

Maven Exercises' Answers

1. Add a maven dependency and its related repository URL.

```
<dependencies>
  <dependency>
    <!-- https://mvnrepository.com/artifact/junit/junit -->
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>4.12</version>
  </dependency>
</dependencies>
```

2. Add a new repository in the pom.xml and use its dependencies.

```
<repositories>
  <repository>
    <id>spring-milestone</id>
    <name>Spring Milestones</name>
    <url>http://repo.spring.io/libs-milestone</url>
  </repository>
</repositories>

<dependencies>
  <dependency>
    <!-- https://mvnrepository.com/artifact/junit/junit -->
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>4.12</version>
  </dependency>

  <dependency>
    <groupId>org.springframework.android</groupId>
    <artifactId>spring-android-rest-template</artifactId>
    <version>${org.springframework.android-version}</version>
  </dependency>
</dependencies>
```

3. Using JAR plugin, make changes in the pom.xml to make the jar executable. Using `java -jar JAR_NAME`, the output should be printed as 'Hello World'

```
nayan@ttnpl-5890:~/eclipse-workspace/first-maven-project/target$ java -jar first-maven-project-0.0.1-SNAPSHOT.jar
Hello World
nayan@ttnpl-5890:~/eclipse-workspace/first-maven-project/target$
```

Please refer to the “first-maven-project-0.0.1-SNAPSHOT.jar” file

4. Differentiate between the different dependency scopes: compile, runtime, test, provided using different dependencies being defined in your pom.xml.

```
<dependencies>
  <dependency>
    <!-- https://mvnrepository.com/artifact/junit/junit -->
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>4.12</version>
    <scope>test</scope>
  </dependency>

  <dependency>
    <groupId>commons-lang</groupId>
    <artifactId>commons-lang</artifactId>
    <version>2.6</version>
    <scope>compile</scope>
  </dependency>

  <dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>servlet-api</artifactId>
    <version>2.5</version>
    <scope>provided</scope>
  </dependency>

  <dependency>
    <groupId>mysql</groupId>
    <artifactId>mysql-connector-java</artifactId>
    <version>6.0.6</version>
    <scope>runtime</scope>
  </dependency>
</dependencies>
```

5. Create a multi-module project. Run package command at the top level to make jar of every module.

Please refer to “multi-module-maven-project” for the project sample and jar files

```
[INFO] multi-module-maven-project ..... SUCCESS [ 0.002 s]
[INFO] business ..... SUCCESS [ 0.488 s]
[INFO] data ..... SUCCESS [ 0.021 s]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 0.566 s
[INFO] Finished at: 2022-02-23T18:40:51+05:30
[INFO] -----
```