

BUILD AND RELEASE MANAGEMENT LAB FILE

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COURSE : Btech CSE DevOps(Semester –4th) (B1)

Experiment 1

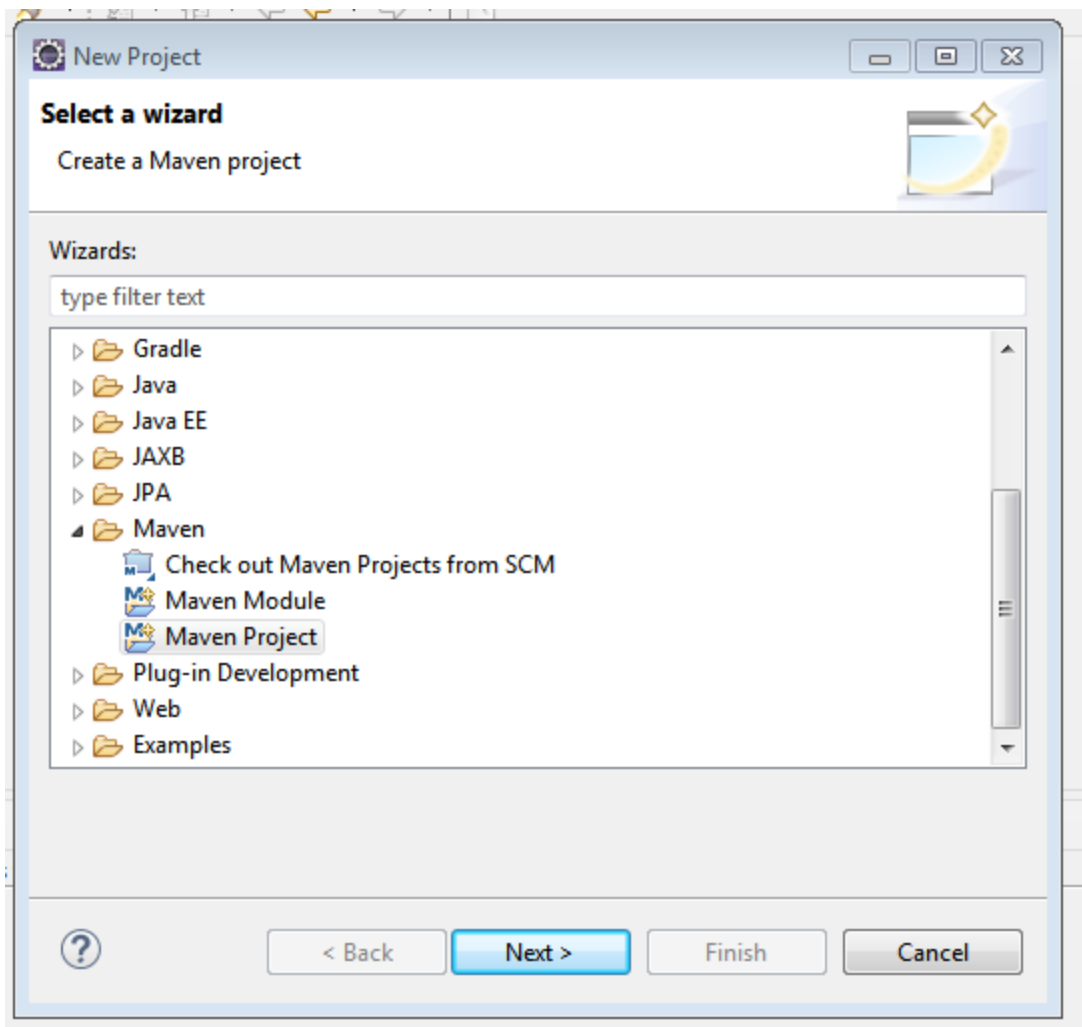
SUBMITTED TO: Dr. Hitesh Kumar Sharma

OBJECTIVE

- 1.To create a Maven project and create a Java class in it.
- 2.Run the clean,compile and finally,install command to build the jar file.
3. Create a Java project and create a Java class in it.
- 4.Import the existing jar file in Java project and use it in Java class created in Java project.

IMPLEMENTATION

- Creating Maven project



New Maven Project

New Maven project
Configure project

Artifact

Group Id: MavenProject

Artifact Id: HimanshuGupta

Version: 0.0.1-SNAPSHOT

Packaging: jar

Name:

Description:

Parent Project

Group Id:

Artifact Id:

Version: Browse... Clear

Advanced

? < Back Next > Finish Cancel

- Creating a Java class

New Java Class

Java Class

⚠ The use of the default package is discouraged.

Source folder: HimanshuGupta/src/main/java Browse...

Package: (default) Browse...

☐ Enclosing type: Browse...

Name: ClassInMaven

Modifiers: ☒ public ☐ package ☐ private ☐ protected
☐ abstract ☐ final ☐ static

Superclass: java.lang.Object Browse...

Interfaces: Add...
Remove

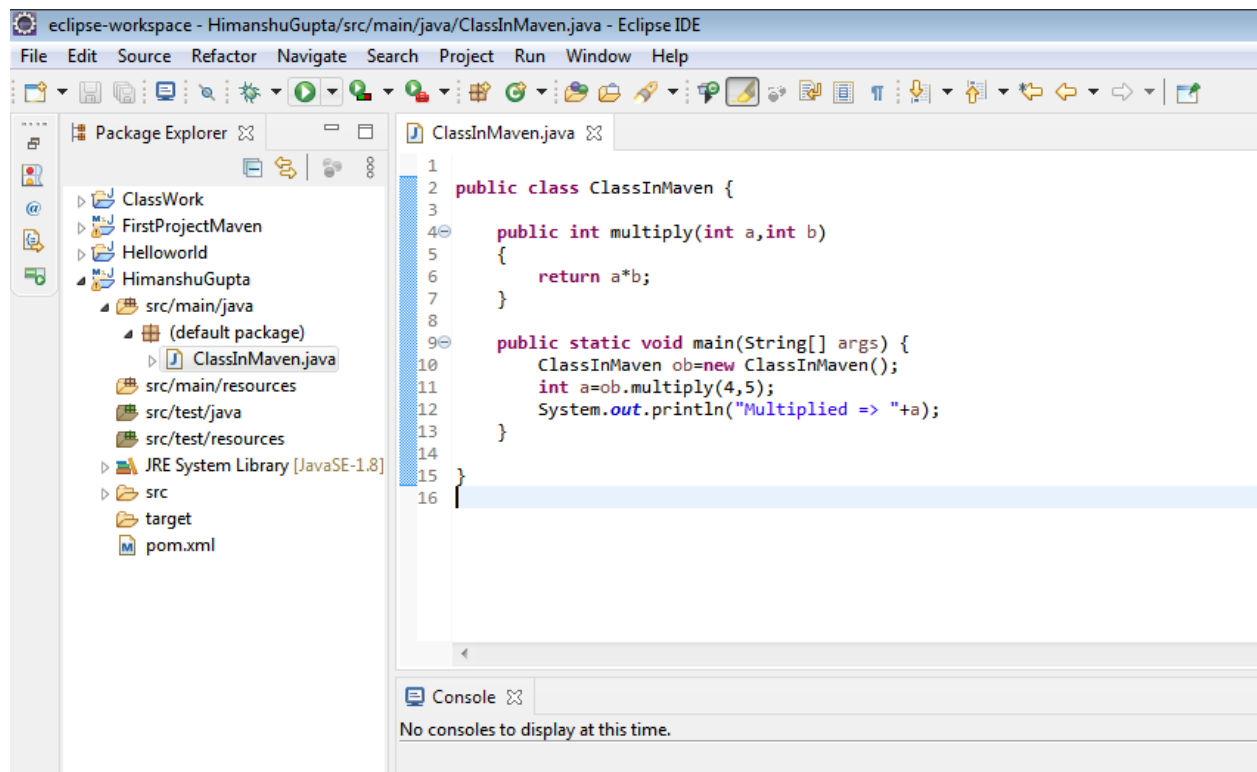
Which method stubs would you like to create?

☐ public static void main(String[] args)
☐ Constructors from superclass
☒ Inherited abstract methods

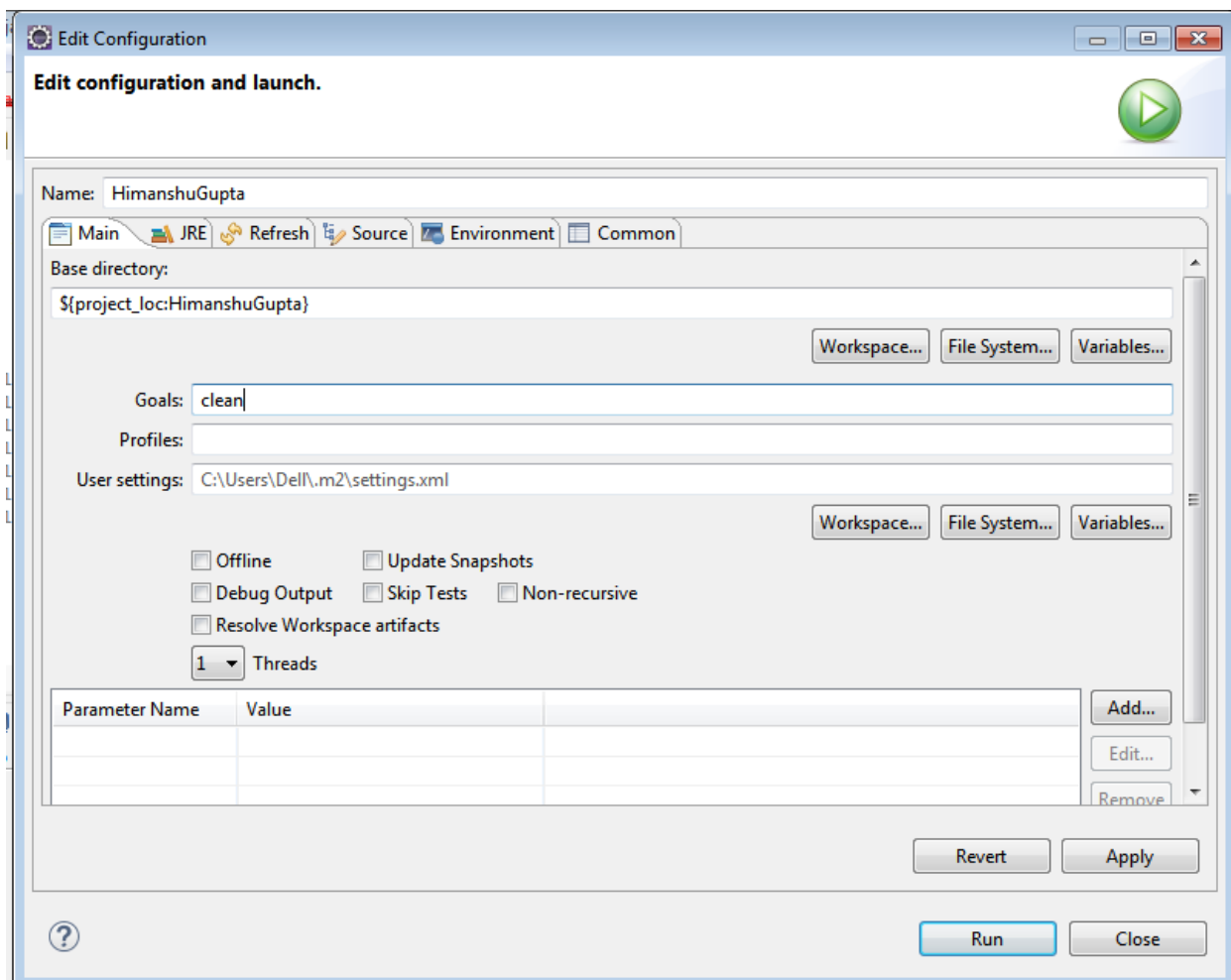
Do you want to add comments? (Configure templates and default value [here](#))
☐ Generate comments

? Finish Cancel

- Program in Java class



- Running the clean command

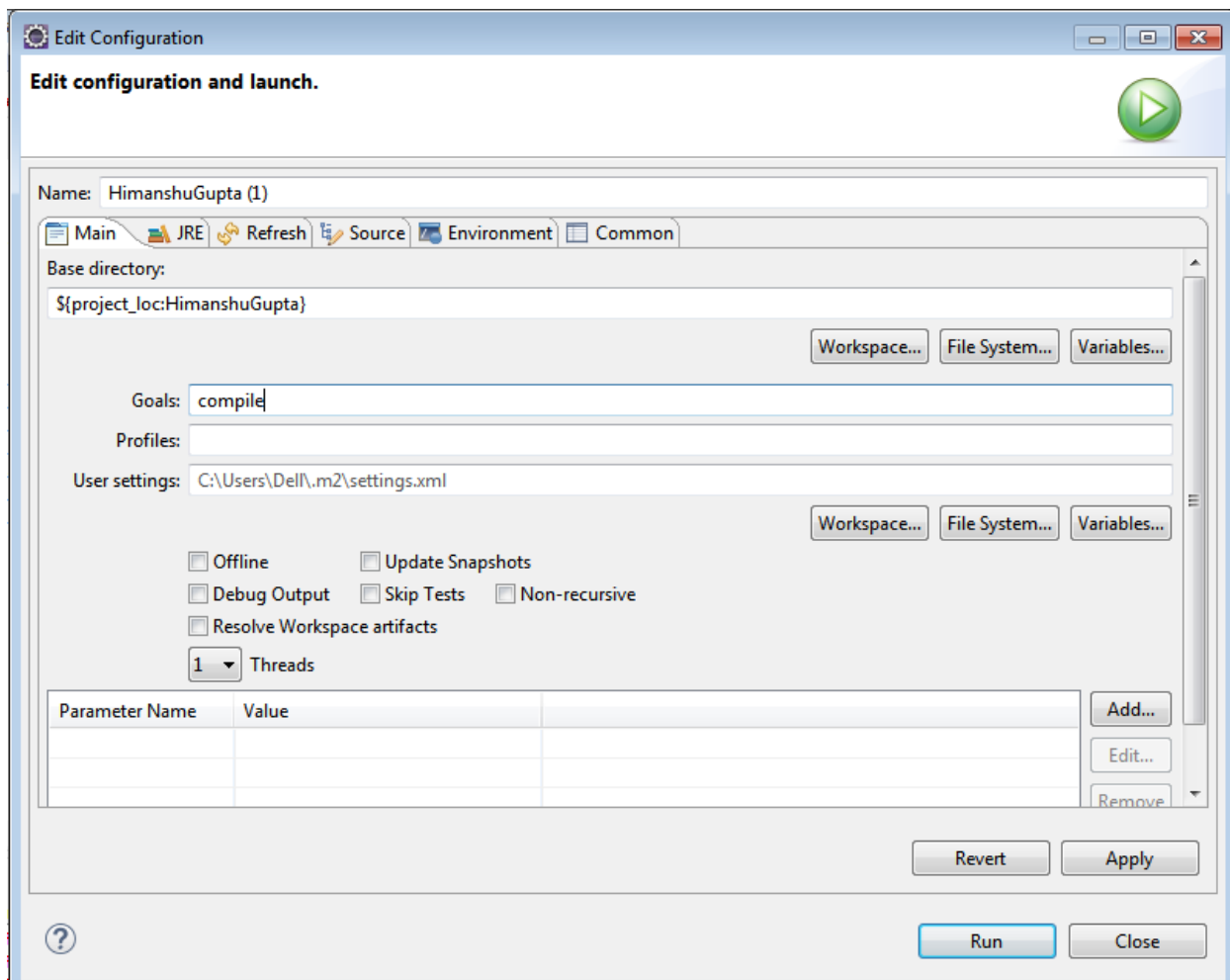


```

Console
<terminated> HimanshuGupta [Maven Build] C:\Program Files\Java\jdk-11.0.9\bin\javaw.exe (Jan 21, 2021, 10:10:47 AM - 10:10:58 AM)
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Program%20Files/eclipse/plugins/org.eclipse.m2e.maven.runtime.slf4j.simple_1.16.0.20200610-1735/jars/slf4j-simple-1.7.32.jar]
SLF4J: Found binding in [file:/C:/Program%20Files/eclipse/configuration/org.eclipse.osgi/5/0/.cp/org.slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.SimpleLoggerFactory]
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Program%20Files/eclipse/plugins/org.eclipse.m2e.maven.runtime.slf4j.simple_1.16.0.20200610-1735/jars/slf4j-simple-1.7.32.jar]
SLF4J: Found binding in [file:/C:/Program%20Files/eclipse/configuration/org.eclipse.osgi/5/0/.cp/org.slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.SimpleLoggerFactory]
[INFO] Scanning for projects...
[INFO]
[INFO] -----< MavenProject:HimanshuGupta >-----
[INFO] Building HimanshuGupta 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ HimanshuGupta ---
[INFO] Deleting C:\Users\Dell\eclipse-workspace\HimanshuGupta\target
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 0.811 s
[INFO] Finished at: 2021-01-21T10:10:58+05:30
[INFO]

```

- Running the compile command



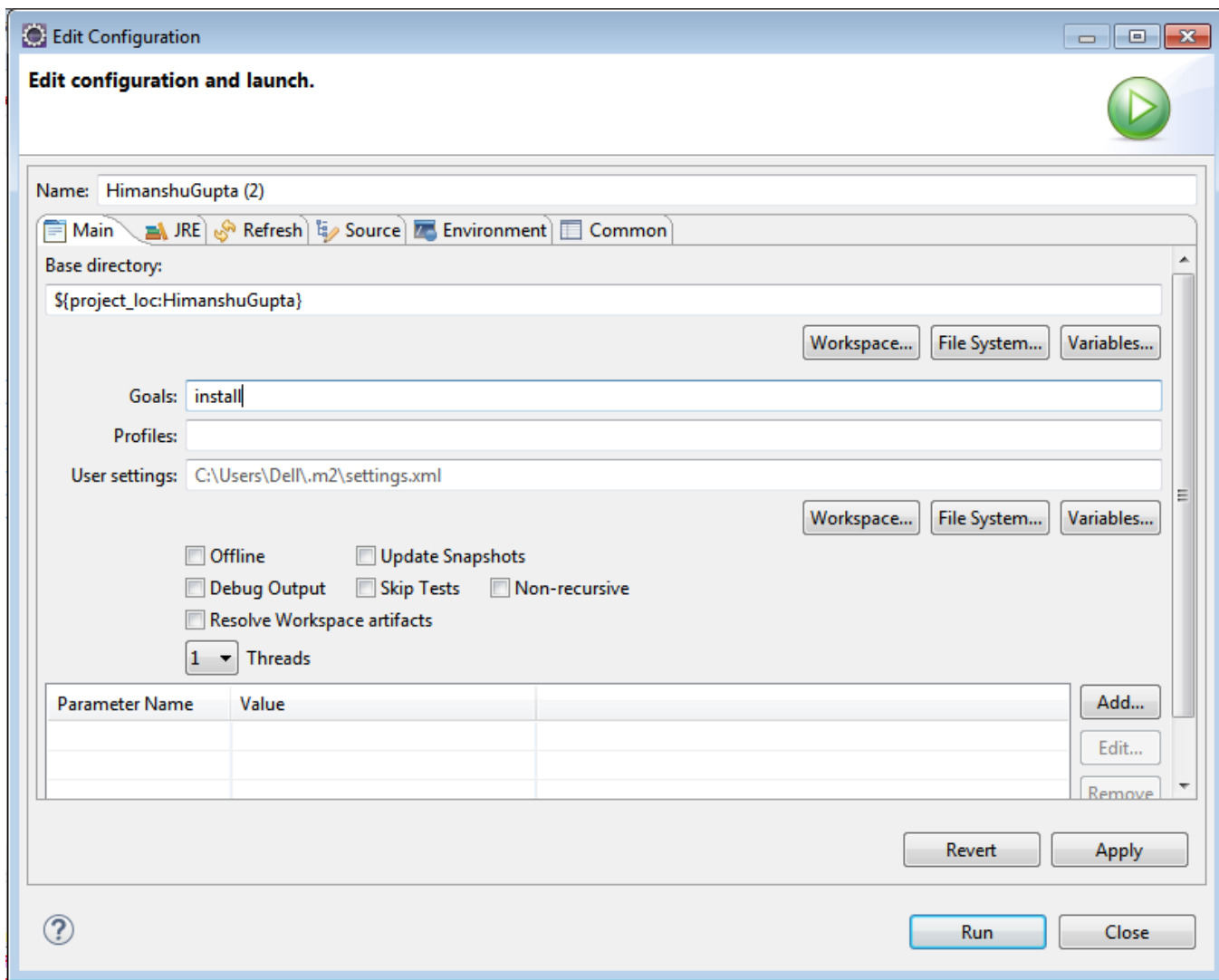
```
<terminated> HimanshuGupta (1) [Maven Build] C:\Program Files\Java\jdk-11.0.9\bin\javaw.exe (Jan 21, 2021, 10:13:02 AM – 10:13:13 AM)
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Program%20Files/eclipse/plugins/org.eclipse.m2e.maven.runtime.slf4j.simple_1.16.0.20200610-1735/jars/sl4j-simple-1.7.0.jar!/org.slf4j.impl.StaticLoggerBinder.class]
SLF4J: Found binding in [file:/C:/Program%20Files/eclipse/configuration/org.eclipse.osgi/5/0/.cp/org.slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.SimpleLoggerFactory]
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Program%20Files/eclipse/plugins/org.eclipse.m2e.maven.runtime.slf4j.simple_1.16.0.20200610-1735/jars/sl4j-simple-1.7.0.jar!/org.slf4j.impl.StaticLoggerBinder.class]
SLF4J: Found binding in [file:/C:/Program%20Files/eclipse/configuration/org.eclipse.osgi/5/0/.cp/org.slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.SimpleLoggerFactory]
[INFO] Scanning for projects...
[INFO] -----< MavenProject:HimanshuGupta >-----
[INFO] Building HimanshuGupta 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ HimanshuGupta ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ HimanshuGupta ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding Cp1252, i.e. build is platform dependent!
[INFO] Compiling 1 source file to C:\Users\Dell\eclipse-workspace\HimanshuGupta\target\classes
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.203 s
[INFO] Finished at: 2021-01-21T10:13:13+05:30
[INFO] -----
```

- Program and its output

```
ClassInMaven.java FirstClass.java
1
2 public class ClassInMaven {
3
4     public int multiply(int a,int b)
5     {
6         return a*b;
7     }
8
9     public static void main(String[] args) {
10         ClassInMaven ob=new ClassInMaven();
11         int a=ob.multiply(4,5);
12         System.out.println("Multiplied => "+a);
13     }
14
15 }
16

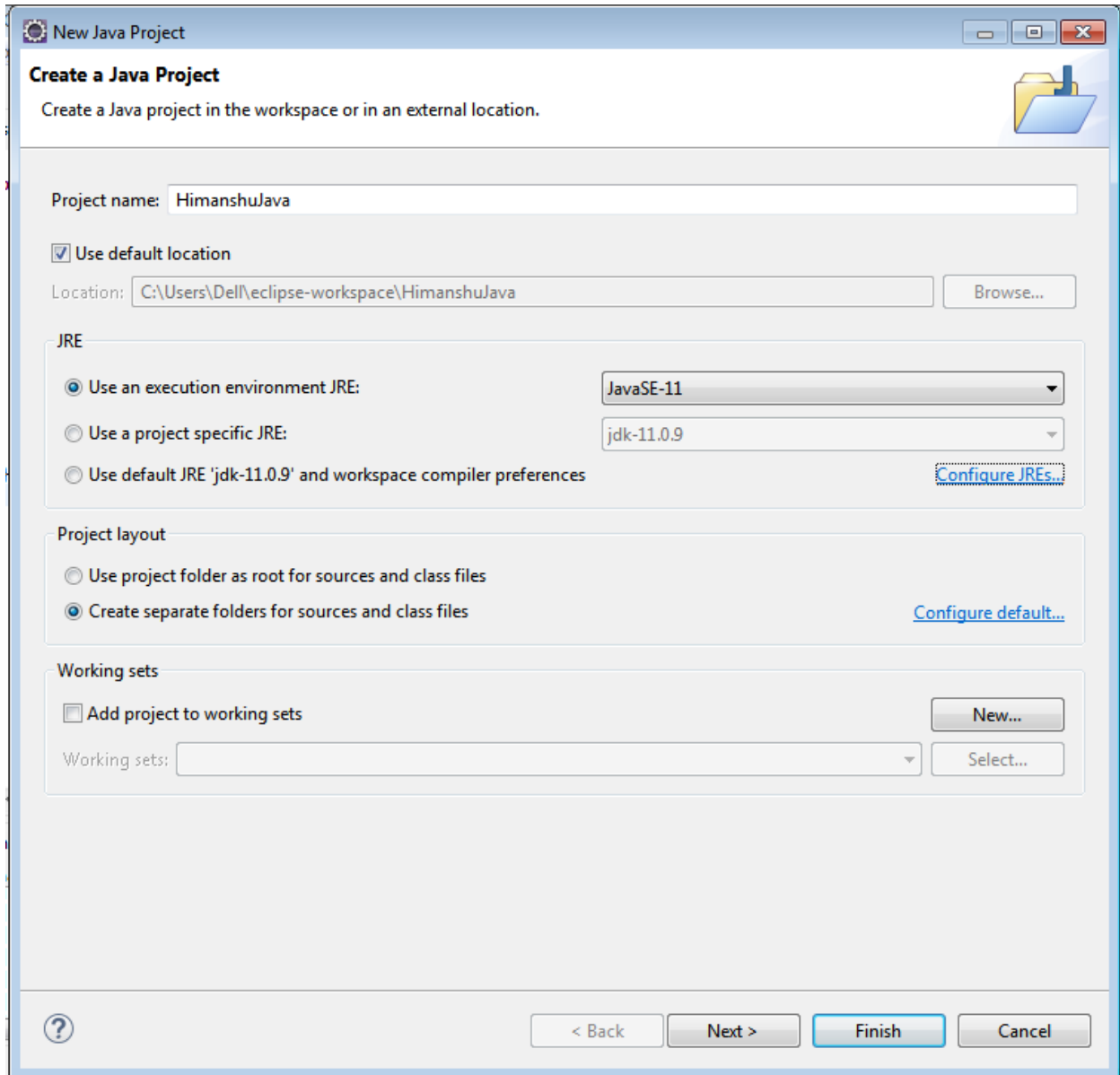
Console
<terminated> ClassInMaven [Java Application] C:\Program Files\Java\j
Multiplied => 20
```

- Running the install command



```
<terminated> HimanshuGupta (2) [Maven Build] C:\Program Files\Java\jdk-11.0.9\bin\javaw.exe (Jan 21, 2021, 10:14:56 AM - 10:15:08 AM)
[INFO] Scanning for projects...
[INFO] -----< MavenProject:HimanshuGupta >-----
[INFO] Building HimanshuGupta 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ HimanshuGupta ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ HimanshuGupta ---
[INFO] Nothing to compile - all classes are up to date
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ HimanshuGupta ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ HimanshuGupta ---
[INFO] Nothing to compile - all classes are up to date
[INFO] --- maven-surefire-plugin:2.12.4:test (default-test) @ HimanshuGupta ---
[INFO] --- maven-jar-plugin:2.4:jar (default-jar) @ HimanshuGupta ---
[INFO] Building jar: C:\Users\Dell\eclipse-workspace\HimanshuGupta\target\HimanshuGupta-0.0.1-SNAPSHOT.jar
[INFO] --- maven-install-plugin:2.4:install (default-install) @ HimanshuGupta ---
[INFO] Installing C:\Users\Dell\eclipse-workspace\HimanshuGupta\target\HimanshuGupta-0.0.1-SNAPSHOT.jar to C:\Users\Dell\.m2\repository\MavenProject\HimanshuGupta\0.0.1-SNAPSHOT\HimanshuGupta-0.0.1-SNAPSHOT.jar
[INFO] Installing C:\Users\Dell\eclipse-workspace\HimanshuGupta\pom.xml to C:\Users\Dell\.m2\repository\MavenProject\HimanshuGupta\0.0.1-SNAPSHOT\HimanshuGupta-0.0.1-SNAPSHOT.pom
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.455 s
[INFO] Finished at: 2021-01-21T10:15:08+05:30
[INFO] -----
```


- Creating a Java project



The screenshot shows the 'New Java Project' dialog box in the Eclipse IDE. The title bar reads 'New Java Project'. The main heading is 'Create a Java Project', followed by the instruction 'Create a Java project in the workspace or in an external location.' and a folder icon.

The 'Project name' field contains 'HimanshuJava'.

The 'Use default location' checkbox is checked. The 'Location' field shows 'C:\Users\Dell\eclipse-workspace\HimanshuJava' with a 'Browse...' button to its right.

The 'JRE' section has three radio button options: 'Use an execution environment JRE:' (selected), 'Use a project specific JRE:', and 'Use default JRE 'jdk-11.0.9' and workspace compiler preferences'. The first option has a dropdown menu showing 'JavaSE-11'. The second option has a dropdown menu showing 'jdk-11.0.9'. A 'Configure JREs...' link is to the right.

The 'Project layout' section has two radio button options: 'Use project folder as root for sources and class files' and 'Create separate folders for sources and class files' (selected). A 'Configure default...' link is to the right.


The 'Working sets' section has a checkbox 'Add project to working sets' which is unchecked. To its right is a 'New...' button. Below this, the 'Working sets:' label is followed by a dropdown menu and a 'Select...' button.

At the bottom, there is a help icon (?), and four buttons: '< Back', 'Next >', 'Finish' (highlighted in blue), and 'Cancel'.

- Creating a Java class in Java project

New Java Class

Java Class

 The use of the default package is discouraged.

Source folder:

Package:

☐ Enclosing type:

Name:

Modifiers: ☒ public ☐ package ☐ private ☐ protected
☐ abstract ☐ final ☐ static

Superclass:

Interfaces:

Which method stubs would you like to create?


☒ public static void main(String[] args)

☐ Constructors from superclass

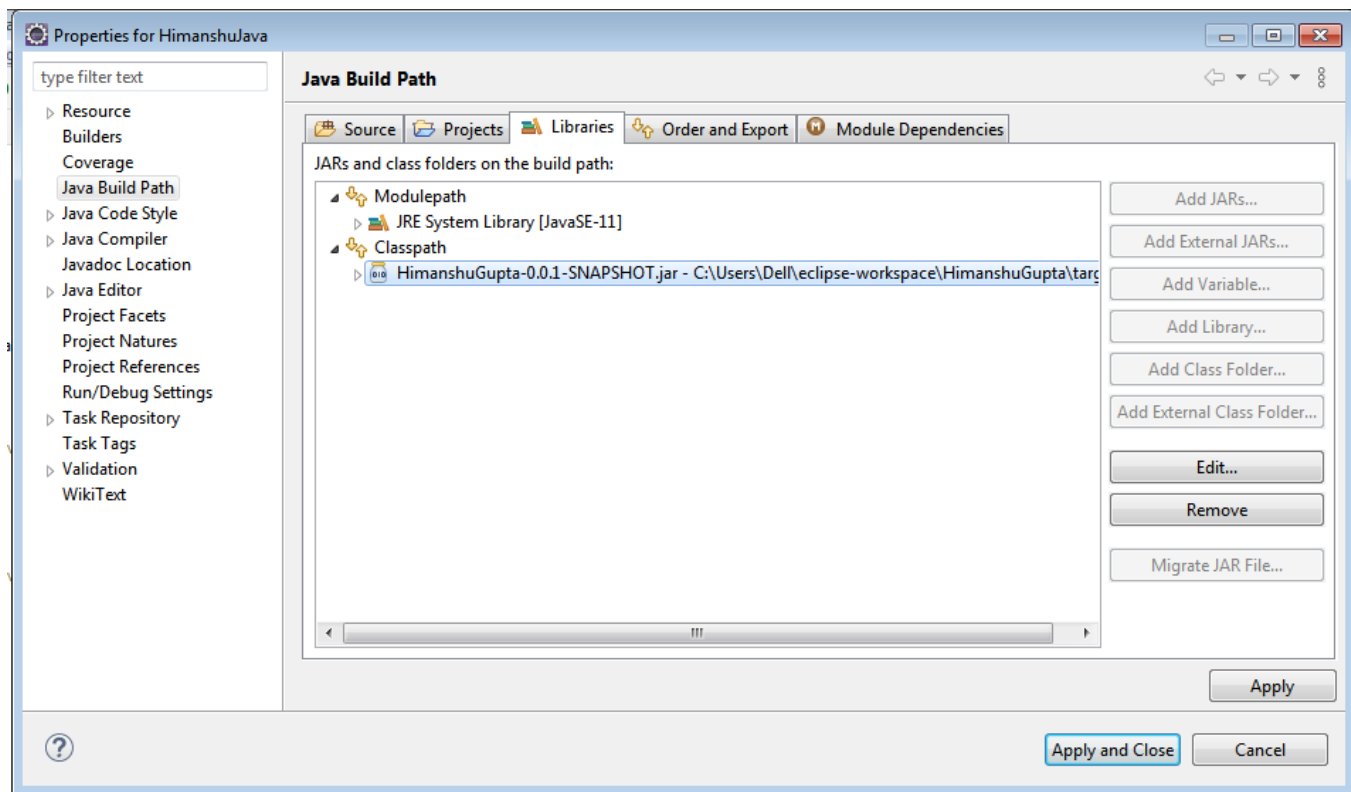
☒ Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

☐ Generate comments



- Adding the jar file in classpath of Java project



- Using the classes and its members of jar file in Java class, with output of program

