



UNIVERSITY WITH A PURPOSE

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UNIVERSITY OF PETROLEUM & ENERGY STUDIES

College of Engineering Studies

Dehradun

LAB FILE

Programme : B. Tech in Computer Science and Engineering with
Specialization in DevOps

Course : Build and Release Management Lab

No. of credits : 1

Semester : IV

Session : Jan-May 2020

Batch : 2018-2022

Faculty : Dr. Hitesh Kumar Sharma

Submitted By:

Roll No R171218016

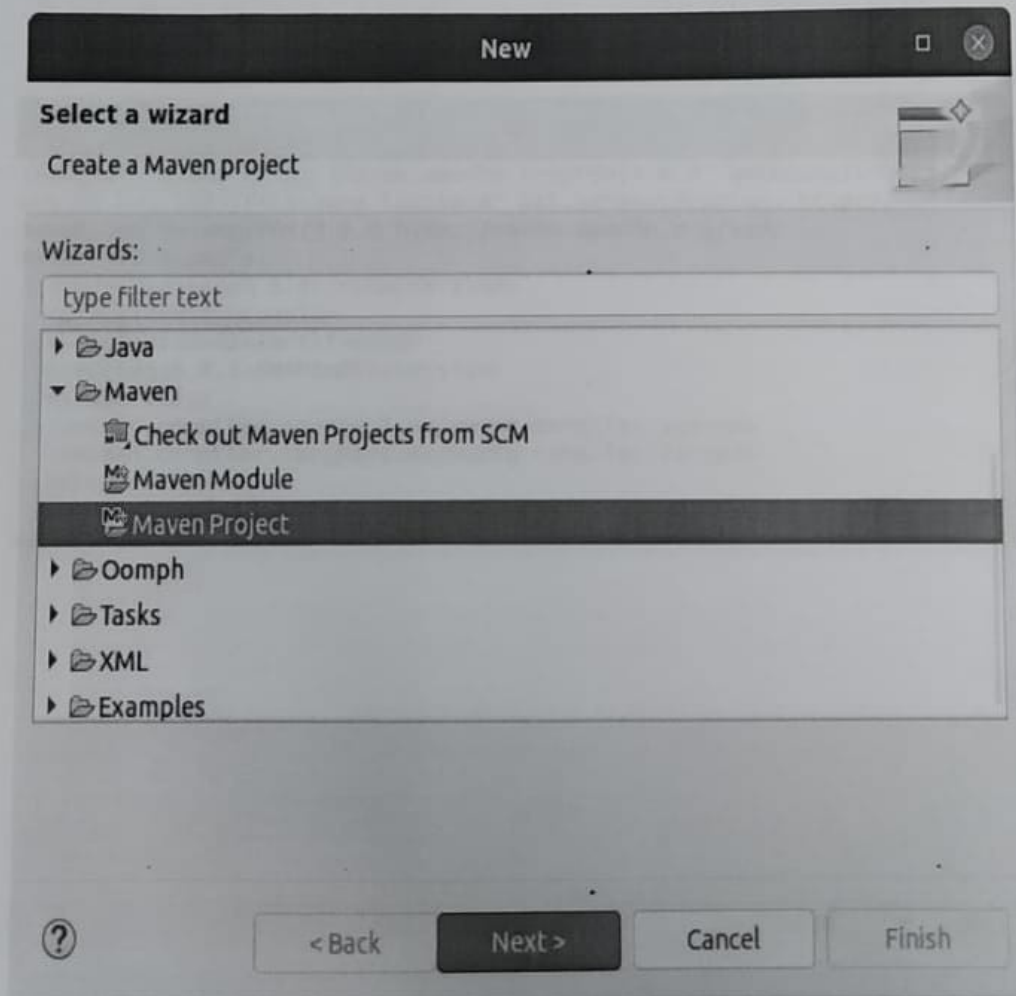
Name Aman Kumar Gupta

Faculty Signature

LAB EXERCISE 1

Aim:

1. Create a Java Project using Maven.
2. Run the following maven goals on the project:
 - Clean
 - Compile
 - Test-Compile
 - Install



Open ▾ [icon] Calculation.java Save [icon] [icon] [icon] [icon]

~/old/backup/h/StudyMaterial/2ndYear/Buil...

```
package pkg1;

public class Calculation {
    public int multiply(int a, int b)
    {
        int m=0;
        m=a*b;
        return m;
    }
}
```

Open ▾ [icon] *pom.xml Save [icon] [icon] [icon] [icon]

~/old/backup/h/StudyMaterial/2ndYear/Buil...

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://
www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://
maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/
maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <groupId>m1</groupId>
    <artifactId>A2</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <properties>
        <maven.compiler.source>1.6</maven.compiler.source>
        <maven.compiler.target>1.6</maven.compiler.target>
    </properties>
</project>
```

XML ▾ Tab Width: 8 ▾

Ln 5, Col 36 ▾

INS

Open ▾ [icon] Calculation.java Save [icon] [icon] [icon] [icon]

~/old/backup/h/StudyMaterial/2ndYear/Buil...

```
package pkg1;

public class Calculation {
    public int multiply(int a, int b)
    {
        int m=0;
        m=a*b;
        return m;
    }
}
```

Open ▾ [icon] *pom.xml Save [icon] [icon] [icon] [icon]

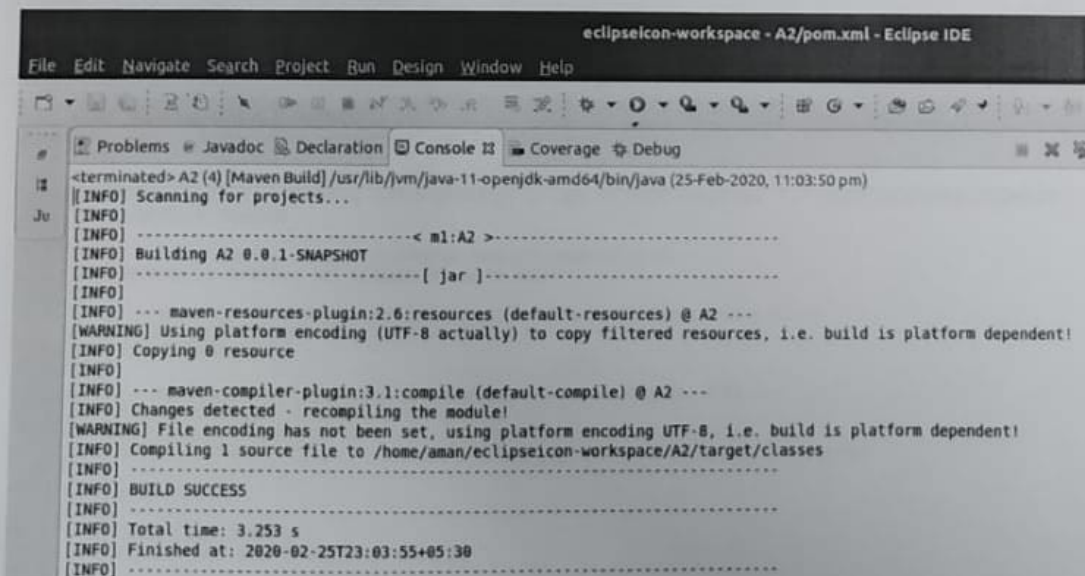
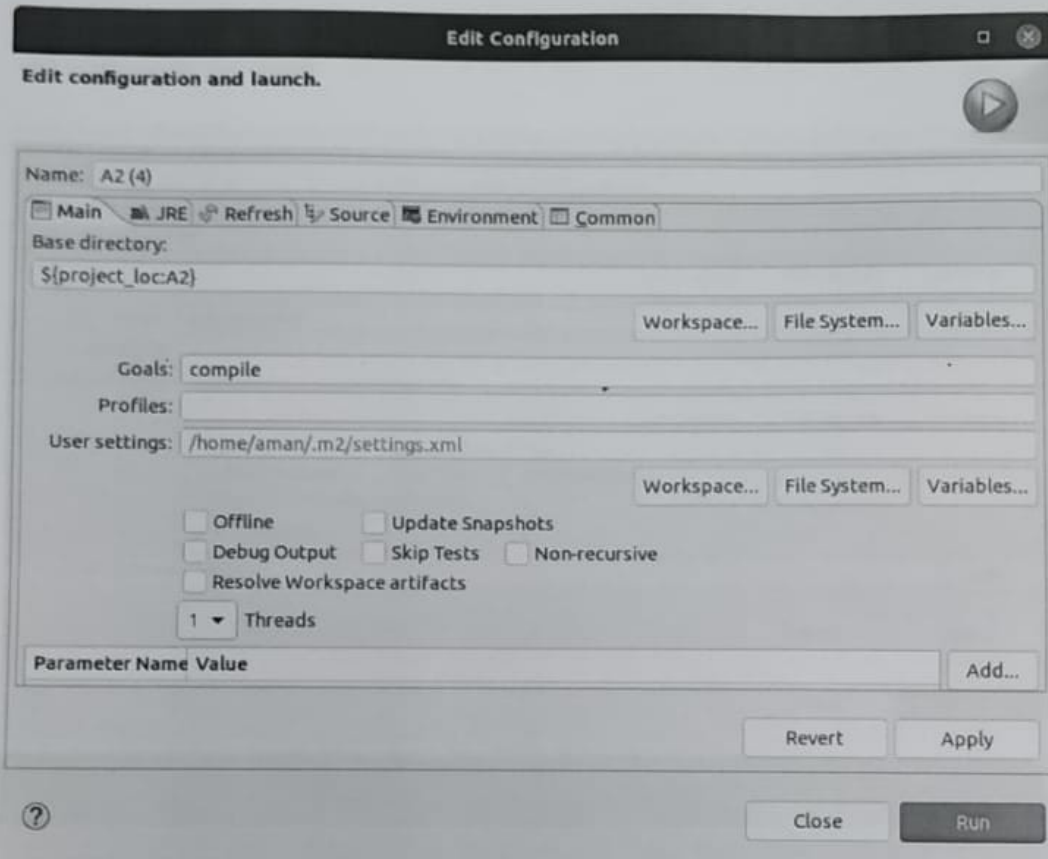
~/old/backup/h/StudyMaterial/2ndYear/Buil...

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://
www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://
maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/
maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <groupId>m1</groupId>
    <artifactId>A2</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <properties>
        <maven.compiler.source>1.6</maven.compiler.source>
        <maven.compiler.target>1.6</maven.compiler.target>
    </properties>
</project>
```

XML ▾ Tab Width: 8 ▾

Ln 5, Col 36 ▾

INS



Edit Configuration

Edit configuration and launch.

Name: A2 (5)

Main JRE Refresh Source Environment Common

Base directory: S{project_loc:A2}

Workspace... File System... Variables...

Goals: test-compile

Profiles:

User settings: /home/aman/.m2/settings.xml

Workspace... File System... Variables...

☐ Offline ☐ Update Snapshots

☐ Debug Output ☐ Skip Tests ☐ Non-recursive

☐ Resolve Workspace artifacts

1 Threads

Parameter Name	Value

Add...

Revert Apply

Close Run

eclipseicon-workspace - A2/pom.xml - Eclipse IDE

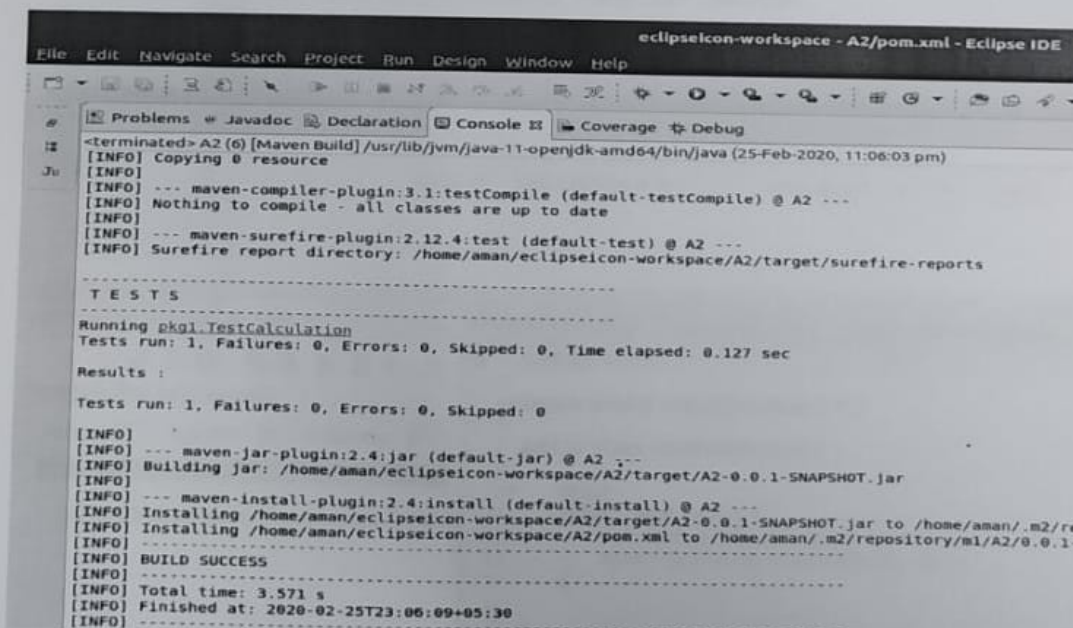
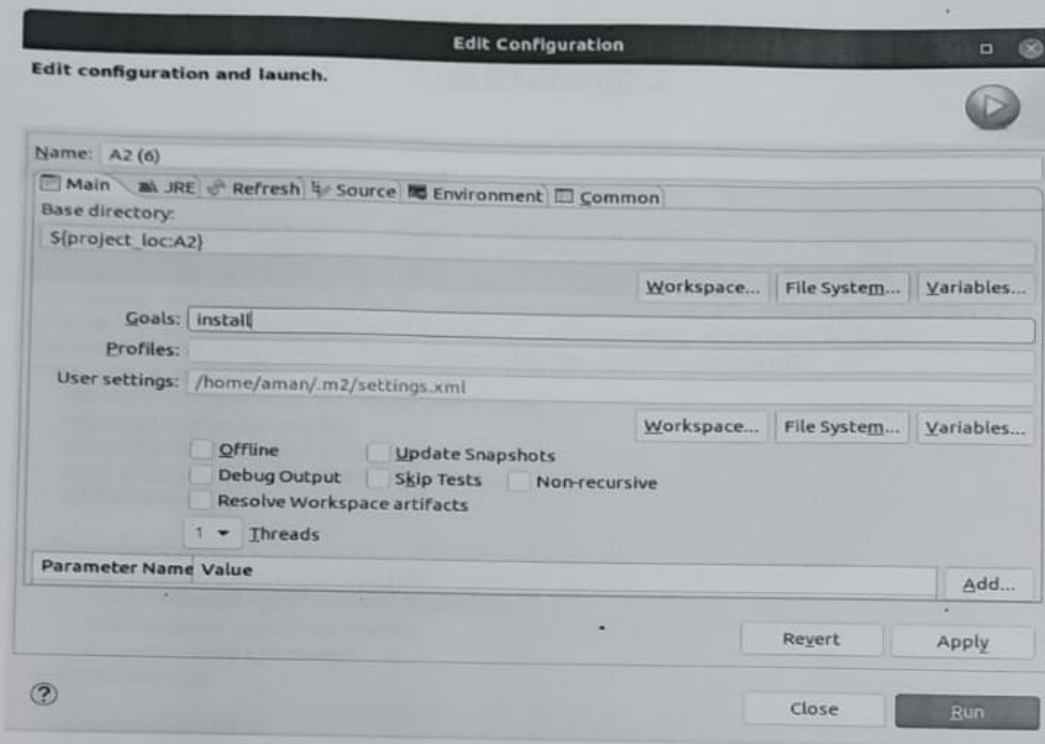
File Edit Navigate Search Project Run Design Window Help

Problems Javadoc Declaration Console Coverage Debug

```

<terminated> A2 (5) [Maven Build] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (25-Feb-2020, 11:04:26 pm)
[INFO] Scanning for projects...
[INFO]
[INFO] -----< m1:A2 >-----
[INFO] Building A2 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ A2 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ A2 ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ A2 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ A2 ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 1 source file to /home/aman/eclipseicon-workspace/A2/target/test-classes
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 2.606 s
[INFO] Finished at: 2020-02-25T23:04:31+05:30
[INFO]

```

LAB EXERCISE 2

Aim: Unit Testing using Junit tool

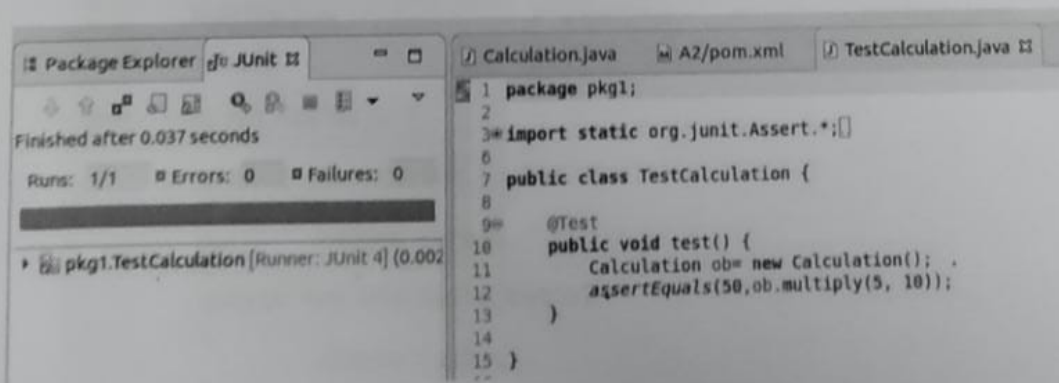


```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>m1</groupId>
  <artifactId>A2</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <dependencies>

    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.12</version>
      <scope>test</scope>
    </dependency>

  </dependencies>
  <properties>
    <maven.compiler.source>1.6</maven.compiler.source>
    <maven.compiler.target>1.6</maven.compiler.target>
  </properties>
</project>
```

XML Tab Width: 8 Ln 1, Col 1 INS



Package Explorer JUnit

Finished after 0.037 seconds

Runs: 1/1 Errors: 0 Failures: 0

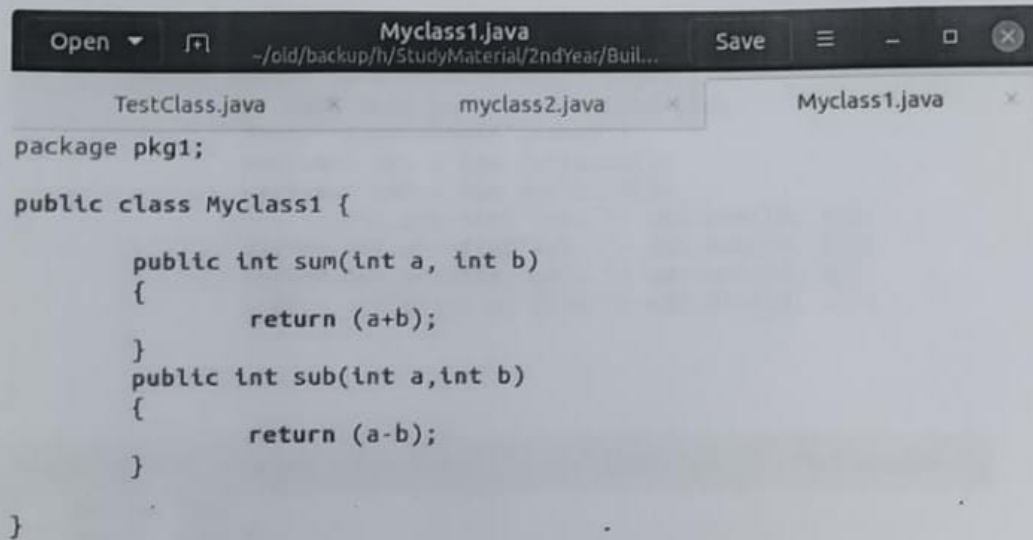
pkg1.TestCalculation [Runner: JUnit 4] (0.002)

```
1 package pkg1;
2
3 import static org.junit.Assert.*;
4
5
6 public class TestCalculation {
7
8
9     @Test
10     public void test() {
11         Calculation ob= new Calculation();
12         assertEquals(50,ob.multiply(5, 10));
13     }
14
15 }
```


LAB EXERCISE 3

Aim: Maven Build and usage in other Java Project

1. Create a Build of java project using maven.
2. Use that build in some other Java Project.

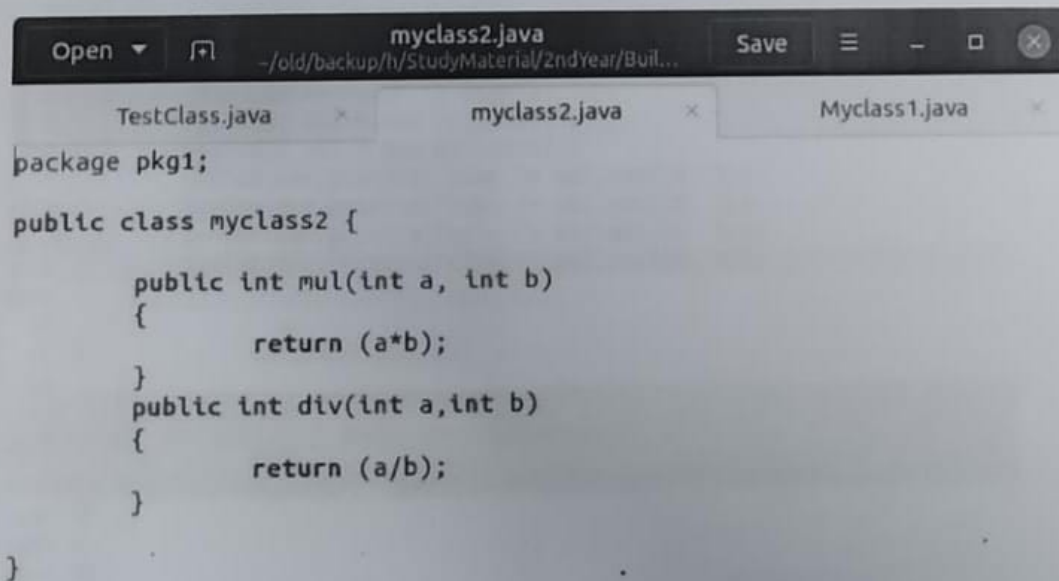


The screenshot shows an IDE window titled "Myclass1.java" with a file path of "~/old/backup/h/StudyMaterial/2ndYear/Buil...". The window contains the following Java code:

```
package pkg1;

public class Myclass1 {

    public int sum(int a, int b)
    {
        return (a+b);
    }
    public int sub(int a,int b)
    {
        return (a-b);
    }
}
```



The screenshot shows an IDE window titled "myclass2.java" with a file path of "~/old/backup/h/StudyMaterial/2ndYear/Buil...". The window contains the following Java code:

```
package pkg1;

public class myclass2 {

    public int mul(int a, int b)
    {
        return (a*b);
    }
    public int div(int a,int b)
    {
        return (a/b);
    }
}
```

Open ▾ TestClass.java Save

~/old/backup/h/StudyMaterial/2ndYear/Buil...

TestClass.java myclass2.java MyClass1.java

```
package pkg2;
import pkg1.*;

public class TestClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        @SuppressWarnings("unused")
        MyClass1 ob1 = new MyClass1();
        myclass2 ob2 = new myclass2();
        System.out.println("sum= " + ob1.sum(10, 5));
        System.out.println("sub= " + ob1.sub(10, 5));
        System.out.println("mul= " + ob2.mul(10, 5));
        System.out.println("div= " + ob2.div(10, 5));
    }
}
```

myclass2.java brm_batch1_lab3 module-info.jav TestClass.java

```
1 package pkg2;
2 import pkg1.*;
3
4 public class TestClass {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         @SuppressWarnings("unused")
9         MyClass1 ob1 = new MyClass1();
10        myclass2 ob2 = new myclass2();
11        System.out.println("sum= " + ob1.sum(10, 5));
12        System.out.println("sub= " + ob1.sub(10, 5));
13        System.out.println("mul= " + ob2.mul(10, 5));
14        System.out.println("div= " + ob2.div(10, 5));
15    }
16
17 }
18
```

Problems Javadoc Declaration Console

<terminated> TestClass [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (14

sum= 15
sub= 5
mul= 50
div= 2

LAB EXERCISE 4

Aim:

1. Install and Manage Maven Plugin
2. Install Site Plugin and use **mvn site** command and goal for generating documents for Maven Project.

Edit Configuration

Edit configuration and launch.

Name: lab5 (4)

Main JRE Refresh Source Environment Common

Base directory: \${project_loc:lab5}

Workspace... File System... Variables...

Goals: site

Profiles:

User settings: /home/aman/.m2/settings.xml

Workspace... File System... Variables...

☐ Offline ☐ Update Snapshots

☐ Debug Output ☐ Skip Tests ☐ Non-recursive

☐ Resolve Workspace artifacts

1 Threads

Parameter Name	Value
----------------	-------

Add...

Revert Apply

Close Run

Problems Javadoc Declaration Console Coverage Debug

```

<terminated> lab5 (3) [Maven Build] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (25-Feb-2020, 11:37:31 pm)
[INFO] Scanning for projects...
[INFO]
[INFO] -----< devops1:lab5 >-----
[INFO] Building lab5 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-site-plugin:3.7.1:site (default-site) @ lab5 ---
[WARNING] Report plugin org.apache.maven.plugins:maven-project-info-reports-plugin has an empty version.
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[INFO] configuring report plugin org.apache.maven.plugins:maven-project-info-reports-plugin:3.0.0
[INFO] 15 reports detected for maven-project-info-reports-plugin:3.0.0: ci-management, dependencies, dependency-info
[INFO] Rendering site with default locale English (en)
[INFO] Relativizing decoration links with respect to localized project URL: http://maven.apache.org
[INFO] Rendering content with org.apache.maven.skins:maven-default-skin:jar:1.2 skin.
[INFO] Generating "Dependencies" report --- maven-project-info-reports-plugin:3.0.0:dependencies
[INFO] Generating "Dependency Information" report --- maven-project-info-reports-plugin:3.0.0:dependency-info
[INFO] Generating "About" report --- maven-project-info-reports-plugin:3.0.0:index
[INFO] Generating "Plugin Management" report --- maven-project-info-reports-plugin:3.0.0:plugin-management
[INFO] Generating "Plugins" report --- maven-project-info-reports-plugin:3.0.0:plugins
[INFO] Generating "Summary" report --- maven-project-info-reports-plugin:3.0.0:summary
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 7.511 s
[INFO] Finished at: 2020-02-25T23:37:40+05:30
[INFO]

```

Open pom.xml

```

~(old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab4
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>devops1</groupId>
  <artifactId>lab5</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <packaging>jar</packaging>
  <build>

    <pluginManagement>

    <plugins>

    <plugin>

    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-site-plugin</artifactId>
    <version>3.7.1</version>

  </plugin>
</plugins>
</pluginManagement>
</build>

  <name>lab5</name>
  <url>http://maven.apache.org</url>

  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  </properties>

```

Activities Eclipse Feb 21 14:35

eclipsekon-workspace - file:/home/aman/eclipsekon-workspace/lab5/target/site/dependencies.html - Eclipse IDE

File Edit Navigate Search Project Run Window Help

MonthName.java lab5/pom.xml lab5 - Project Dependencies


file:/home/aman/eclipsekon-workspace/lab5/target/site/dependencies.html

lab5

Last Published: 2023-02-21 | Version: 0.0.1-SNAPSHOT

Project Documentation

- Project Information
- Dependencies
- Dependency Information
- About
- Plugin Management
- Plugins
- Summary

Build by  Maven

Project Dependencies

test

The following is a list of test dependencies for this project. These dependencies are only required to compile and run unit tests for the application:

GroupId	ArtifactId	Version	Type	Licenses
junit	junit	3.8.1	jar	Common Public License Version 1.0

Project Transitive Dependencies

No transitive dependencies are required for this project.

Project Dependency Graph

Dependency Tree

file:/home/aman/eclipsekon-workspace/lab5/target/site/plugin-management.html

Activities Eclipse Feb 21 14:35

eclipsekon-workspace - file:/home/aman/eclipsekon-workspace/lab5/target/site/summary.html - Eclipse IDE

File Edit Navigate Search Project Run Window Help

MonthName.java lab5/pom.xml lab5 - Project Dependencies lab5 - About lab5 - Project Summary


file:/home/aman/eclipsekon-workspace/lab5/target/site/summary.html

lab5

Last Published: 2023-02-21 | Version: 0.0.1-SNAPSHOT

Project Documentation

- Project Information
- Dependencies
- Dependency Information
- About
- Plugin Management
- Plugins
- Summary

Build by  Maven

Project Summary

Project Information

Field	Value
Name	lab5
Description	-
Homepage	http://maven.apache.org

Project Organization

This project does not belong to an organization.

Build Information

Field	Value
GroupId	devops1
ArtifactId	lab5


































Experiment 5

Aim: Working with Maven Repository

1. Add Central Repository (Hibernate)
2. Add Remote Repository (Atlassian Mail)

```
1 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XM
2   <modelVersion>4.0.0</modelVersion>
3   <groupId>upes.devops</groupId>
4   <artifactId>BRM_Remote</artifactId>
5   <version>0.0.1-SNAPSHOT</version>
6
7 <dependencies>
8 <dependency>
9   <groupId>org.hibernate</groupId>
10  <artifactId>hibernate-core</artifactId>
11  <version>5.4.14.Final</version>
12 </dependency>
13
14 <dependency>
15   <groupId>com.atlassian.mail</groupId>
16   <artifactId>atlassian-mail</artifactId>
17   <version>4.0.6</version>
18 </dependency>
19
20 </dependencies>
21 <repositories>
22 <repository>
23 <id>atlassian</id>
24 <name>Atlassian Mail </name>
25 <url>https://maven.atlassian.com/content/repositories/atlassian-public/ </url>
26 </repository>
27 </repositories>
28
```


▼ Maven Dependencies

- >  hibernate-core-5.4.14.Final.jar - C:\Users\Lenovo\.m2\repository\org\hi
- >  jboss-logging-3.3.2.Final.jar - C:\Users\Lenovo\.m2\repository\org\jbos
- >  javax.persistence-api-2.2.jar - C:\Users\Lenovo\.m2\repository\javax\pe
- >  javassist-3.24.0-GA.jar - C:\Users\Lenovo\.m2\repository\org\javassist\j
- >  byte-buddy-1.10.7.jar - C:\Users\Lenovo\.m2\repository\net\bytebuddy
- >  antlr-2.7.7.jar - C:\Users\Lenovo\.m2\repository\antlr\antlr\2.7.7
- >  jboss-transaction-api_1.2_spec-1.1.1.Final.jar - C:\Users\Lenovo\.m2\rep
- >  jandex-2.1.1.Final.jar - C:\Users\Lenovo\.m2\repository\org\jboss\jande
- >  classmate-1.5.1.jar - C:\Users\Lenovo\.m2\repository\com\fastxml\cl
- >  javax.activation-api-1.2.0.jar - C:\Users\Lenovo\.m2\repository\javax\ac
- >  dom4j-2.1.1.jar - C:\Users\Lenovo\.m2\repository\org\dom4j\dom4j\2.
- >  hibernate-commons-annotations-5.1.0.Final.jar - C:\Users\Lenovo\.m2\
- >  jaxb-api-2.3.1.jar - C:\Users\Lenovo\.m2\repository\javax\xml\bind\jax
- >  jaxb-runtime-2.3.1.jar - C:\Users\Lenovo\.m2\repository\org\glassfish\j
- >  txw2-2.3.1.jar - C:\Users\Lenovo\.m2\repository\org\glassfish\jaxb\txw.
- >  istack-commons-runtime-3.0.7.jar - C:\Users\Lenovo\.m2\repository\cc
- >  stax-ex-1.8.jar - C:\Users\Lenovo\.m2\repository\org\jvnet\staxex\stax-
- >  FastInfoset-1.2.15.jar - C:\Users\Lenovo\.m2\repository\com\sun\xml\f
- >  atlassian-mail-4.0.6.jar - C:\Users\Lenovo\.m2\repository\com\atlassiar
- >  commons-beanutils-1.6.1.jar - C:\Users\Lenovo\.m2\repository\commo
- >  commons-collections-3.1.jar - C:\Users\Lenovo\.m2\repository\commo
- >  commons-digester-1.4.1.jar - C:\Users\Lenovo\.m2\repository\commoi
- >  xml-apis-1.0.b2.jar - C:\Users\Lenovo\.m2\repository\xml-apis\xml-api
- >  commons-lang-2.4.jar - C:\Users\Lenovo\.m2\repository\commons-lar
- >  commons-logging-1.0.4.jar - C:\Users\Lenovo\.m2\repository\commor
- >  commons-io-1.4.jar - C:\Users\Lenovo\.m2\repository\commons-io\cc
- >  javax.mail-api-1.5.6.jar - C:\Users\Lenovo\.m2\repository\javax\mail\ja
- >  javax.mail-1.5.6.jar - C:\Users\Lenovo\.m2\repository\com\sun\mail\ja
- >  activation-1.1.jar - C:\Users\Lenovo\.m2\repository\javax\activation\ac
- >  slf4j-api-1.7.22.jar - C:\Users\Lenovo\.m2\repository\org\slf4j\slf4j-api\
- >  log4j-1.2.7.jar - C:\Users\Lenovo\.m2\repository\log4j\log4j\1.2.7
- >  guava-18.0.jar - C:\Users\Lenovo\.m2\repository\com\google\guava\g
- >  jsoup-1.8.3.jar - C:\Users\Lenovo\.m2\repository\org\jsoup\jsoup\1.8.3

Lab Exercise 6

Aim: Create a simple Maven Project using CLI.

```
aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6$ mvn archetype:generate -DgroupId=com.mycompany.app -DartifactId=my-app -DarchetypeArtifactId=maven-archetype-quickstart -DarchetypeVersion=1.4 -DinteractiveMode=false
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-site-plugin/3.3/maven-site-plugin-3.3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-site-plugin/3.3/maven-site-plugin-3.3.pom (21 kB at 6.9 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-antrun-plugin/1.3/maven-antrun-plugin-1.3.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-antrun-plugin/1.3/maven-antrun-plugin-1.3.jar (24 kB at 42 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-assembly-plugin/2.2-beta-5/maven-assembly-plugin-2.2-beta-5.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-assembly-plugin/2.2-beta-5/maven-assembly-plugin-2.2-beta-5.jar (209 kB at 145 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-dependency-plugin/2.8/mav
```

```
Open App.java Save
~/old/backup/...

package com.mycompany.app;

/**
 * Hello world!
 */
public class App
{
    public static void main( String[] args )
    {
        System.out.println( "Hello World!" );
    }
}

Java Tab Width: 8 Ln 1, Col 1 INS
```



```

aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ mvn package
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of this type.
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
[INFO] -----
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.108 s - in com.mycompany.app.AppTest
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-jar) @ my-app ---
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-shared-utils/3.0.1/maven-shared-utils-3.0.1.jar (154 kB at 198 kB/s)
[INFO] Building jar: /home/aman/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app/target/my-app-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 42.319 s
[INFO] Finished at: 2020-04-01T11:05:49+05:30
[INFO] -----
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ java -cp target/my-a

```

```

aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/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: 0.102 s - in com.mycompany.app.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-jar) @ my-app ---
[INFO] Building jar: /home/aman/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app/target/my-app-1.0-SNAPSHOT.jar
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO]
[INFO] Total time: 01:03 min
[INFO] Finished at: 2020-04-01T11:08:04+05:30
[INFO]
[INFO] -----
aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ mvn site
WARNING: An illegal reflective access operation has occurred

```

```
aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
[INFO] Total time: 42.319 s
[INFO] Finished at: 2020-04-01T11:05:49+05:30
[INFO] -----
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ java -cp target/my-app-1.0-SNAPSHOT.jar com.mycompany.app.AppHello World!
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ mvn clean dependency:copy-dependencies package
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.pom (5.2 kB at 2.5 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/3.1.0/maven-clean-plugin-3.1.0.jar (30 kB at 40 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-install-plugin/2.5.2/mave
```

```
aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
aman@amanlaptop:~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app$ mvn site
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
[INFO] -----< com.mycompany.app:my-app >-----
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO] --- maven-site-plugin:3.7.1:site (default-site) @ my-app ---
[INFO] configuring report plugin org.apache.maven.plugins:maven-project-info-reports-plugin:3.0.0
[INFO] 15 reports detected for maven-project-info-reports-plugin:3.0.0: ci-management, dependencies, dependency-info, dependency-management, distribution-management, index, issue-management, licenses, mailing-lists, modules, plugin-management, plugins, scm, summary, team
[INFO] Rendering site with default locale English (en)
[INFO] Relativizing decoration links with respect to localized project URL: http://www.example.com
[INFO] Rendering content with org.apache.maven.skins:maven-default-skin:jar:1.2 skin.
[INFO] Generating "Dependencies" report --- maven-project-info-reports-plugin:3.0.0:dependencies
[INFO] Generating "Dependency Information" report --- maven-project-info-reports-plugin:3.0.0:dependency-info
```



```
aman@amanlaptop: ~/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app
[INFO] -----< com.mycompany.app:my-app >-----
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO] --- maven-site-plugin:3.7.1:site (default-site) @ my-app ---
[INFO] configuring report plugin org.apache.maven.plugins:maven-project-info-reports-plugin:3.0.0
[INFO] 15 reports detected for maven-project-info-reports-plugin:3.0.0: ci-management, dependencies, dependency-info, d
ependency-management, distribution-management, index, issue-management, licenses, mailing-lists, modules, plugin-manage
ment, plugins, scm, summary, team
[INFO] Rendering site with default locale English (en)
[INFO] Relativizing decoration links with respect to localized project URL: http://www.example.com
[INFO] Rendering content with org.apache.maven.skins:maven-default-skin:jar:1.2 skin.
[INFO] Generating "Dependencies" report --- maven-project-info-reports-plugin:3.0.0:dependencies
[INFO] Generating "Dependency Information" report --- maven-project-info-reports-plugin:3.0.0:dependency-info
[INFO] Generating "About" report --- maven-project-info-reports-plugin:3.0.0:index
[INFO] Generating "Plugin Management" report --- maven-project-info-reports-plugin:3.0.0:plugin-management
[INFO] Generating "Plugins" report --- maven-project-info-reports-plugin:3.0.0:plugins
[INFO] Generating "Summary" report --- maven-project-info-reports-plugin:3.0.0:summary
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 13.840 s
[INFO] Finished at: 2020-04-01T11:10:13+05:30
```

ActivitiesGoogle ChromeApr 2 13:11

My Blackboard Content - xmy-app - Project Dependix

File | /home/aman/old/backup/h/StudyMaterial/2ndYear/Build_and_Release_management/lab/lab6/my-app/target/site/dependencies.html

Apps Gmail YouTube Maps Translate Operating Sys... I'm Learning... srgnk/Hacker... CodeSurfer30... 2.2. PAM Confi...

my-app

Last Published: 2020-04-01 | Version: 1.0-SNAPSHOT

Project Documentation

Project Information

Dependencies

Dependency Information

About

Plugin Management

Plugins

Summary

Built by:

Project Dependencies

test

The following is a list of test dependencies for this project. These dependencies are only required to compile and run unit tests for the application:

GroupId	ArtifactId	Version	Type	Licenses
junit	junit	4.11	jar	Common Public License Version 1.0

Project Transitive Dependencies

test

The following is a list of test dependencies for this project. Transitive dependencies are the dependencies of the project dependencies.

The following is a list of test dependencies for this project. These dependencies are only required to compile and run unit tests for the application:

GroupId	ArtifactId	Version	Type	Licenses
org.hamcrest	hamcrest-core	1.3	jar	New BSD License

DCNlab-mer....pdf

Show all

Experiment 7

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left displays a project named 'exp10' with a package 'sel' containing 'first.java' and 'Web_Command.java'. The main editor shows the code for 'first.java', which is a Selenium test script. The script imports Selenium WebDriver and ChromeDriver, and defines a 'main' method that navigates to 'http://www.google.com', finds the search input field, and submits the text 'UPES'. The Console window at the bottom shows several 'Timed out receiving message' errors. To the right, a web browser window displays the Google search results for 'UPES', showing the UPES Dehradun website and various program listings.

```
1 package sel;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6
7 public class first{
8
9     public static void main (String args[]) {
10
11         System.setProperty("webdriver.chrome.driver", "C:\\chromedriver.exe");
12         WebDriver driver = new ChromeDriver();
13
14         driver.navigate().to("http://www.google.com");
15
16         driver.findElement(By.name("q")).sendKeys("UPES");
17         driver.findElement(By.name("btnK")).submit();
18     }
19 }
20
21 }
```

Problems: <terminated> first [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (21-Apr-2020, 10:00:57 am)
[1587443526.299][SEVERE]: Timed out receiving message
[1587443526.400][SEVERE]: Timed out receiving message
[1587443526.506][SEVERE]: Timed out receiving message
[1587443526.607][SEVERE]: Timed out receiving message

Writable Smart Insert 16:56:431

UPES - Google Search
chrome.com/search?source=hp&ei=QHeeXrG4FaTSz7sPjca5IAI&q=UPES

Chrome is being controlled by automated test software.

Google
UPES

About 61,70,000 results (0.66 seconds)

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50% scholarship for International Post Graduation. Free Global In
Star Ratings. Sector-focused University. QS five-star rating. 50%
B.Tech · Undergraduate Programs · MBA · BBA · M.Tech · Postgr

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Hassle-free
focus on bu

UPES | Application Form
School i

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left displays a project named 'exp10' with a package 'sel' containing 'first.java' and 'Web_Command.java'. The main editor shows the code for 'Web_Command.java', which is a Selenium test script. The script imports Selenium WebDriver and ChromeDriver, and defines a 'main' method that navigates to 'http://www.google.com', finds the search input field, and submits the text 'UPES'. The Console window at the bottom shows the execution results, including the title 'Google', the page source length, and the verification status 'Verification Successful: Correct url is opened'. To the right, the Task List and Outline panels are visible.

```
14 driver.get(url);
15 String title = driver.getTitle();
16 int titlelength = driver.getTitle().length();
17
18 System.out.println("Title: " + title);
19 System.out.println("Title's length: " + titlelength);
20
21 String actualurl = driver.getCurrentUrl();
22
23 if(actualurl.equals("https://www.google.com/?gws_rd=ssl"))
24 {System.out.println("Verification Successful: Correct url is opened");}
25 else
26 {System.out.println("Verification Failed: Correct url is not opened");}
27
28 String pgr = driver.getPageSource();
29 int pgrsrlen= pgr.length();
30 System.out.println("Page Source's length: " + pgrsrlen);
31
32 driver.close();
33 }
34 }
35 }
36 }
37 }
```

Problems: <terminated> Web_Command [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (21-Apr-2020, 10:00:57 am)
Title: Google
Title's length: 6
Verification Successful: Correct url is opened
Page Source's length: 210979

Writable Smart Insert 33:9:975 205M of 426M

Experiment 8

Aim: Selenium IDE. Perform Automation testing using Selenium IDE for testing a web page.

The screenshot displays the Selenium IDE interface. At the top, there is a toolbar with icons for running tests, saving, and other functions. Below the toolbar is a search bar and a URL field containing "https://www.google.com". The main area shows a test suite named "Test101*" with five steps:

	Command	Target	Value
1	open	/	
2	set window size	974x1047	
3	click	name=q	
4	type	name=q	devops
5	send keys	name=q	\${KEY_ENTER}

Below the test steps, there are input fields for Command, Target, Value, and Description, each with a corresponding icon for selecting elements from the web page.

At the bottom, there is a log section with two tabs: "Log" and "Reference". The "Log" tab is selected, showing the following entries:

Log	Reference
2. setWindowRect on 974x1047 OK	18:48:12
3. click on name=q OK	18:48:12
4. type on name=q with value devops OK	18:48:13
5. sendKeys on name=q with value \${KEY_ENTER} OK	18:48:14
'Test101' completed successfully	18:48:14



devops



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About 6,66,00,000 results (0.61 seconds)

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Project: TP101*

Tests

+

▶▶

▶

⌂

⌚

↶

⏸

REC

Search tests...

https://www.google.com

	Command	Target	Value
Test101	1	open	/
Test102*	2	click	name=q
	3	type	name=q engineer
	4	click	name=btnK

Command

//

↗

Target

↶

🔍

Value

Description

Log

Reference

1. open on / OK

19:02:05

2. click on name=q OK

19:02:05

3. type on name=q with value engineer OK

19:02:06

4. click on name=btnK OK

19:02:06

'Test102' completed successfully

19:02:06



engineer



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About 4,39,00,00,000 results (0.69 seconds)

Dictionary

Search for a word



engineer

/ˌendʒɪˈniə/

See definitions in:

All

Civil Engineering

Professions

Railways

Biology

noun

1. a person who designs, builds, or maintains engines, machines, or structures.

Similar: [designer](#) [planner](#) [builder](#) [architect](#) [producer](#) [fabricator](#) [▼](#)

2. a person who controls an engine, especially on an aircraft or ship.

Similar: [engineering officer](#) [controller](#) [handler](#) [driver](#) [operator](#) [▼](#)

verb

1. design and build (a machine or structure).
"the men who engineered the tunnel"

2. skilfully arrange for (something) to occur.
"she engineered another meeting with him"

Similar: [bring about](#) [cause](#) [arrange](#) [pull off](#) [bring off](#) [fix](#) [set up](#) [▼](#)

Experiment 9

```
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[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: 0.057 s - in com.mycompany.app.AppTest
[INFO] Results:
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO] --- maven-antrun-plugin:1.1:run (default) @ my-app ---
[INFO] Executing tasks
[echo] This is Profile 1 Task
[copy] Copying 1 file to F:\2nd Year\4TH SEMESTER\Build And Release\Eclipse\DevOps\my-app\src\test
[INFO] Executed tasks
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.194 s
[INFO] Finished at: 2020-04-26T19:21:08+05:30
[INFO] -----
```

```
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---
[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: 0.064 s - in com.mycompany.app.AppTest
[INFO] Results:
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO] --- maven-antrun-plugin:1.1:run (default) @ my-app ---
[INFO] Executing tasks
[echo] This is Profile 2
[copy] Copying 1 file to F:\2nd Year\4TH SEMESTER\Build And Release\Eclipse\DevOps\my-app\src\test
[INFO] Executed tasks
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.233 s
[INFO] Finished at: 2020-04-26T19:22:25+05:30
[INFO] -----
```



```
F:\2nd Year\4TH SEMESTER\Build And Release\Eclipse\DevOps\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 F:\2nd Year\4TH SEMESTER\Build And Release\Eclipse\DevOps\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 F:\2nd Year\4TH SEMESTER\Build And Release\Eclipse\DevOps\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: 0.202 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] This is Profile 2
[INFO] Executed tasks
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 3.825 s
[INFO] Finished at: 2020-04-27T11:46:00+05:30
[INFO] -----
```

Experiment 10

Aim: Integration using GitHub Create a complete Maven project and push in GitHub repository for Continuous Integration.

Pushed every commit via a post-commit hook

The screenshot shows the GitHub repository page for 'Aman9026 / SecondYear'. The repository is currently on the 'master' branch. The file list shows several files and folders, including '.settings', 'src', 'target', '.classpath', '.project', and 'pom.xml'. The 'src' folder contains 'TestCalculation.java' and 'TEST-pkg1.TestCalculation.xml'. The 'pom.xml' file is also listed. The repository has 1 Unwatch, 6 Unstar, and 8 Forks.

The screenshot shows the GitHub user profile page for 'Aman Gupta' (Aman9026). The profile includes a bio, a location, and a list of pinned repositories. The pinned repositories are:

- FirstYear**: This repository contains the work I've done in my first year along with some study materials which I had collected. (Jupyter Notebook, 18 stars, 13 forks)
- Codezen**: Contains the solutions of all the problems I attempted in practice or competitions on Codezen. (C++, 4 stars, 1 fork)
- WhiteSpaceRemover**: Detox: Rename all the files in the system which has a white space in it's name. (Shell, 4 stars, 3 forks)
- HackerRank**: This repository is a part of the project (https://github.com/users/Aman9026/projects/3) and would contain the solutions of all the problems I attempt in practice or competitions on HackerRank. (C, 5 stars, 2 forks)
- SecondYear**: This repository contains the work I've done in my second year along with some study materials which I had collected. (HTML, 6 stars, 8 forks)
- 100DaysOfMachineLearning**: #100DaysOfML Complete tutorial of ML from basics. (3 stars)