0.785 secs
preeti@preeti:~/GradleProject1$
```

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"

```
preeti@preeti:~/GradleProject1$ java -jar /home/preeti/GradleProject1/build/libs/GradleProject1-1.0-SNAPSHOT.jar
hello world
preeti@preeti:~/GradleProject1$
```

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

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.

Build.gradle --->  created custom plugin ----> created custom task

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.

```
preeti@preeti:~/GradleProject1$ jar cf code1.jar src/main/*
preeti@preeti:~/GradleProject1$ jar tf code1.jar
META-INF/
META-INF/MANIFEST.MF
src/main/java/
src/main/java/Hello.java
src/main/javaCode1/
src/main/javaCode1/javacode1file
src/main/javaCode2/
src/main/javaCode2/javacode2file
src/main/resources/
preeti@preeti:~/GradleProject1$
```

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.

```
5:12:47 PM: Executing task 'customShowDate'...


> Task :customShowDate

Mon Mar 02 17:12:47 IST 2020


BUILD SUCCESSFUL in 0s
1 actionable task: 1 executed
5:12:47 PM: Task execution finished 'customShowDate'.
```

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

Gradle --profile

```
preeti@preeti:~/GradleProject1$ gradle --profile
Cleaned up directory '/home/preeti/GradleProject1/build/classes/main'
:help

Welcome to Gradle 3.5.

To run a build, run gradle <task> ...

To see a list of available tasks, run gradle tasks

To see a list of command-line options, run gradle --help

To see more detail about a task, run gradle help --task <task>

BUILD SUCCESSFUL

Total time: 0.554 secs

See the profiling report at: file:///home/preeti/GradleProject1/build/reports/profile/profile-2020-03-02-17-14-24.html
preeti@preeti:~/GradleProject1$
```

Build ---->report ---->profile ---->html file
Copy the file and paste in chrome

# Profile report

Profiled build: help

Started on: 2020/03/02 - 17:14:24

**Summary**  Configuration  Dependency Resolution  Task Execution

| Description | Duration |
|---|---|
| Total Build Time | 0.555s |
| Startup | 0.463s |
| Settings and BuildSrc | 0.001s |
| Loading Projects | 0.002s |
| Configuring Projects | 0.081s |
| Task Execution | 0.001s |

Generated by Gradle 3.5 at 2 Mar, 2020 5:14:24 PM