

# **Tugas Pemograman 2**



**Nama : Fajar Muhammad F**

**NIM :4511210022**

**Fakultas Teknik Jurusan Teknik Informatika**

**Universitas Pancasila Angkatan**

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## **Daftar Isi**

<u>BAB 1</u>	<u>Daftar Isi.....</u>	<u>2</u>
<u>BAB 2</u>	<u>Kata Pengantar.....</u>	<u>3</u>
<u>BAB 3</u>	<u>Pendahuluan.....</u>	<u>4</u>
<u>BAB 4</u>	<u>Hasil Praktikum.....</u>	<u>5</u>
<u>BAB 5</u>	<u>Kesimpulan.....</u>	<u>17</u>
<u>BAB 6</u>	<u>Daftar Pustaka.....</u>	<u>17</u>

## **Kata Pengantar**

Puji syukur kami panjatkan kehadirat Allah SWT yang telah memberikan rahmat serta karunia-Nya kepada kami sehingga kami berhasil menyelesaikan Makalah ini yang alhamdulillah tepat pada waktunya yang berjudul “Tugas Pemograman 2”

Makalah ini berisikan tentang informasi tentang Pemograman yang akan penyusun buat atau yang lebih khususnya membahas Pemograman Java,dan lain-lain. Diharapkan Makalah ini dapat memberikan informasi kepada kita semua tentang Pemograman.

Kami menyadari bahwa makalah ini masih jauh dari sempurna, oleh karena itu kritik dan saran dari semua pihak yang bersifat membangun selalu kami harapkan demi kesempurnaan makalah ini.

Akhir kata, kami sampaikan terima kasih kepada semua pihak yang telah berperan serta dalam penyusunan makalah ini dari awal sampai akhir. Semoga Allah SWT senantiasa meridhai segala usaha kita. Amin.

Cibinong

13 April 2013

Fajar Muhammad F

Penyusun

## Pendahuluan

**Java** adalah bahasa pemrograman yang dapat dijalankan di berbagai komputer termasuk telepon genggam. Bahasa ini awalnya dibuat oleh James Gosling saat masih bergabung di Sun Microsystems saat ini merupakan bagian dari Oracle dan dirilis tahun 1995. Bahasa ini banyak mengadopsi sintaksis yang terdapat pada C dan C++ namun dengan sintaksis model objek yang lebih sederhana serta dukungan rutin-rutin aras bawah yang minimal. Aplikasi-aplikasi berbasis java umumnya dikompilasi ke dalam p-code (*bytecode*) dan dapat dijalankan pada berbagai Mesin Virtual Java (JVM). Java merupakan bahasa pemrograman yang bersifat umum/non-spesifik (*general purpose*), dan secara khusus didisain untuk memanfaatkan dependensi implementasi seminimal mungkin. Karena fungsionalitasnya yang memungkinkan aplikasi java mampu berjalan di beberapa platform sistem operasi yang berbeda, java dikenal pula dengan slogannya, "*Tulis sekali, jalankan di mana pun*". Saat ini java merupakan bahasa pemrograman yang paling populer digunakan, dan secara luas dimanfaatkan dalam pengembangan berbagai jenis perangkat lunak aplikasi ataupun aplikasi berbasis web.

## **Landasan Teori**

Dalam Praktikum ini Menggunakan Tools atau Aplikasi – Aplikasi dibawah ini sebagai berikut :

1. Java Development Environment
2. Apache Maven
3. Text Editor (Notepad , Geany atau Semacamnya)

## Hasil Praktikum

Praktikum 1

1)mvn archetype:create -DgroupId=p2.latihan.maven -DartifactId=lat-mvn

2)Buat Hello.java

```
package p2.latihan.maven;
```

```
/**
```

```
* Hello world!
```

```
*
```

```
*/
```

```
public class Hello
```

```
{
```

```
    public static void main( String[] args )
```

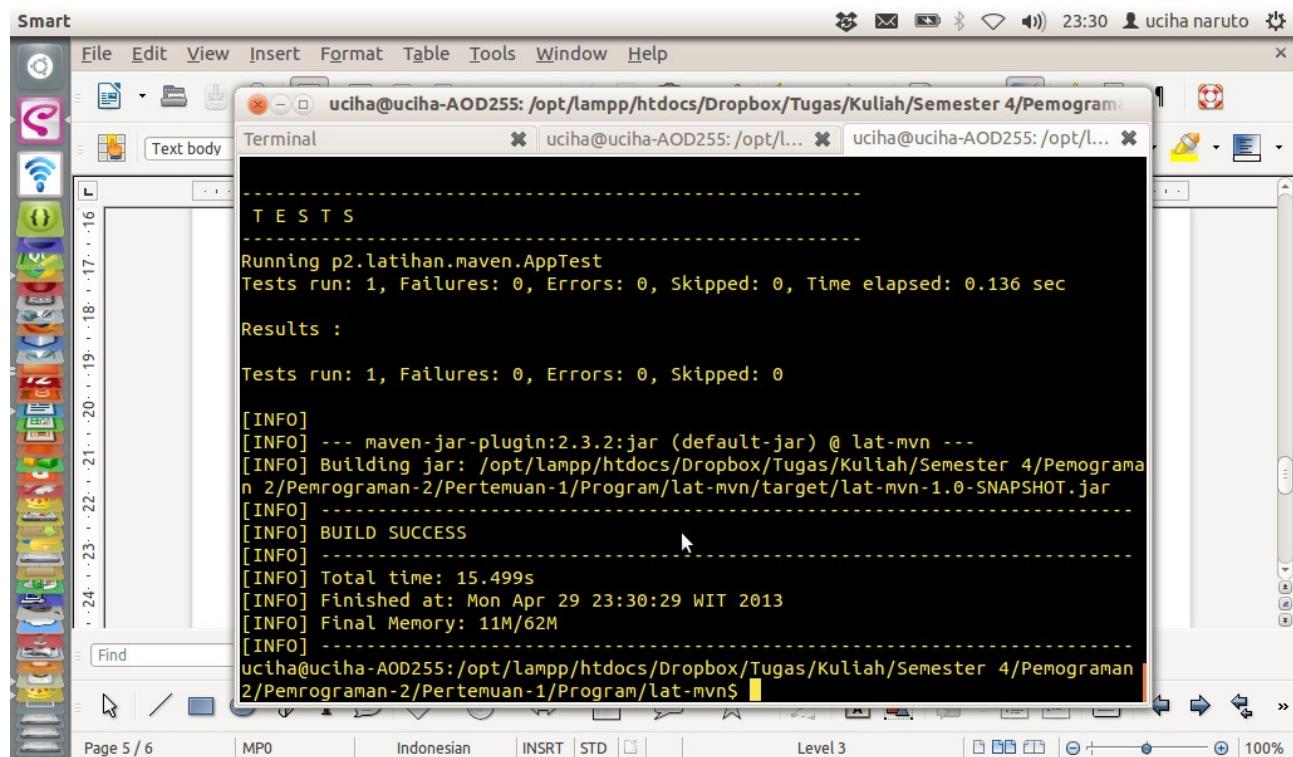
```
{
```

```
    System.out.println( "Hello Maven" );
```

```
}
```

```
}
```

3)mvn clean package



The screenshot shows a terminal window titled "Terminal" running on a Linux system. The command "mvn clean package" has been executed, resulting in the following output:

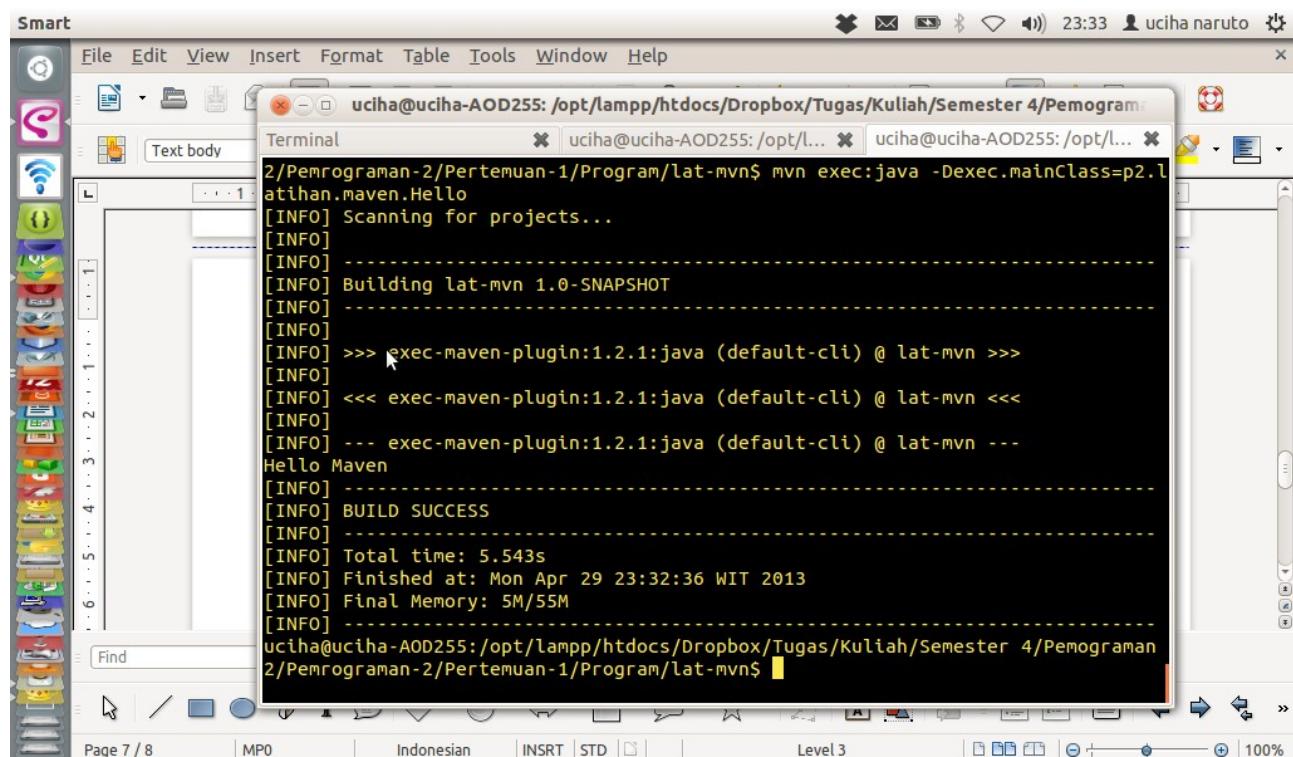
```
TESTS
Running p2.latihan.maven.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.136 sec
Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ lat-mvn ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-1/Program/lat-mvn/target/lat-mvn-1.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 15.499s
[INFO] Finished at: Mon Apr 29 23:30:29 WIT 2013
[INFO] Final Memory: 11M/62M
[INFO]
```

The terminal window is part of a larger interface with various icons and status bars.

4)mvn exec:java -Dexec.mainClass=p2.latihan.maven.Hello

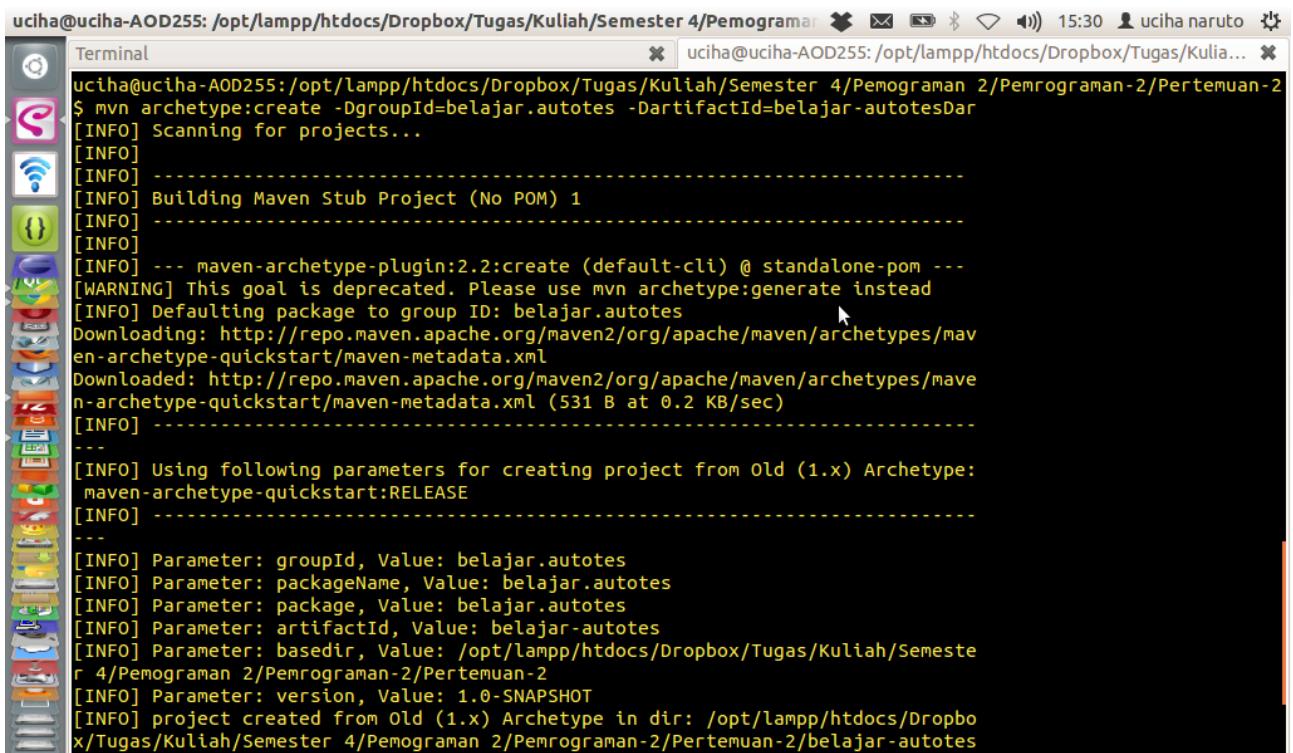


The screenshot shows a terminal window titled "Terminal" with the command "mvn exec:java -Dexec.mainClass=p2.latihan.maven.Hello" being run. The output shows the Maven build process, including scanning for projects, building the "lat-mvn" 1.0-SNAPSHOT version, and executing the Java code. The terminal also displays the success message "BUILD SUCCESS" and the total time taken.

```
2/Pemrograman-2/Pertemuan-1/Program/lat-mvn$ mvn exec:java -Dexec.mainClass=p2.latihan.maven.Hello
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building lat-mvn 1.0-SNAPSHOT
[INFO]
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ lat-mvn >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ lat-mvn <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ lat-mvn ---
Hello Maven
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 5.543s
[INFO] Finished at: Mon Apr 29 23:32:36 WIT 2013
[INFO] Final Memory: 5M/55M
[INFO]
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-1/Program/lat-mvn$
```

## Praktikum 2

1)mvn archetype:create -DgroupId=belajar.autotes -DartifactId=belajar-autotes



```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemogramar Terminal 15:30 uciha naruto
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-2
$ mvn archetype:create -DgroupId=belajar.autotes -DartifactId=belajar-autotesDar
[INFO] Scanning for projects...
[INFO] -----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----
[INFO] --- maven-archetype-plugin:2.2:create (default-cli) @ standalone-pom ---
[WARNING] This goal is deprecated. Please use mvn archetype:generate instead
[INFO] Defaulting package to group ID: belajar.autotes
Downloading: http://repo.maven.apache.org/maven2/org/apache/maven/archetypes/mav
en-archetype-quickstart/maven-metadata.xml
Downloaded: http://repo.maven.apache.org/maven2/org/apache/maven/archetypes/mave
n-archetype-quickstart/maven-metadata.xml (531 B at 0.2 KB/sec)
[INFO] -----
[INFO] Using following parameters for creating project from Old (1.x) Archetype:
  maven-archetype-quickstart:RELEASE
[INFO] -----
[INFO] Parameter: groupId, Value: belajar.autotes
[INFO] Parameter: packageName, Value: belajar.autotes
[INFO] Parameter: package, Value: belajar.autotes
[INFO] Parameter: artifactId, Value: belajar-autotes
[INFO] Parameter: basedir, Value: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semeste
r 4/Pemograman 2/Pemrograman-2/Pertemuan-2
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] project created from Old (1.x) Archetype in dir: /opt/lampp/htdocs/Dropbo
x/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes
```

2)cd belajar-autotes

3)edit belajar-autotes/src/main/java/belajar/autotes/App.java

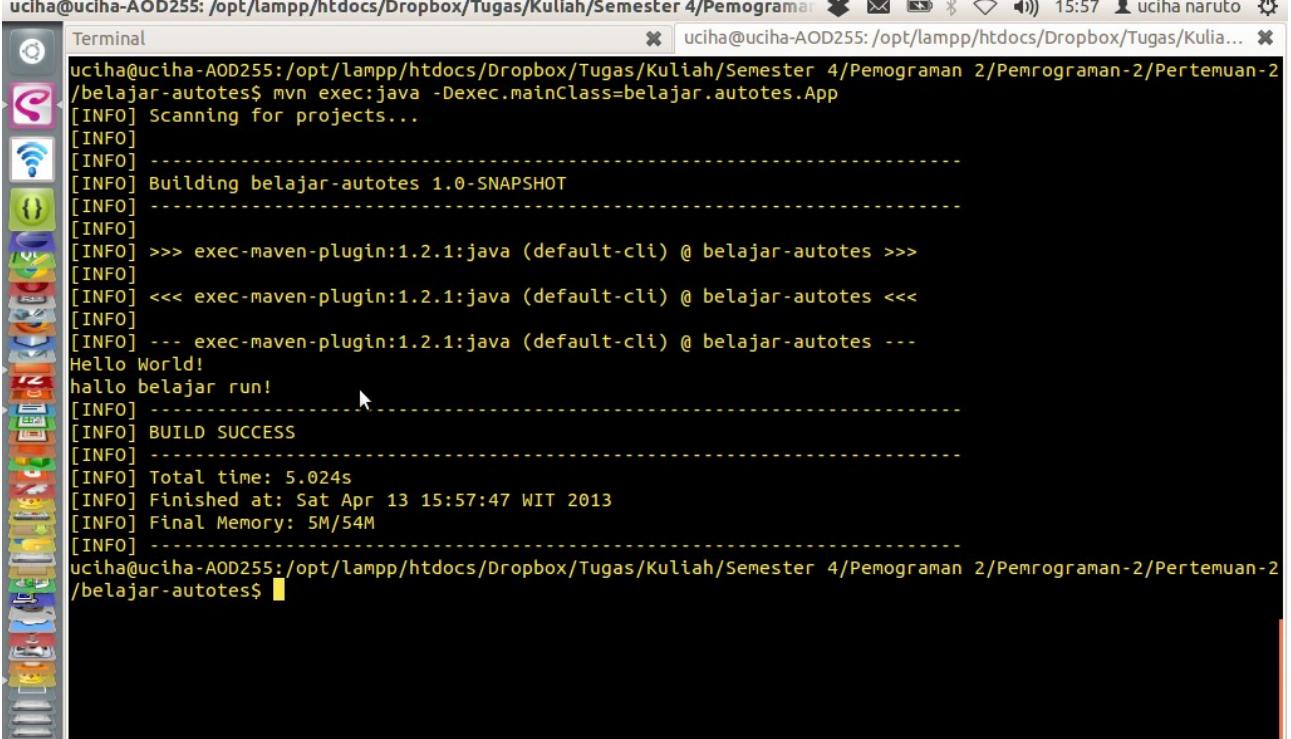
```
package belajar.autotes;
```

```
public class App
{
    public static void main( String[] args )
    {
        System.out.println( "Hello World!" );
        System.out.println( "hallo belajar run!" );
    }
}
```

4)mvn clean package

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$ Terminal uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$ [INFO] Compiling 1 source file to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes/target/test-classes [INFO] [INFO] --- maven-surefire-plugin:2.10:test (default-test) @ belajar-autotes --- [INFO] Surefire report directory: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes/target/surefire-reports ----- T E S T S ----- Running belajar.autotes.AppTest Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.165 sec Results : Tests run: 1, Failures: 0, Errors: 0, Skipped: 0 [INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes --- [INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes/target/belajar-autotes-1.0-SNAPSHOT.jar [INFO] ----- [INFO] BUILD SUCCESS [INFO] ----- [INFO] Total time: 17.826s [INFO] Finished at: Sat Apr 13 15:55:16 WIT 2013 [INFO] Final Memory: 10M/60M [INFO] ----- uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$
```

5)mvn exec:java -Dexec.mainClass=belajar.autotes.App



The screenshot shows a terminal window titled "Terminal" with the command "mvn exec:java -Dexec.mainClass=belajar.autotes.App" entered. The output of the Maven build is displayed, showing the project scanning, building, and executing. The output ends with "BUILD SUCCESS" and the application's output "Hello World! hallo belajar run!". The terminal window has a dark background with light-colored text and icons.

```
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$ mvn exec:java -Dexec.mainClass=belajar.autotes.App
[INFO] Scanning for projects...
[INFO]
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Hello World!
hallo belajar run!
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 5.024s
[INFO] Finished at: Sat Apr 13 15:57:47 WIT 2013
[INFO] Final Memory: 5M/54M
[INFO]
[INFO] uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$
```

6) buat file di belajar-autotes/src/test/java/belajar/autotes/HaloTest.java

```
package belajar.autotes;
```

```
import junit.framework.TestCase;
```

```
import junit.framework.Assert;
```

```
public class HaloTest extends TestCase{
```

```
    public HaloTest(String testName){
```

```
        super(testName);
```

```
}
```

```
protected void setUp() throws Exception{
```

```
    super.setUp();
```

```
    System.out.println("hello");
```

```
}
```

```
protected void tearDown() throws Exception{
```

```
    super.tearDown();
```

```
    System.out.println("world");
```

```
}
```

```
//method test ini HARUS diawali dengan kata 'test'
```

```
public void testApp(){
```

```
    System.out.println("hello world");
```

```
}
```

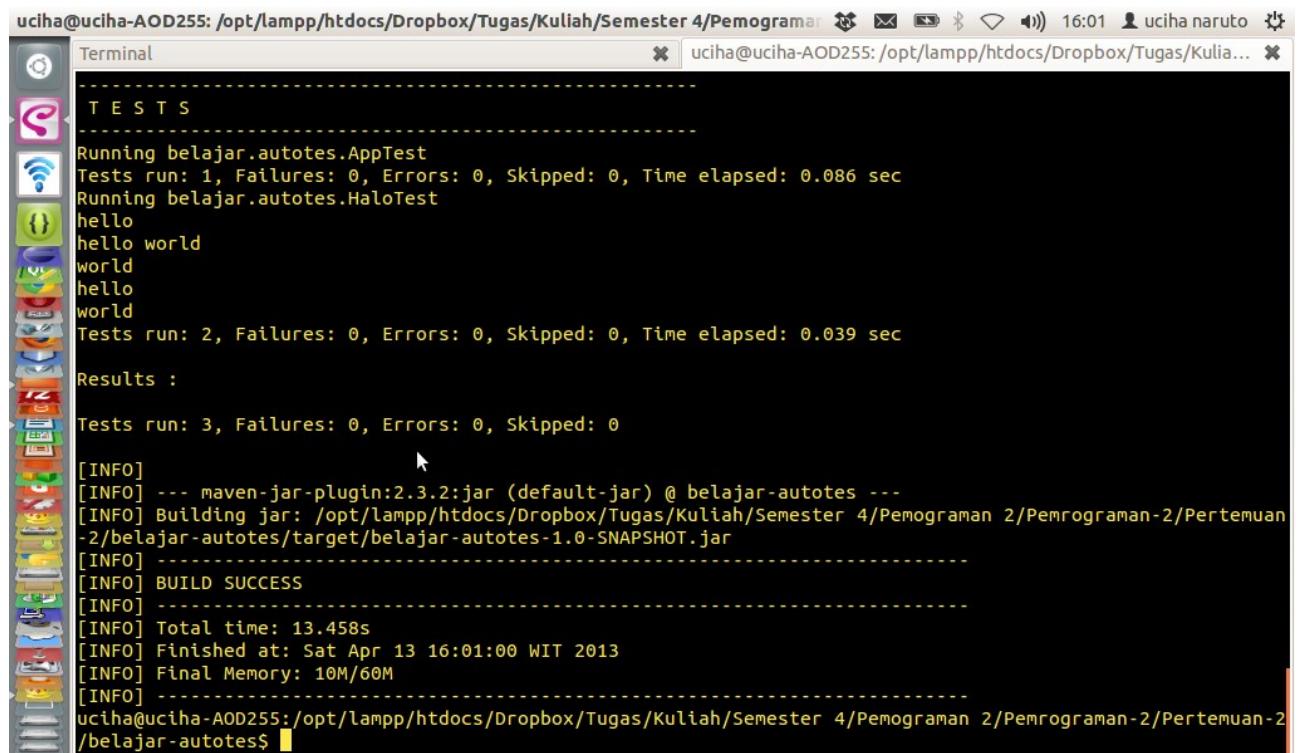
```
public void testAritmetic(){
```

```

int a = 7;
int b = 4;
Assert.assertEquals(11,a+b);
}
}

```

7)mvn clean package



The screenshot shows a terminal window with the following output:

```

Terminal uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$ mvn clean package
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 13.458s
[INFO] Finished at: Sat Apr 13 16:01:00 WIT 2013
[INFO] Final Memory: 10M/60M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-2/belajar-autotes$ 

```

### Praktikum 3

1)mvn archetype:create -DgroupId=com.belajar.string -DartifactId=belajar-string

2)Buat Latihan1.java di main/java/com/belajar/string berisi

```
package com.belajar.string;
```

```
/**
```

```
* Hello world!
```

```
*  
*/  
  
public class latihan1  
{  
    public static void main( String[] args )  
    {  
        //tipe data referensi  
        String nama1 = new String("tingki wingki");  
        System.out.println("Nama 1 : "+nama1);  
  
        //tipe data primitif  
        String nama2 = "lala";  
        System.out.println("Nama 2 : "+nama2);  
    }  
}
```

3)Buat Latihan2.java

```
package com.belajar.string;

public class latihan2
{
    public static void main( String[] args )
    {
        String a1 = "Go to";
        String a2 = "Universitas Pancasila";
        System.out.println(a1.concat(a2));
    }
}
```

4)Buat Latihan 3.java

```
package com.belajar.string;

public class latihan3
{
    public static void main( String[] args )
    {
        String text = "Welcome to Universitas Pancasila";
        System.out.println(text.substring(5));

        String text2 = "Ayo Kuliah";
        System.out.println(text2.substring(4,8));
    }
}
```

5)Buat Latihan4.java

```
package com.belajar.string;

public class latihan4
{
    public static void main( String[] args )
    {
        System.out.println(getReturn());
    }

    public static boolean getReturn(){
        String s1 = "Java";
        String s2 = "Java";

        if(s1 == s2)
            return true;

        //atau

        if(s1.equals(s2)){
            return true;
        }

        if(s1.compareTo(s2) == 0){
            return true;
        }
        else
    }
}
```

```
    return false;  
  
}  
}
```

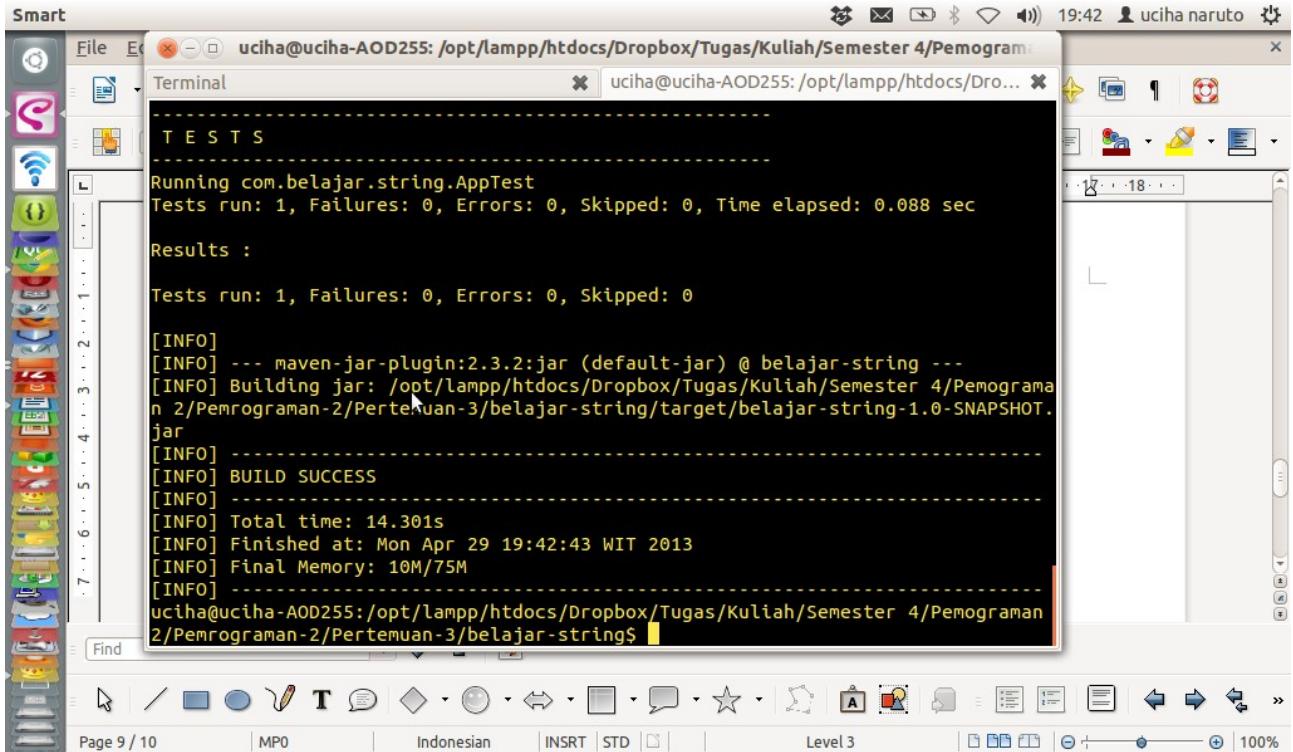
6)Buat Latihan5.java

```
package com.belajar.string;  
  
public class latihan5  
{  
    public static void main( String[] args )  
    {  
        String test = "Hello World";  
        System.out.println( test.toLowerCase() );  
    }  
}
```

7)Buat Latihan6.java

```
package com.belajar.string;  
  
public class latihan6  
{  
    public static void main( String[] args )  
    {  
        String test = "Hello World";  
        System.out.println( test.toUpperCase() );  
    }  
}
```

8)mvn clean package

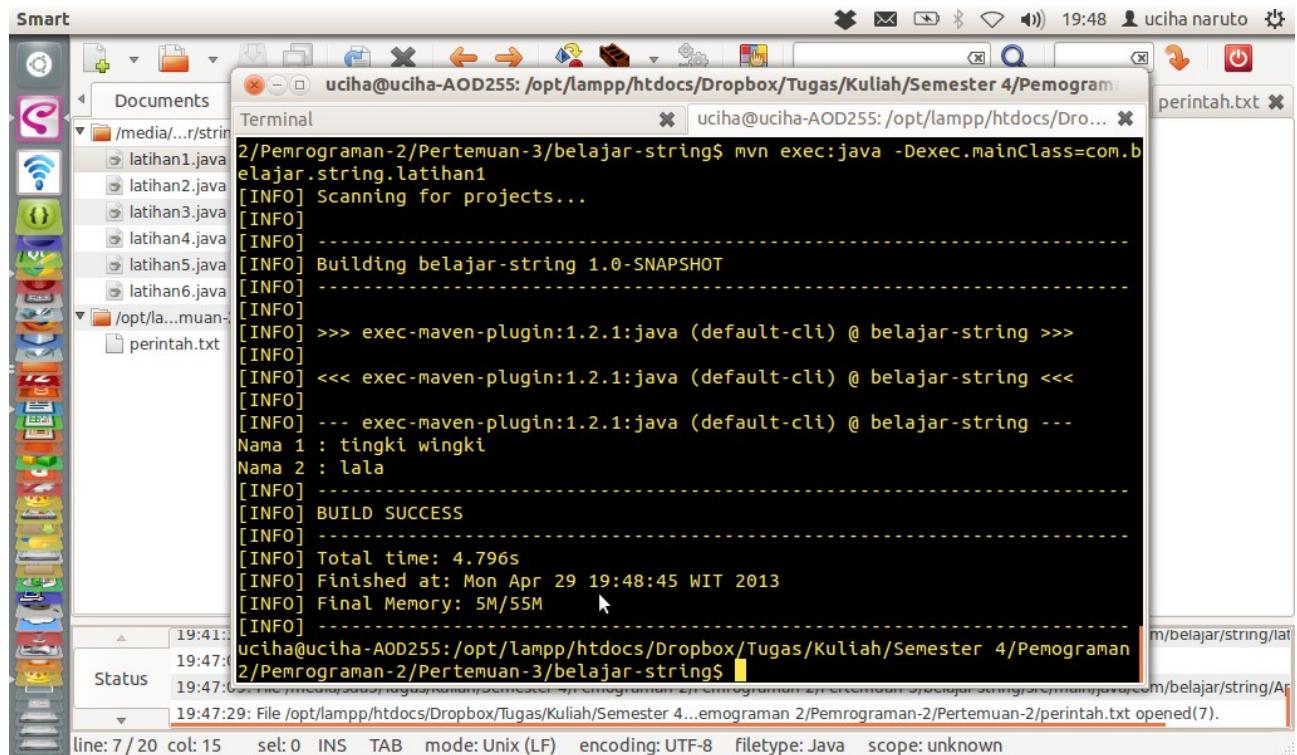


The screenshot shows a terminal window within a Smart IDE interface. The terminal output is as follows:

```
Smart
File E Terminal uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-3/belajar-string$ mvn clean package
-----
T E S T S
-----
Running com.belajar.string.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.088 sec
Results :
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

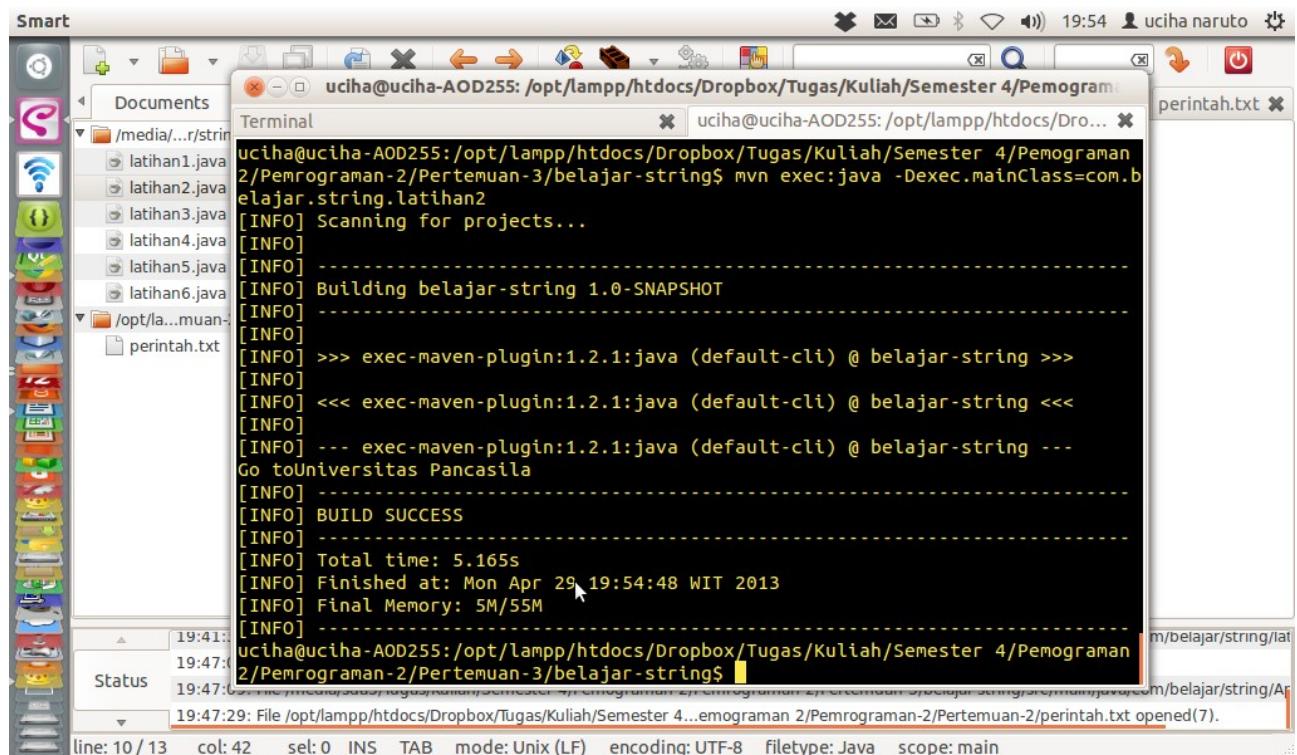
[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-string ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-3/belajar-string/target/belajar-string-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 14.301s
[INFO] Finished at: Mon Apr 29 19:42:43 WIT 2013
[INFO] Final Memory: 10M/75M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-3/belajar-string$
```

9)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan1



```
2/Pemrograman-2/Pertemuan-3/belajar-string$ mvn exec:java -Dexec.mainClass=com.belajar.string.latihan1
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building belajar-string 1.0-SNAPSHOT
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string >>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string ---
Nama 1 : tingki wingki
Nama 2 : lala
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 4.796s
[INFO] Finished at: Mon Apr 29 19:48:45 WIT 2013
[INFO] Final Memory: 5M/55M
[INFO]
[INFO] uciha@uchiha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$
```

10)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan2



```
uciha@uchiha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$ mvn exec:java -Dexec.mainClass=com.belajar.string.latihan2
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building belajar-string 1.0-SNAPSHOT
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string >>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string ---
Go toUniversitas Pancasila
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 5.165s
[INFO] Finished at: Mon Apr 29 19:54:48 WIT 2013
[INFO] Final Memory: 5M/55M
[INFO]
[INFO] uciha@uchiha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$
```

11)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan3

The screenshot shows a terminal window titled "Terminal" with the command "mvn exec:java -Dexec.mainClass=com.belajar.string.latihan3" being run. The output shows the Maven build process, including scanning for projects, building the "belajar-string" module, and executing the Java code. The build is successful, taking 5.322s and finishing at Mon Apr 29 19:55:27 WIT 2013.

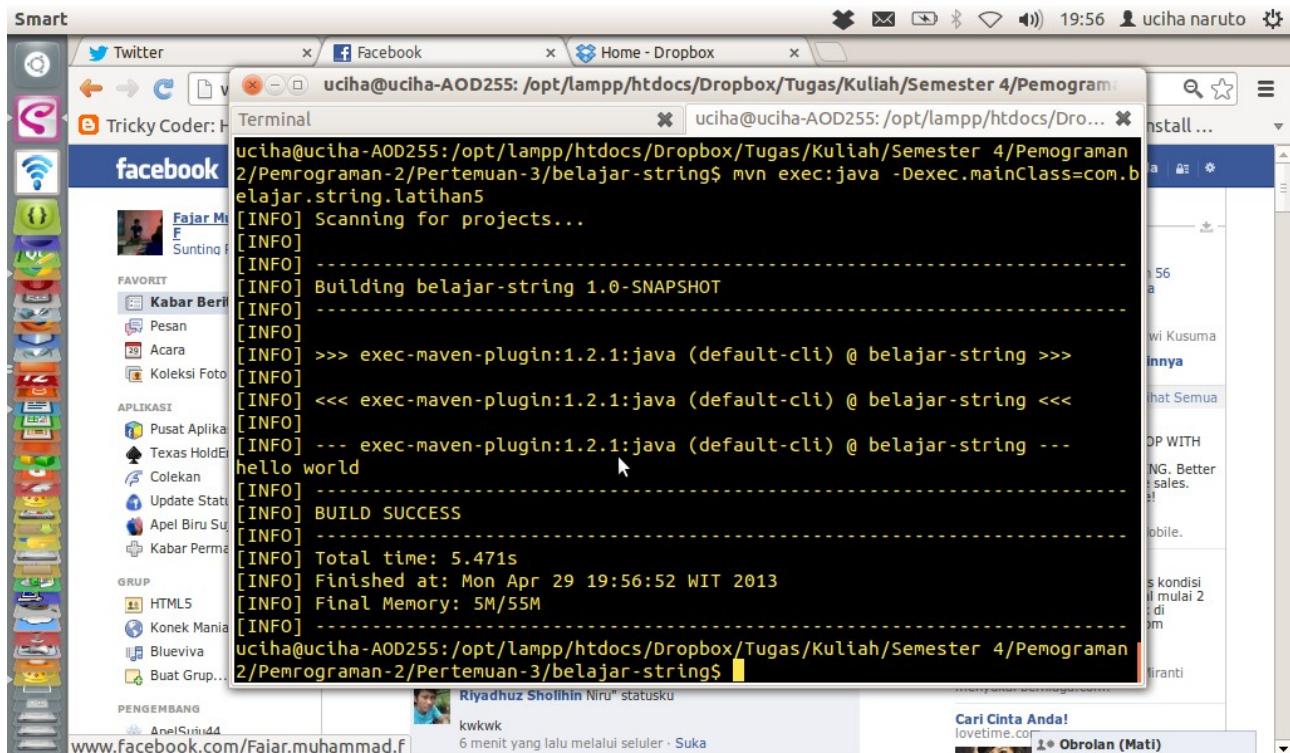
```
2/Pemrograman-2/Pertemuan-3/belajar-string$ mvn exec:java -Dexec.mainClass=com.belajar.string.latihan3
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building belajar-string 1.0-SNAPSHOT
[INFO]
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string ---
me to Universitas Pancasila
Kuli
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 5.322s
[INFO] Finished at: Mon Apr 29 19:55:27 WIT 2013
[INFO] Final Memory: 4M/46M
[INFO]
[INFO] uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$
```

12)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan4

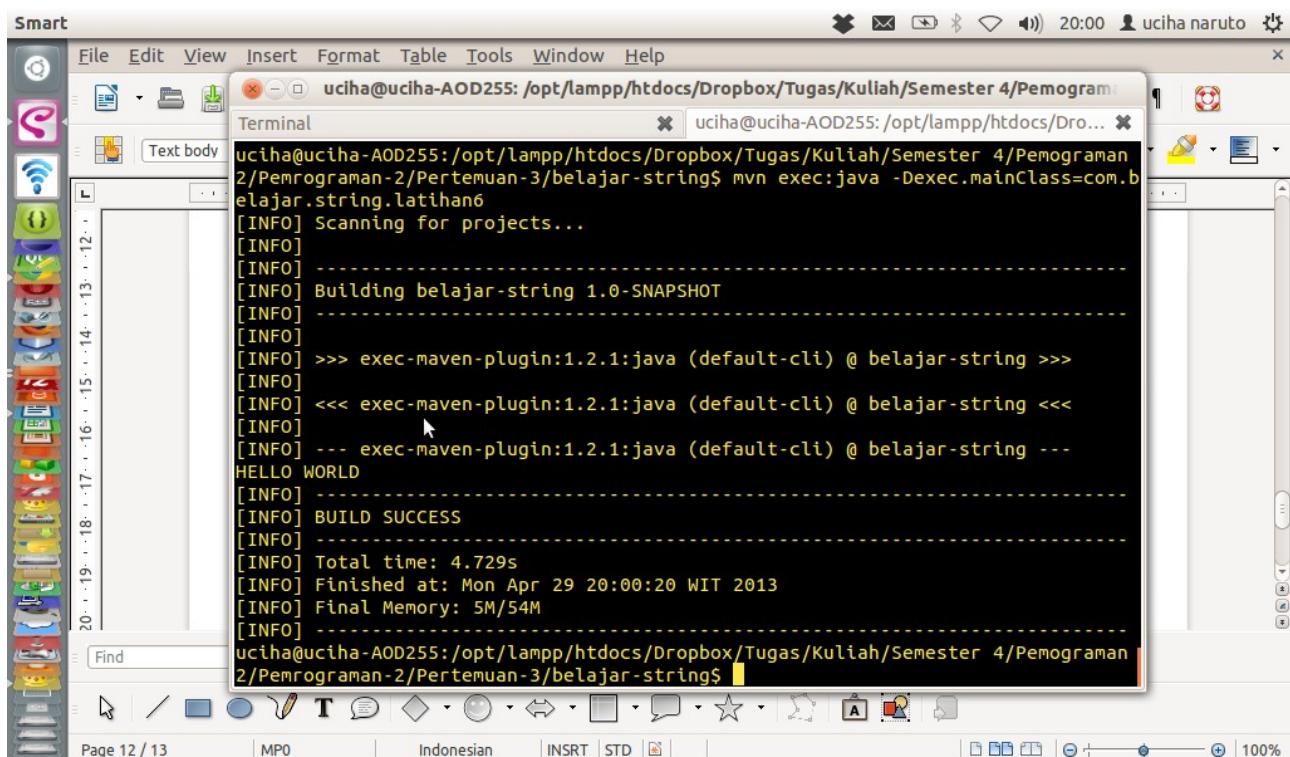
The screenshot shows a terminal window titled "Terminal" with the command "mvn exec:java -Dexec.mainClass=com.belajar.string.latihan4" being run. The output shows the Maven build process, including scanning for projects, building the "belajar-string" module, and executing the Java code. The build is successful, taking 5.336s and finishing at Mon Apr 29 19:56:03 WIT 2013.

```
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$ mvn exec:java -Dexec.mainClass=com.belajar.string.latihan4
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building belajar-string 1.0-SNAPSHOT
[INFO]
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-string ---
true
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 5.336s
[INFO] Finished at: Mon Apr 29 19:56:03 WIT 2013
[INFO] Final Memory: 5M/55M
[INFO]
[INFO] uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman
2/Pemrograman-2/Pertemuan-3/belajar-string$
```

13)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan5



14)mvn exec:java -Dexec.mainClass=com.belajar.string.latihan6



15)Buat database dengan masuk ke XAMPP/LAMPP lalu masuk ke bin

16)ketikan ./mysql -u root

17)lalu ketikan

```
use p2;
```

```
create table produk(
```

```
    id int auto increment primary key,
```

```
    nama varchar(255),
```

```
    harga decimal(10,2)
```

```
);
```

maka terbuatlah suatu tabel produk dengan 3 atribut didalamnya

#### Praktikum 4

1)mvn archetype:create -DgroupId=com.p2.jdbc -DartifactId=belajar-jdbc

2)Buat folder latihan dan update di belajar-jdbc/src/main/java/com/p2/jdbc/

3)Buat Main.java di folder latihan isinya

```
package com.p2.jdbc.latihan;
```

```
import java.sql.Connection;
```

```
import java.sql.DriverManager;
```

```
import java.sql.PreparedStatement;
```

```
import java.sql.SQLException;
```

```
import java.util.logging.Level;
```

```
import java.util.logging.Logger;
```

```
import java.math.BigDecimal;
```

```
public class Main
```

```

{
public static void main( String[] args )
{
try{
//paramenter yang dikirim adalah host,port , nama database ,user,password

Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String query = "INSERT INTO produk(nama,harga) values (?, "+new
BigDecimal(23000)+" )";

PreparedStatement ps = conn.prepareStatement(query);

ps.setString(1,"lala");

ps.executeUpdate();

}catch(SQLException se){
Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
}
}
}

```

4)Buat Update.java di folder latihan isinya

```
package com.p2.jdbc.latihan;
```

```

import java.sql.*;
import java.util.logging.Level;
import java.util.logging.Logger;
import java.math.BigDecimal;
import javax.swing.*;

```

```
public class Update
```

```
{
```

```

public static void main( String[] args )
{
    try{
        //paramenter yang dikirim adalah host,port , nama database ,user,password
        Connection conn =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
        Statement atm = conn.createStatement();
        String query = "UPDATE produk set nama='dipsi' ,harga='4500' WHERE
        nama='lala'";
        int hasil = atm.executeUpdate(query);

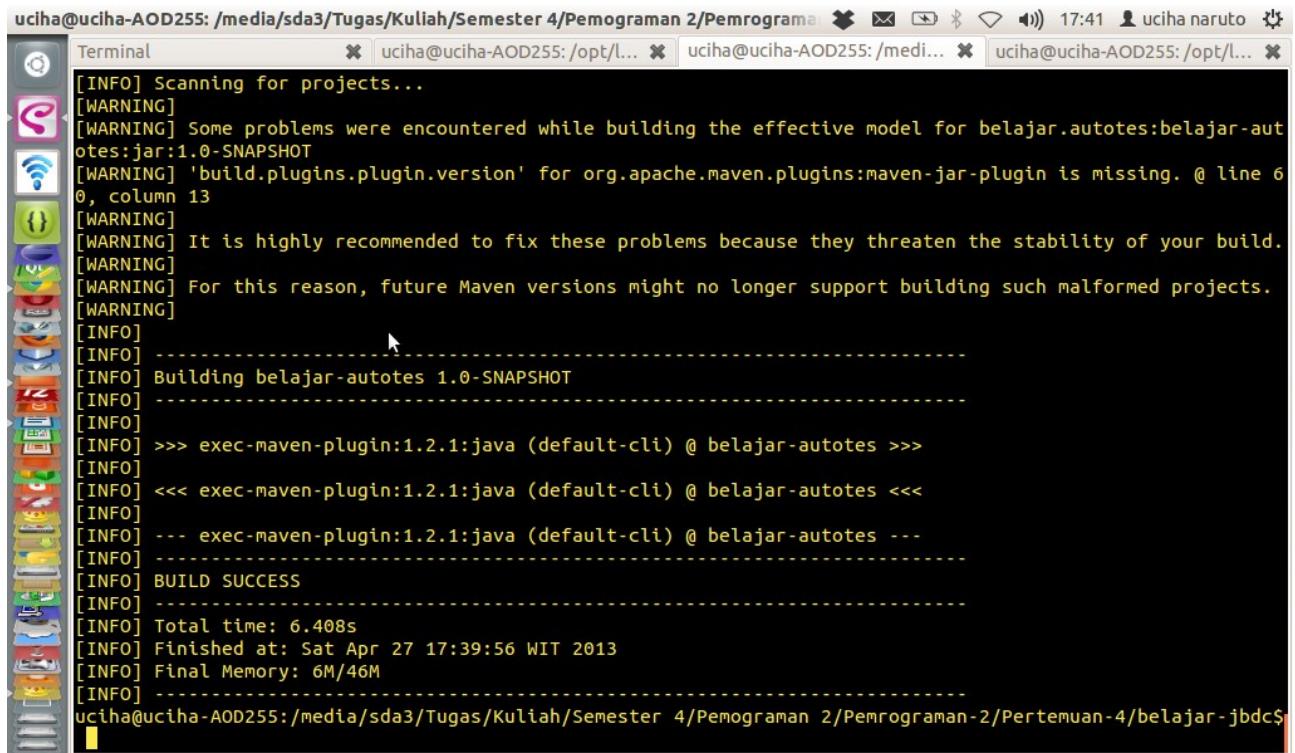
        if(hasil == 1){
            JOptionPane.showMessageDialog(null,"berhasil update");
        }
        else{
            JOptionPane.showMessageDialog(null,"gagal update");
        }
    }catch(SQLException se){
        Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
    }
}

```

5)mvn clean package

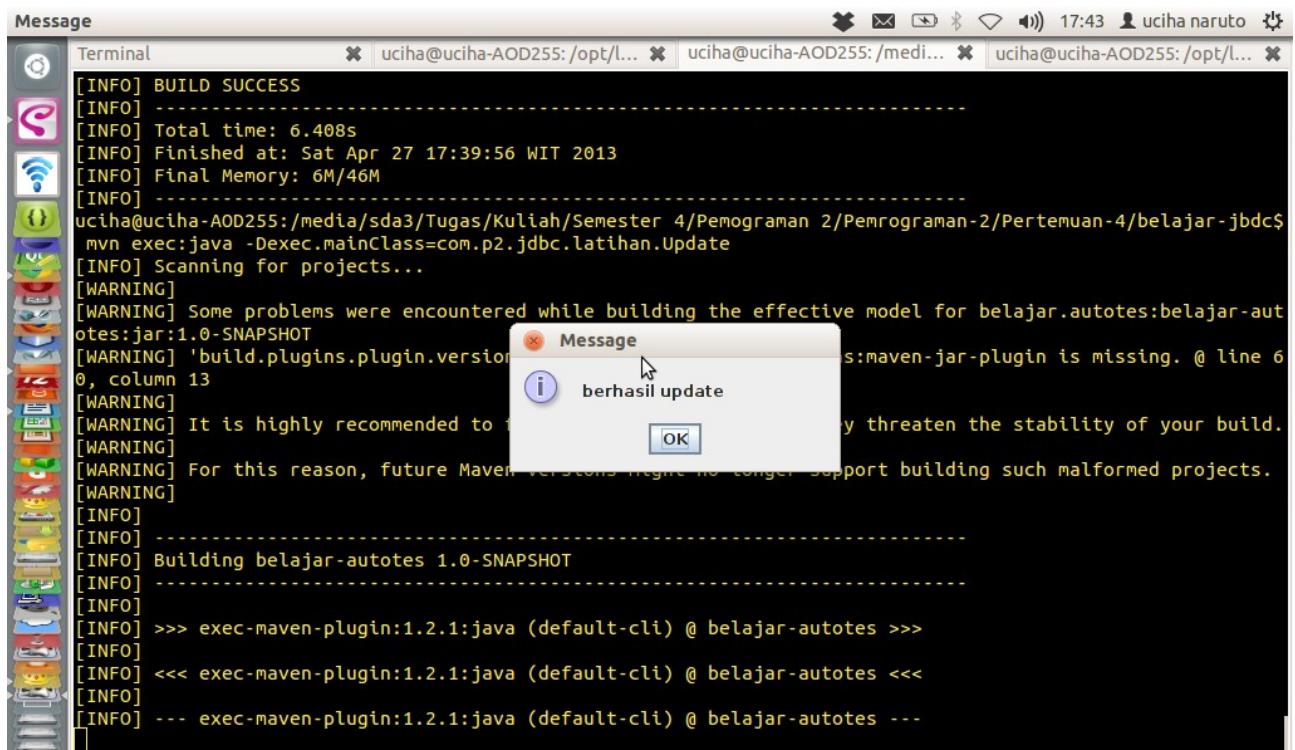
```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrogramma Terminal 17:37 uciha naruto 
[Terminal] x uciha@uciha-AOD255: /opt/l... x uciha@uciha-AOD255: /medi... x uciha@uciha-AOD255: /opt/l...
-----  
T E S T S  
-----  
Running com.p2.jdbc.AppTest  
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.09 sec  
Results :  
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0  
  
[INFO]  
[INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---  
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pertemuan-4/belajar-jdbc/target/lib/junit-3.8.1.jar  
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pertemuan-4/belajar-jdbc/target/lib/mysql-connector-java-5.1.18.jar  
[INFO]  
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---  
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/belajar-autotes-1.0-SNAPSHOT.jar  
[INFO] -----  
[INFO] BUILD SUCCESS  
[INFO] -----  
[INFO] Total time: 18.776s  
[INFO] Finished at: Sat Apr 27 17:37:37 WIT 2013  
[INFO] Final Memory: 12M/84M  
[INFO] -----  
uciha@uciha-AOD255:/media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

6)mvn exec:java -Dexec.mainClass=com.p2.jdbc.latihan.Main



```
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for belajar.autotes:belajar-autotes:jar:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-jar-plugin is missing. @ line 60, column 13
[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.
[WARNING]
[INFO]
[INFO] -----
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 6.408s
[INFO] Finished at: Sat Apr 27 17:39:56 WIT 2013
[INFO] Final Memory: 6M/46M
[INFO]
[INFO] uciha@uciha-AOD255:/media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

7) mvn exec:java -Dexec.mainClass=com.p2.jdbc.latihan.Update



```
Message
Terminal
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 6.408s
[INFO] Finished at: Sat Apr 27 17:39:56 WIT 2013
[INFO] Final Memory: 6M/46M
[INFO]
[INFO] -----
[INFO] uciha@uciha-AOD255:/media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn exec:java -Dexec.mainClass=com.p2.jdbc.latihan.Update
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for belajar.autotes:belajar-autotes:jar:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-jar-plugin is missing. @ line 60, column 13
[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.
[WARNING]
[INFO]
[INFO] -----
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
```

A message dialog box is displayed in the center of the terminal window, containing the text "berhasil update" (successful update) with an "OK" button.

8)dapat dilihat dimysql dengan menyalakan XAMPP/LAMPP lalu menuju ke folder bin dan ketikan  
26

./mysql -u root untuk login sebagai admin

9) lalu cek dengan mengetikan “select \* from produk”

10) Tugas Soal ===

11) Use p2

12) create table create table pembelian(

id\_brg int PRIMARY KEY,

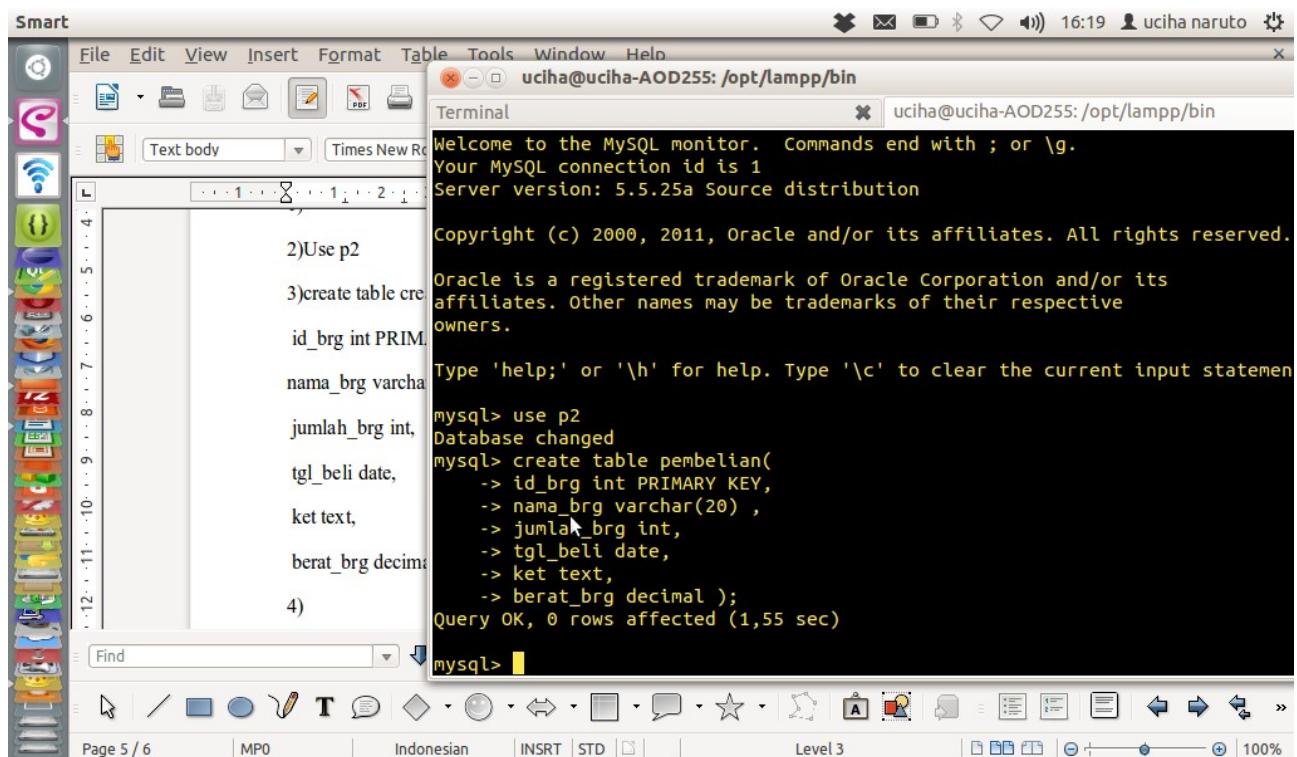
nama\_brg varchar(20),

jumlah\_brg int,

tgl\_beli date,

ket text,

berat\_brg decimal );



The screenshot shows the Smart IDE interface with a MySQL terminal window open. The terminal window displays the MySQL monitor welcome message, connection details, and the creation of a table named 'pembelian'. The table structure includes columns for id\_brg (PRIMARY KEY), nama\_brg (varchar(20)), jumlah\_brg (int), tgl\_beli (date), ket (text), and berat\_brg (decimal). The command 'use p2' is also shown.

```
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.25a Source distribution

Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement

mysql> use p2
Database changed
mysql> create table pembelian(
    -> id_brg int PRIMARY KEY,
    -> nama_brg varchar(20) ,
    -> jumlah_brg int,
    -> tgl_beli date,
    -> ket text,
    -> berat_brg decimal );
Query OK, 0 rows affected (1,55 sec)

mysql>
```

13) buat file Insert.java di folder soal berisikan

```
package com.p2.jdbc.soal;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import java.math.BigDecimal;

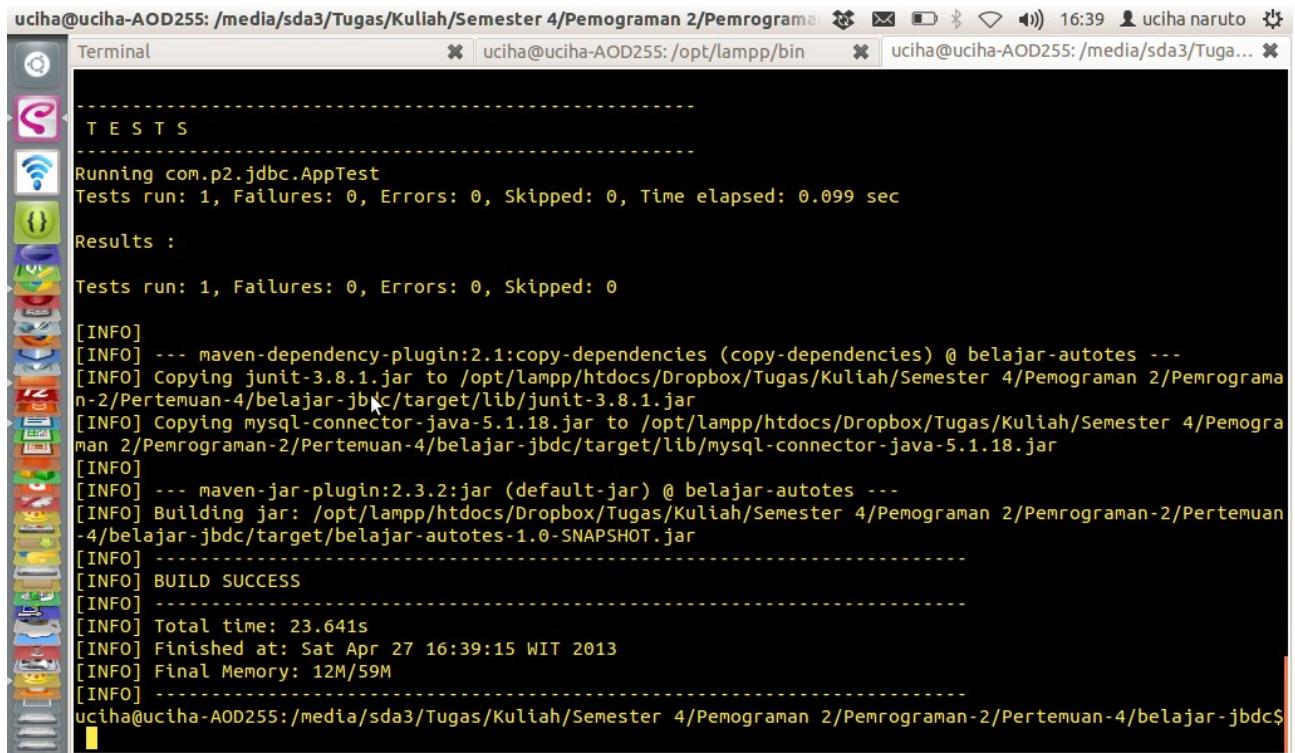
public class Insert
{
    public static void main( String[] args )
    {
        try{
            //paramenter yang dikirim adalah host,port , nama database ,user,password
            Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String query = "INSERT INTO
pembelian(id_brg,nama_brg,jumlah_brg,tgl_beli,ket,berat_brg) values ( 1 ,'Java','"+new
Integer(5)+",'2012-04-04','baru', 3 )";
PreparedStatement ps = conn.prepareStatement(query);
ps.executeUpdate();
}catch(SQLException se){
Logger.getLogger(Insert.class.getName()).log(Level.SEVERE,null,se);
}
    }
}
```

}

}

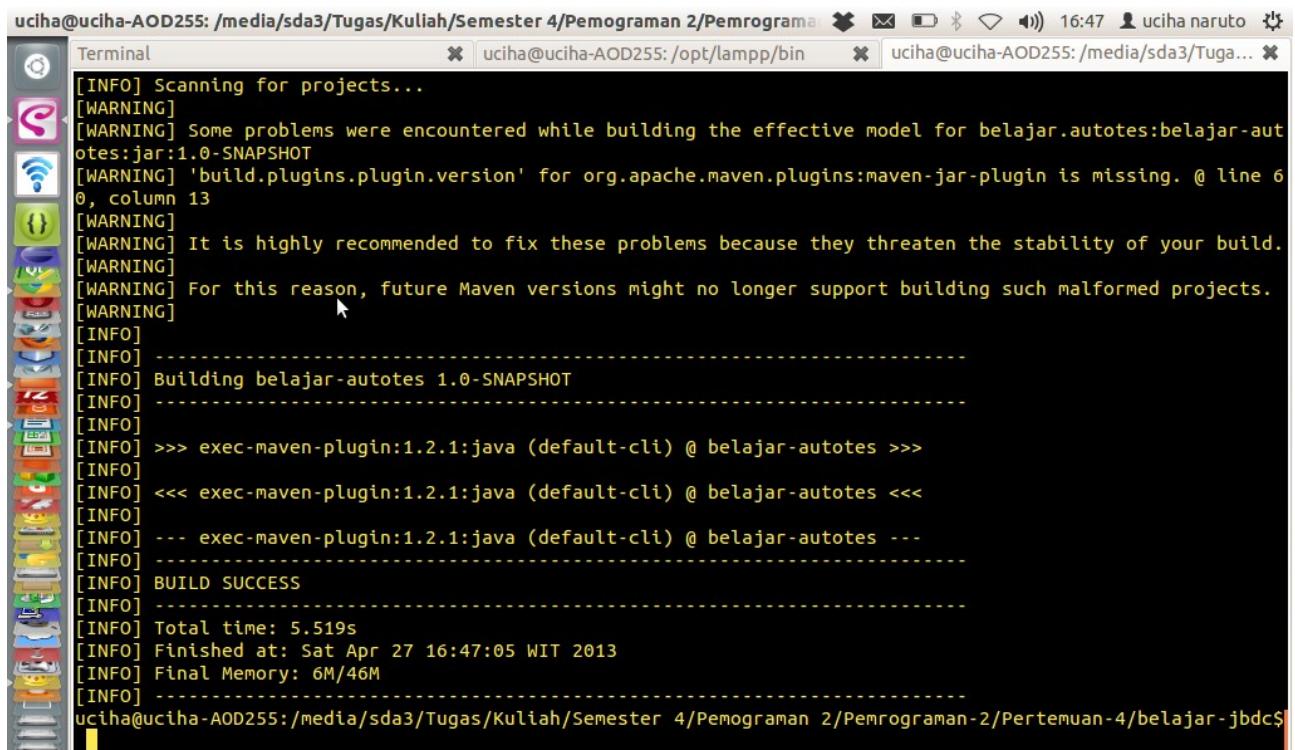
}

14)mvn clean package



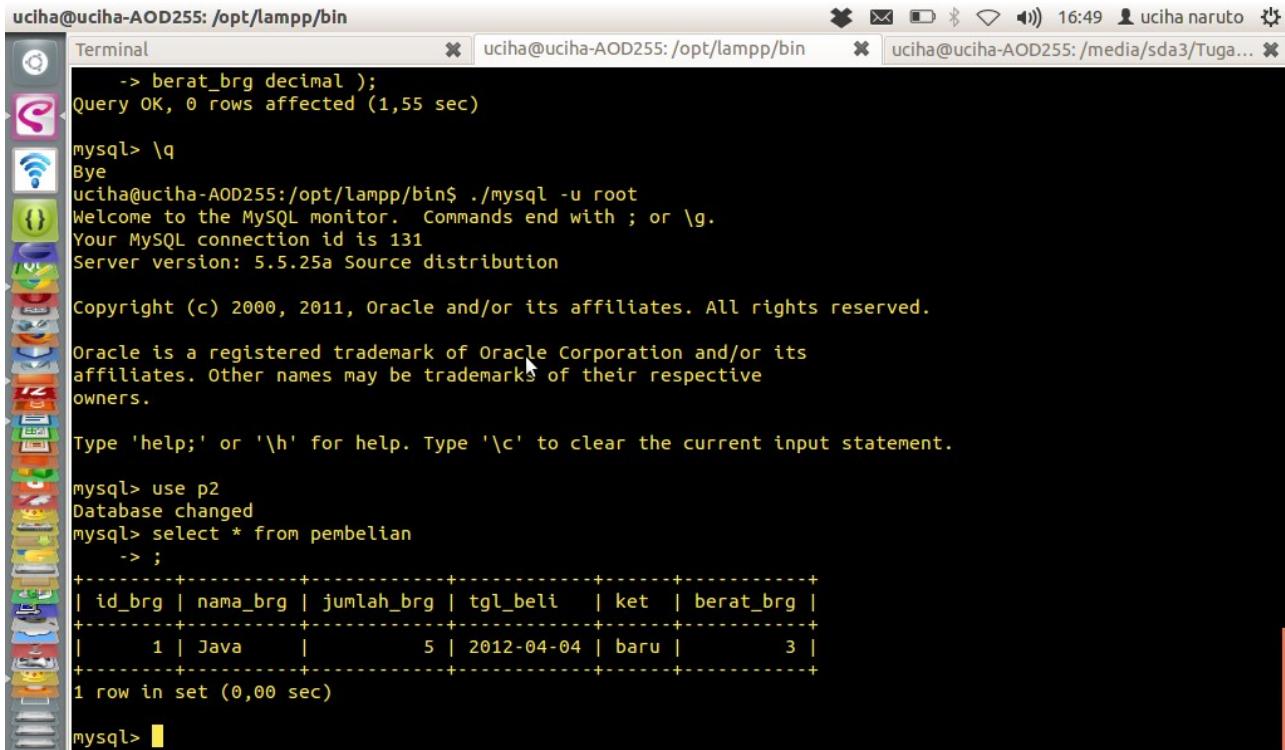
```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn clean package
[INFO] Scanning for projects...
[INFO] ------------------------------------------------------------------------
[INFO] T E S T S
[INFO] -----
[INFO] Running com.p2.jdbc.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.099 sec
[INFO] Results :
[INFO] -----
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] [INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/junit-3.8.1.jar
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/mysql-connector-java-5.1.18.jar
[INFO]
[INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] [INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 23.641s
[INFO] Finished at: Sat Apr 27 16:39:15 WIT 2013
[INFO] Final Memory: 12M/59M
[INFO]
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

15)mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Insert



```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Insert
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for belajar.autotes:belajar-autotes:jar:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-jar-plugin is missing. @ line 6
[WARNING] 0, column 13
[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.
[WARNING]
[INFO]
[INFO] -----
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.519s
[INFO] Finished at: Sat Apr 27 16:47:05 WIT 2013
[INFO] Final Memory: 6M/46M
[INFO]
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

16) cek record di table di mysql dengan “select \* from pembelian;”



```
uciha@uciha-AOD255: /opt/lampp/bin Terminal 1: uciha@uciha-AOD255: /opt/lampp/bin [x] uciha@uciha-AOD255: /opt/lampp/bin [x] uciha@uciha-AOD255: /media/sda3/Tuga... [x]
-> berat_brg decimal );
Query OK, 0 rows affected (1,55 sec)

mysql> \q
Bye
uciha@uciha-AOD255:/opt/lampp/bin$ ./mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 131
Server version: 5.5.25a Source distribution

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Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use p2
Database changed
mysql> select * from pembelian
-> ;
+-----+-----+-----+-----+-----+
| id_brg | nama_brg | jumlah_brg | tgl_beli | ket      | berat_brg |
+-----+-----+-----+-----+-----+
|       1 | Java      |          5 | 2012-04-04 | baru    |        3 |
+-----+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> █
```

17) Lalu buat file Update.java di folder soal

```
package com.p2.jdbc.soal;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
```

```
import java.math.BigDecimal;
```

```
public class Update
```

```
{
```

```
    public static void main( String[] args )
```

```

{

try{

//paramenter yang dikirim adalah host,port , nama database ,user,password

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String query = "UPDATE pembelian set
id_brg=1,nama_brg='Apel'jumlah_brg="+new Integer(3)+",tgl_beli='2012-04-
05',ket='bekas',berat_brg=5 where id_brg = 1";

PreparedStatement ps = conn.prepareStatement(query);

int hasil = ps.executeUpdate();

if(hasil == 1){

System.out.println("Berhasil Diupdate");

}

else{

System.out.println("Gagal Diupdate");

}

}

}catch(SQLException se){

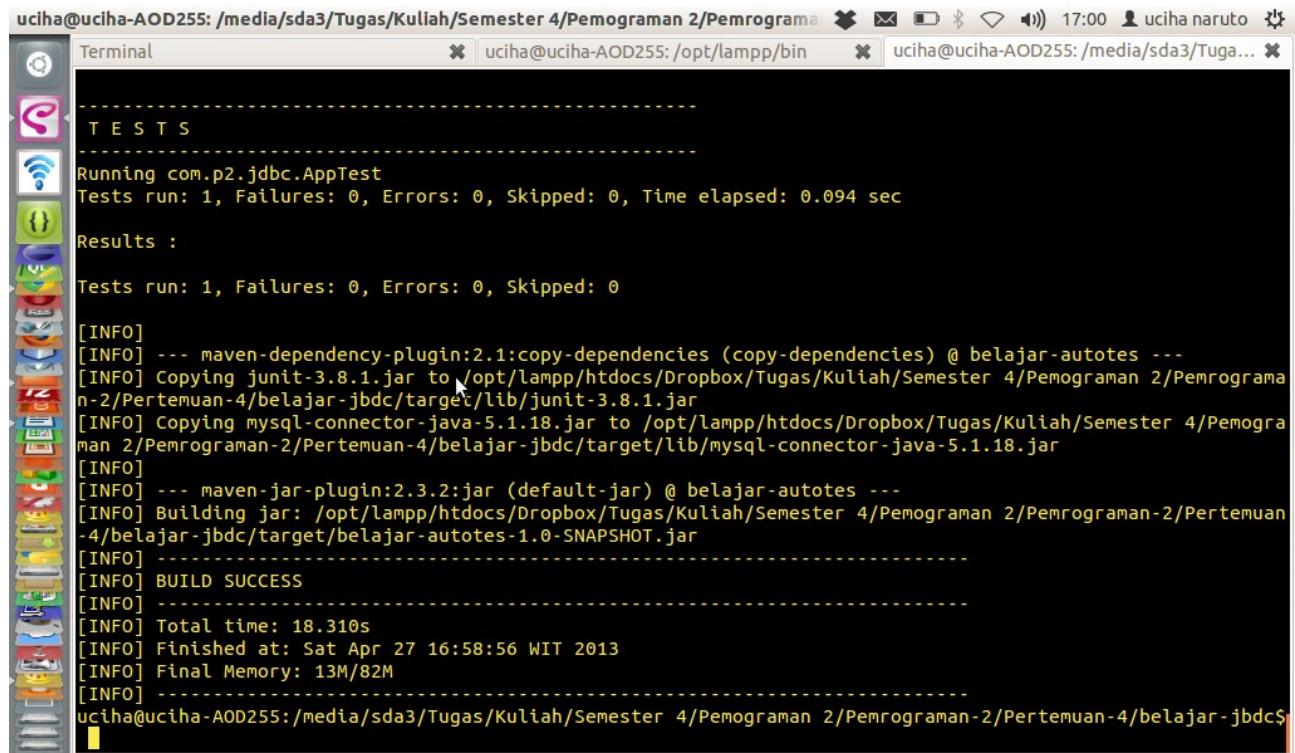
Logger.getLogger(Update.class.getName()).log(Level.SEVERE,null,se);

}

}

```

## 18)mvn clean package



The screenshot shows a terminal window with three tabs. The active tab displays the output of a Maven command. The output includes test results for 'com.p2.jdbc.AppTest', build logs for copying dependencies and creating a JAR file, and concludes with a 'BUILD SUCCESS' message.

```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn clean package
[INFO] Scanning for projects...
[INFO]
[INFO] --- maven-clean-plugin:2.1:clean (default-clean) @ belajar-autotes ---
[INFO] Deleting /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ belajar-autotes ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non-existing resource files
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ belajar-autotes ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/classes
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ belajar-autotes ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non-existing resource files
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ belajar-autotes ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:2.12.2:test (default-test) @ belajar-autotes ---
[INFO] Surefire report directory: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/surefire-reports

-------------------------------------------------------
 T E S T S
-------------------------------------------------------

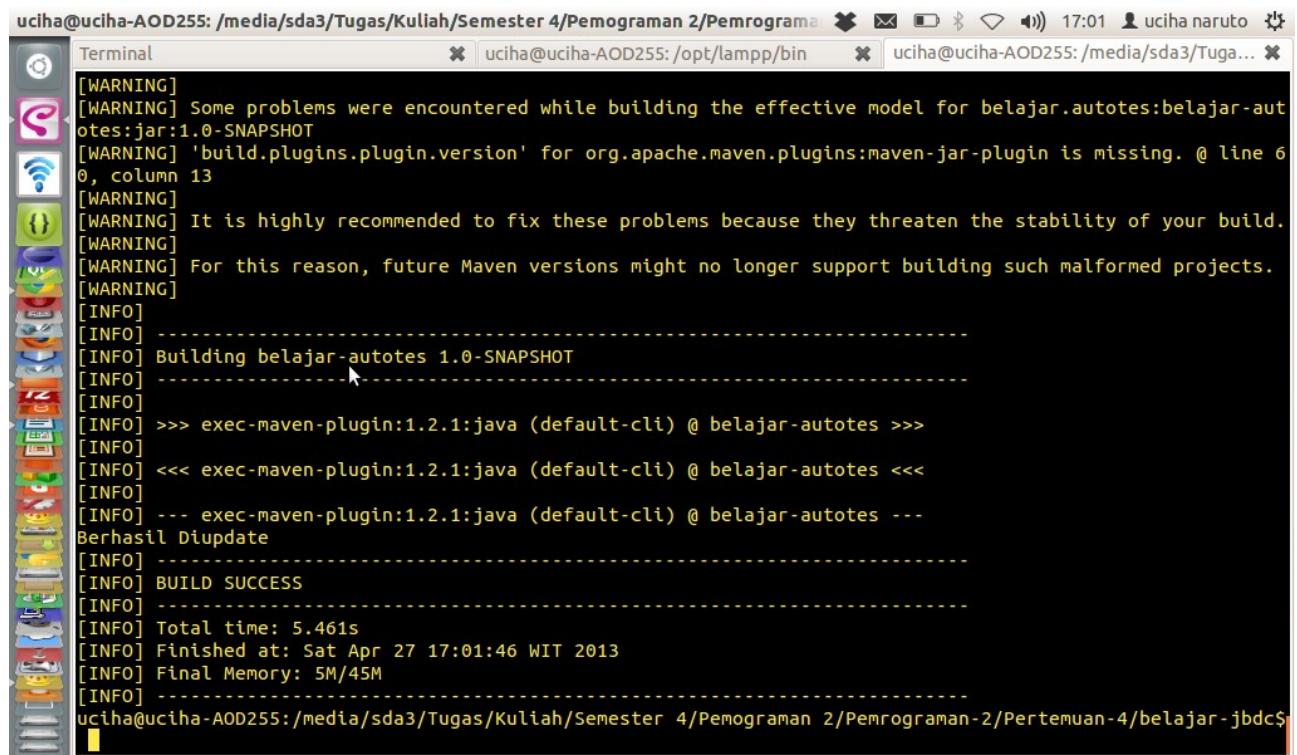
Running com.p2.jdbc.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.094 sec

Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO] [INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/junit-3.8.1.jar
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/mysql-connector-java-5.1.18.jar
[INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO] [INFO] BUILD SUCCESS
[INFO] [INFO] -----
[INFO] Total time: 18.310s
[INFO] Finished at: Sat Apr 27 16:58:56 WIT 2013
[INFO] Final Memory: 13M/82M
[INFO]
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

19)mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Update



The screenshot shows a terminal window titled "Terminal" with the command "mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Update" run by user "uchiha@uciha-AOD255". The output shows several [WARNING] messages about missing build plugins, followed by [INFO] messages indicating the build process, including the use of exec-maven-plugin, and finally a successful build message with total time, finish date, and final memory usage.

```
[WARNING]
[WARNING] Some problems were encountered while building the effective model for belajar.autotes:belajar-autotes:jar:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-jar-plugin is missing. @ line 6
[WARNING] 0, column 13
[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.
[WARNING]
[INFO]
[INFO] -----
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Berhasil Diupdate
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.461s
[INFO] Finished at: Sat Apr 27 17:01:46 WIT 2013
[INFO] Final Memory: 5M/45M
[INFO]
uchiha@uciha-AOD255:/media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

20) cek record di table di mysql dengan “select \* from pembelian;”

```
Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use p2
Database changed
mysql> select * from pembelian
-> ;
+-----+-----+-----+-----+
| id_brg | nama_brg | jumlah_brg | tgl_beli | ket | berat_brg |
+-----+-----+-----+-----+
|      1 | Java      |        5 | 2012-04-04 | baru |       3 |
+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> select * from pembelian
-> ;
+-----+-----+-----+-----+
| id_brg | nama_brg | jumlah_brg | tgl_beli | ket | berat_brg |
+-----+-----+-----+-----+
|      1 | Apel     |        3 | 2012-04-05 | bekas |       5 |
+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql>
```

21) Buat Delete.java difolder soal berisi

```
package com.p2.jdbc.soal;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import java.math.BigDecimal;
```

```
public class Delete
{
    public static void main( String[] args )
```

```

{

try{

//paramenter yang dikirim adalah host,port , nama database ,user,password

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String query = "DELETE from pembelian where id_brg = 1";

PreparedStatement ps = conn.prepareStatement(query);

int hasil = ps.executeUpdate();

if(hasil == 1){

System.out.println("Berhasil Didelete");

}

else{

System.out.println("Gagal Didelete");

}

}

}catch(SQLException se){

Logger.getLogger(Delete.class.getName()).log(Level.SEVERE,null,se);

}

}

```

22)mvn clean package

```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn clean package
Terminal 17:11 uciha naruto
[INFO] Scanning for projects...
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ belajar-autotes ---
[INFO] Deleting /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ belajar-autotes ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non-existing resource files
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ belajar-autotes ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/classes
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ belajar-autotes ---
[INFO] Using 'UTF-8' encoding to copy filtered test resources.
[INFO] skip non-existing resource files
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ belajar-autotes ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:2.12.4:test (default-test) @ belajar-autotes ---
[INFO] Surefire report directory: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/surefire-reports

-------------------------------------------------------
 T E S T S
-------------------------------------------------------

Running com.p2.jdbc.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.027 sec

Results :

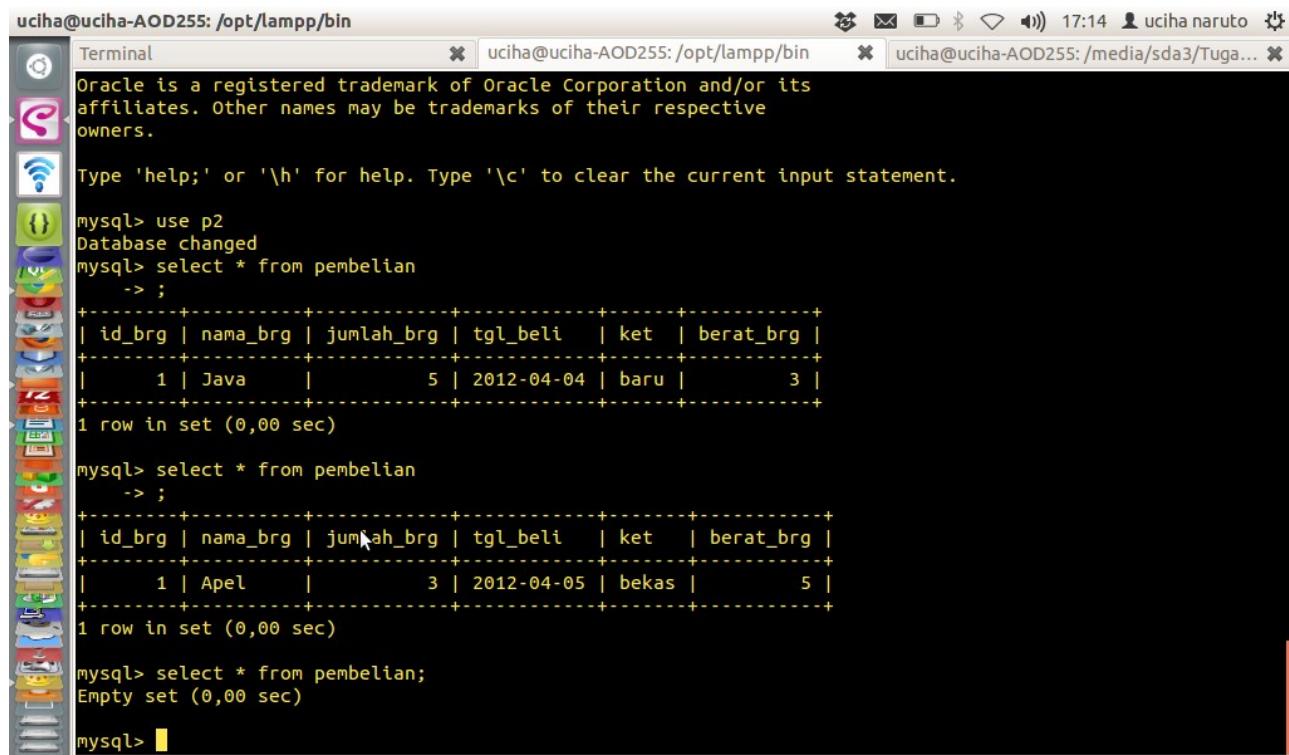
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/junit-3.8.1.jar
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/lib/mysql-connector-java-5.1.18.jar
[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 20.590s
[INFO] Finished at: Sat Apr 27 17:11:20 WIT 2013
[INFO] Final Memory: 13M/105M
[INFO]
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

23)mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Delete

```
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$ mvn exec:java -Dexec.mainClass=com.p2.jdbc.soal.Delete
Terminal 17:13 uciha naruto
[WARNING]
[WARNING] Some problems were encountered while building the effective model for belajar.autotes:belajar-autotes:jar:1.0-SNAPSHOT
[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-jar-plugin is missing. @ line 6
[WARNING] 0, column 13
[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.
[WARNING]
[INFO]
[INFO] -----
[INFO] Building belajar-autotes 1.0-SNAPSHOT
[INFO] -----
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Berhasil Didelete
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 6.435s
[INFO] Finished at: Sat Apr 27 17:13:18 WIT 2013
[INFO] Final Memory: 6M/45M
[INFO]
uciha@uciha-AOD255: /media/sda3/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-4/belajar-jdbc$
```

24) cek di mysql dengan mengetik “select \* from pembelian;”



The screenshot shows a terminal window with three tabs. The active tab displays MySQL commands and their results. The session starts with a welcome message from Oracle, followed by a prompt to use the 'p2' database. Subsequent queries select all rows from the 'pembelian' table, showing two entries: one for 'Java' (id=1, quantity=5, date=2012-04-04, ket='baru', weight=3) and another for 'Apel' (id=1, quantity=3, date=2012-04-05, ket='bekas', weight=5). A final query for an empty set is shown.

```
uciha@uciha-AOD255: /opt/lampp/bin
Terminal  uciha@uciha-AOD255: /opt/lampp/bin  uciha@uciha-AOD255: /media/sda3/Tuga...
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use p2
Database changed
mysql> select * from pembelian
-> ;
+-----+-----+-----+-----+-----+
| id_brg | nama_brg | jumlah_brg | tgl_beli | ket | berat_brg |
+-----+-----+-----+-----+-----+
| 1 | Java | 5 | 2012-04-04 | baru | 3 |
+-----+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> select * from pembelian
-> ;
+-----+-----+-----+-----+-----+
| id_brg | nama_brg | jumlah_brg | tgl_beli | ket | berat_brg |
+-----+-----+-----+-----+-----+
| 1 | Apel | 3 | 2012-04-05 | bekas | 5 |
+-----+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> select * from pembelian;
Empty set (0,00 sec)

mysql>
```

## Praktikum 5

1) mvn archetype:create -DgroupId=com.p2.regex -DartifactId=belajar-regex

2) Buat App.java

```
package com.p2.regex;
```

```
import java.util.regex.*;
```

```
public class App
```

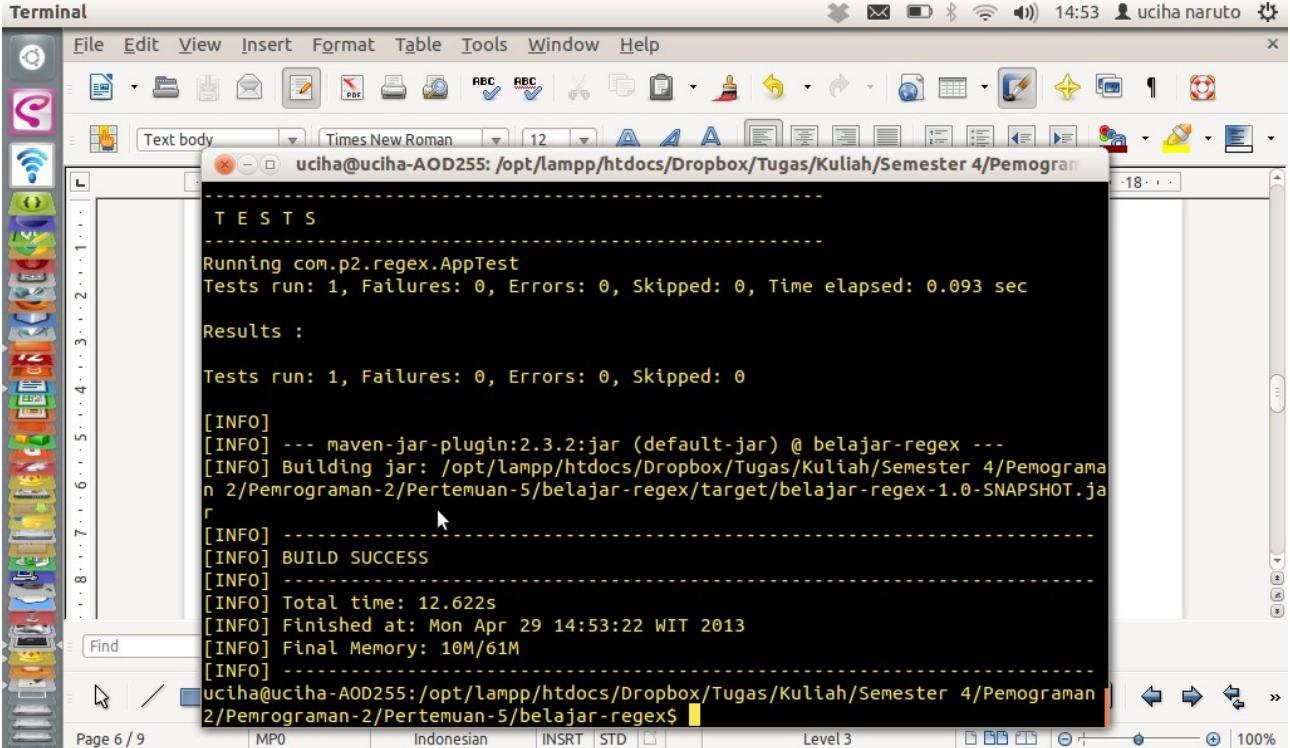
```
{
```

```
    public static void main( String[] args )
```

```
{
```

```
String text = "febry@yahoo.com";  
String regex = "|\\w+@[\\w+\\.][a-zA-Z]{2,}";  
  
if(text.matches(regex)){  
    System.out.println("email sesuai dengan regex");  
}  
else{  
    System.out.println("email tidak sesuai dengan regex");  
}  
}  
}
```

### 3)mvn clean package



The screenshot shows a terminal window titled "Terminal" with the following command history:

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$ mvn clean package
```

The output of the command is displayed below:

```
TESTS
-----
Running com.p2.regex.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.093 sec

Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-regex ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-5/belajar-regex/target/belajar-regex-1.0-SNAPSHOT.jar
[INFO] -
[INFO] BUILD SUCCESS
[INFO] -
[INFO] Total time: 12.622s
[INFO] Finished at: Mon Apr 29 14:53:22 WIT 2013
[INFO] Final Memory: 10M/61M
[INFO] -
```

4)mvn exec:java -Dexec.mainClass=com.p2.regex.App

The screenshot shows a terminal window titled "Terminal". The command entered is "mvn exec:java -Dexec.mainClass=com.p2.regex.App". The output shows the Maven plugin executing the Java code, which prints "email sesuai dengan regex" and "BUILD SUCCESS". The terminal window has a standard OS X interface with a toolbar at the top and a scroll bar on the right.

```
Terminal
File Edit View Insert Format Table Tools Window Help
[...]
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$ mvn exec:java -Dexec.mainClass=com.p2.regex.App
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building belajar-regex 1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex ---
email sesuai dengan regex
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 4.644s
[INFO] Finished at: Mon Apr 29 14:56:15 WIT 2013
[INFO] Final Memory: 5M/46M
[INFO]
[...]
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$
```

5)Buat App2.java

```
package com.p2.regex;

import java.util.regex.*;

public class App2
{
    public static void main( String[] args )
    {
        String text = "febry99.coms@yahoo.co.id";
        String regex = "|\\w+\\.\\w+?|@|\\w+|[a-zA-Z]{2,}.[a-zA-Z]{2,}|";
        if(text.matches(regex)){
            System.out.println("Email valid");
        } else {
            System.out.println("Email tidak valid");
        }
    }
}
```

```

        System.out.println("email sesuai dengan regex");

    }

    else{

        System.out.println("email tidak sesuai dengan regex");

    }

}

```

6)mvn clean package exec:java -Dexec.mainClass=com.p2.regex.App2

The screenshot shows a terminal window with the following content:

```

Terminal
File Edit View Insert Format Table Tools Window Help
ucih@ucih-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$ mvn clean package exec:java -Dexec.mainClass=com.p2.regex.App2
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-regex ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex/target/belajar-regex-1.0-SNAPSHOT.jar
[INFO] 
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex >>>
[INFO] 
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex <<<
[INFO] 
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex ---
email sesuai dengan regex
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 14.327s
[INFO] Finished at: Mon Apr 29 15:15:27 WIT 2013
[INFO] Final Memory: 12M/60M
[INFO] -----
ucih@ucih-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$ mvn clean package exec:java -Dexec.mainClass=com.p2.regex.App2

```

7)Buat Cari.java

```
package com.p2.regex;
```

```
import java.util.regex.*;
```

```
public class Cari
```

```
{
```

```

public static void main( String[] args )
{
    String text1 = "Nama saya Dono ini email saya Dono@yahoo.com";
    cekRegex("[A-Z,a-z]{2,20}\s",text1);
}

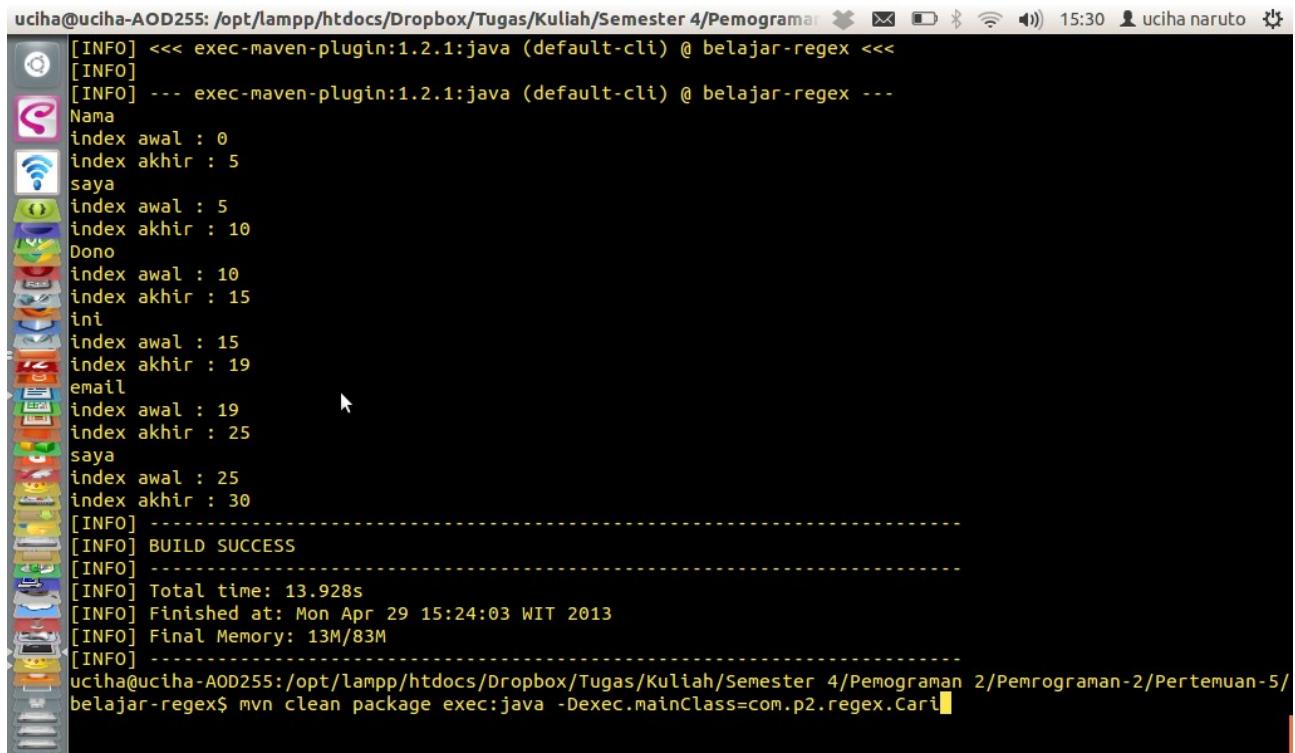
public static void cekRegex(String regexp,String kata){
    Pattern p = Pattern.compile(regexp);
    Matcher m = p.matcher(kata);

    while(m.find()){
        if(m.group().length() != 0){

            System.out.println(m.group().trim());
        }
        System.out.println("index awal : "+m.start());
        System.out.println("index akhir : "+m.end());
    }
}

```

8)mvn clean package exec:java -Dexec.mainClass=com.p2.regex.Cari



```
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex ---
Nama
index awal : 0
index akhir : 5
saya
index awal : 5
index akhir : 10
Dono
index awal : 10
index akhir : 15
ini
index awal : 15
index akhir : 19
email
index awal : 19
index akhir : 25
saya
index awal : 25
index akhir : 30
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 13.928s
[INFO] Finished at: Mon Apr 29 15:24:03 WIT 2013
[INFO] Final Memory: 13M/83M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$ mvn clean package exec:java -Dexec.mainClass=com.p2.regex.Cari
```

9)Buat RegexMain.java

```
package com.p2.regex;

import java.util.regex.*;

public class RegexMain
{
    public boolean valid( String regex, String input )
    {
        Pattern p = Pattern.compile(regex);
        Matcher m = p.matcher(input);
        return m.matches();
    }
}
```

```
}
```

10)Buat RegexTest.java di folder test

```
package com.p2.regex;

import org.junit.*;
import static org.junit.Assert.*;

public class RegexTest{

    @Test
    public void testValidasiTgl(){
        RegexMain rm = new RegexMain();
        assertTrue(rm.valid(
            "[0-3]?[0-9]\\s[a-zA-Z]{3}\\s[0-2][0-9][3]","19 fer 1992"
        ));
    }
}
```

11)mvn clean package

12)Buat Soal.java

```
package com.p2.regex;

import java.util.regex.*;
import java.lang.String;
import java.util.Scanner;

public class Soal
{

```

```

public static void main( String[] args )
{
    Scanner data = new Scanner(System.in);
    System.out.println("Masukan Nama Anda");
    String nama = data.nextLine();
    String regexnama = "[A-Za-z]{1}[a-zA-Z]{2,}\s?[A-Za-z]{0,1}[a-zA-Z]{0,}\s?[A-Za-z]{0,1}[a-zA-Z]{0,}";
    if(nama.matches(regexnama)){
        System.out.println("Nama Anda Tidak Alay");
    }
    else{
        System.out.println("Nama Anda Alay");
    }

    System.out.println("Masukan Nama Email");
    String email = data.nextLine();
    String regexemail1 = "[A-Za-z0-9]{1,}@[A-Za-z]{1,}.[A-Za-z]{1,}.[A-Za-z]{1,}";
    String regexemail2 = "[A-Za-z0-9]{1,}@[A-Za-z]{1,}.[A-Za-z]{1,}";
    if(email.matches(regexemail1) || email.matches(regexemail2)){
        System.out.println("Email Anda Valid");
    }
    else{
        System.out.println("Email Anda Tidak Valid");
    }

    System.out.println("Masukan Nama Tanggal Lahir");
    String lahir = data.nextLine();
}

```

```

String regexlahir = "[0-9]{1,2}-[0-9]{1,2}-[0-9]{4,}";
if(lahir.matches(regexlahir)){
    System.out.println("Tanggal Lahir Valid");
}
else{
    System.out.println("Tanggal Lahir Anda Tidak Valid");
}

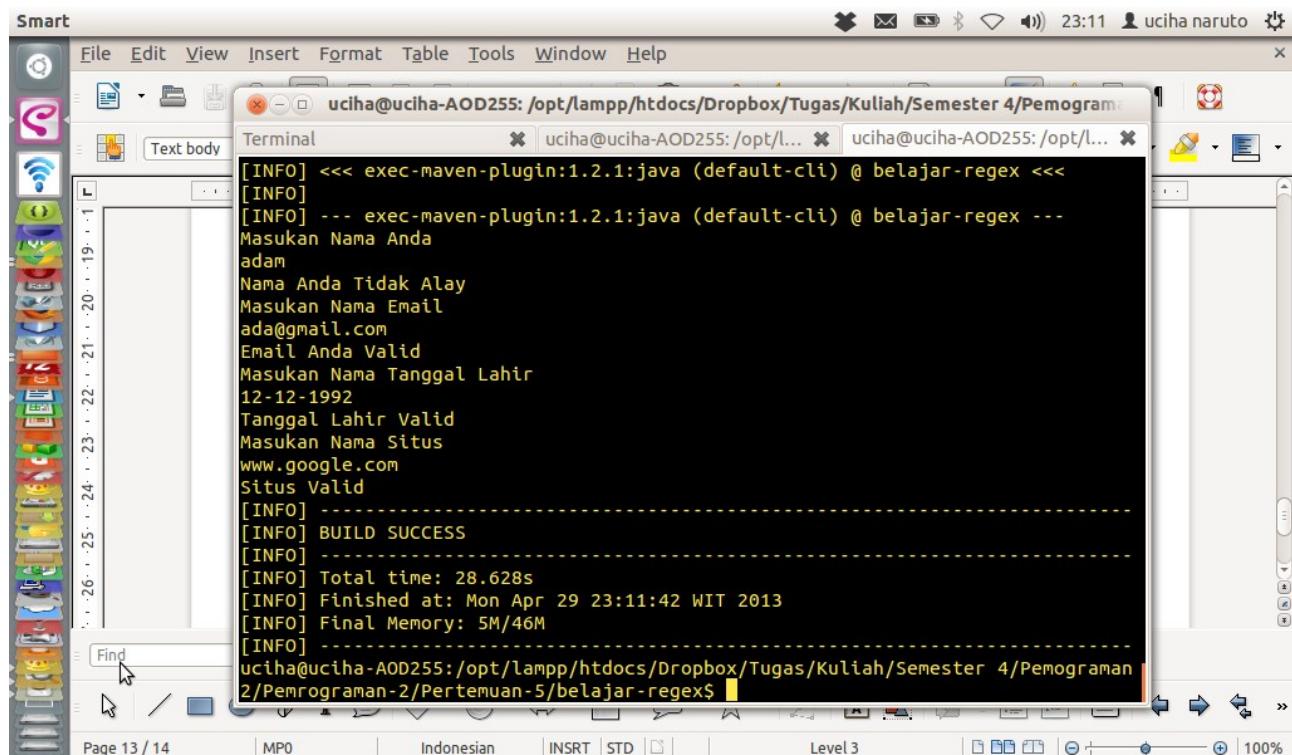
System.out.println("Masukan Nama Situs");
String Situs = data.nextLine();
String regexsitus = "[A-Za-z0-9]{1,}.[A-Za-z0-9]{1,}.?[A-Za-z0-9]{0,}";
if(Situs.matches(regexsitus)){
    System.out.println("Situs Valid");
}
else{
    System.out.println("Situs Tidak Valid");
}

}
}

```

13)mvn clean package

14)mvn exec:java -Dexec.mainClass=com.p2.regex.Soal

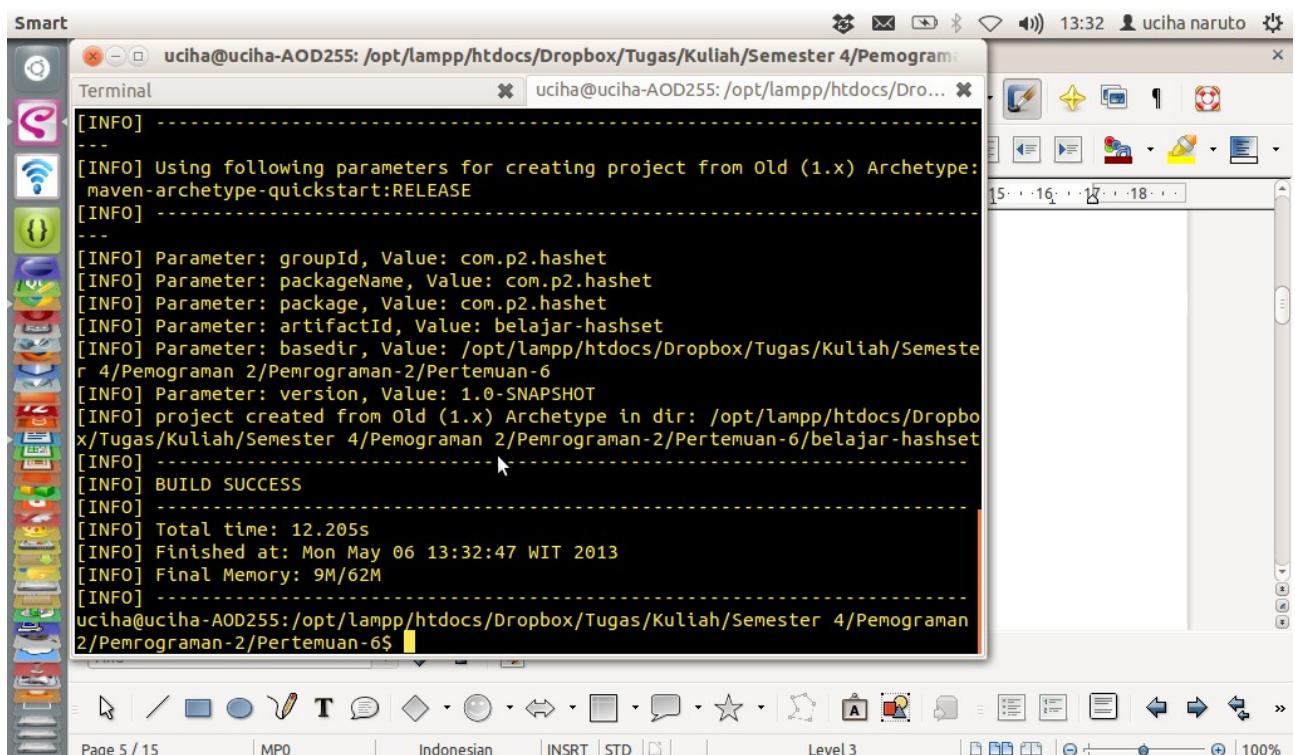


The screenshot shows a terminal window within a Smart IDE interface. The terminal output is as follows:

```
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-regex ---
Masukan Nama Anda
adam
Nama Anda Tidak Alay
Masukan Nama Email
ada@gmail.com
Email Anda Valid
Masukan Nama Tanggal Lahir
12-12-1992
Tanggal Lahir Valid
Masukan Nama Situs
www.google.com
Situs Valid
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 28.628s
[INFO] Finished at: Mon Apr 29 23:11:42 WIT 2013
[INFO] Final Memory: 5M/46M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-5/belajar-regex$
```

## Praktikum 6

1)mvn archetype:create -DgroupId=com.p2.hashet -DartifactId=belajar-hashset



The screenshot shows a terminal window titled "Terminal" with the command "mvn archetype:generate" run. The output log shows the creation of a project named "belajar-hashset" with groupId "com.p2.hashset" and version "1.0-SNAPSHOT". The process is completed successfully.

```
[INFO] [INFO] Using following parameters for creating project from Old (1.x) Archetype:  
[INFO] maven-archetype-quickstart:RELEASE  
[INFO] [INFO] Parameter: groupId, Value: com.p2.hashset  
[INFO] Parameter: packageName, Value: com.p2.hashset  
[INFO] Parameter: package, Value: com.p2.hashset  
[INFO] Parameter: artifactId, Value: belajar-hashset  
[INFO] Parameter: basedir, Value: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-6  
[INFO] Parameter: version, Value: 1.0-SNAPSHOT  
[INFO] project created from Old (1.x) Archetype in dir: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset  
[INFO] [INFO] BUILD SUCCESS  
[INFO] [INFO] Total time: 12.205s  
[INFO] Finished at: Mon May 06 13:32:47 WIT 2013  
[INFO] Final Memory: 9M/62M  
[INFO]  
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-6$
```

## 2)Buat BelajarList.java

```
package com.p2.hashset;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class BelajarList{  
    public static void main( String[] arg){  
        List ls = new ArrayList();  
        ls.add("satu");  
        ls.add("dua");  
        ls.add(new Integer(4));  
        ls.add(new Float(3.0f));  
        ls.add("dua");  
        ls.add(new Integer(4));  
    }  
}
```

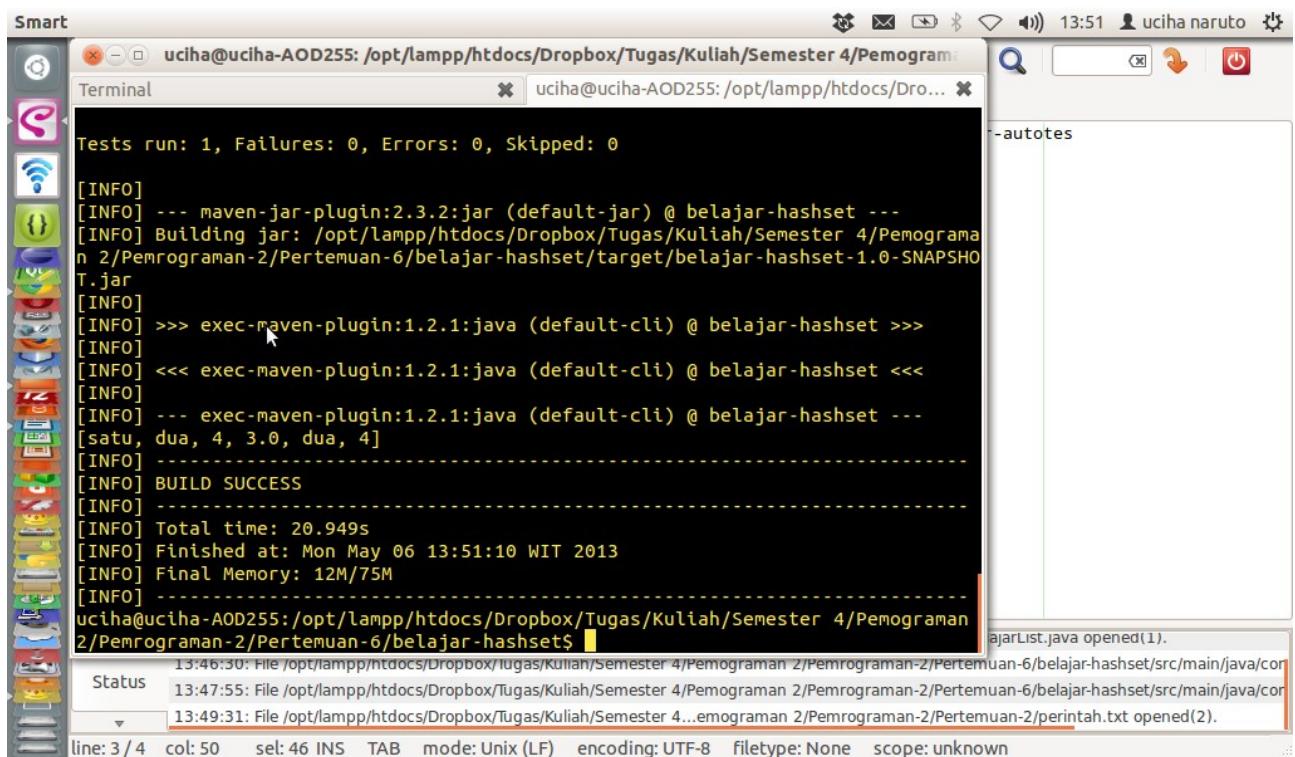
```

        System.out.println(ls);
    }

}

```

3)mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarList



The screenshot shows a terminal window titled "Terminal" with the command "mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarList" run. The output shows a successful build with no errors or warnings. The terminal is part of a desktop environment with icons for various applications like file manager, browser, and system tools.

```

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-hashset ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset/target/belajar-hashset-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset >>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset ---
[satu, dua, 4, 3.0, dua, 4]
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 20.949s
[INFO] Finished at: Mon May 06 13:51:10 WIT 2013
[INFO] Final Memory: 12M/75M
[INFO]
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset$ 

```

Status bar at the bottom:

- 13:46:30: File /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset/src/main/java/com...
- 13:47:55: File /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset/src/main/java/com...
- 13:49:31: File /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-2/perintah.txt opened(2).

line: 3 / 4 col: 50 sel: 46 INS TAB mode: Unix (LF) encoding: UTF-8 filetype: None scope: unknown

4)Buat BelajarHashSet.java

```
package com.p2.hashset;
```

```
import java.util.*;
```

```
public class BelajarHashSet{
```

```
    public static void main(String[] arg){
```

```
        Set set = new HashSet();
```

```
        set.add("satu");
```

```

        set.add("dua");

        set.add(new Integer(4));

        set.add(new Float(3.0f));

        set.add("dua");

        set.add(new Integer(4));

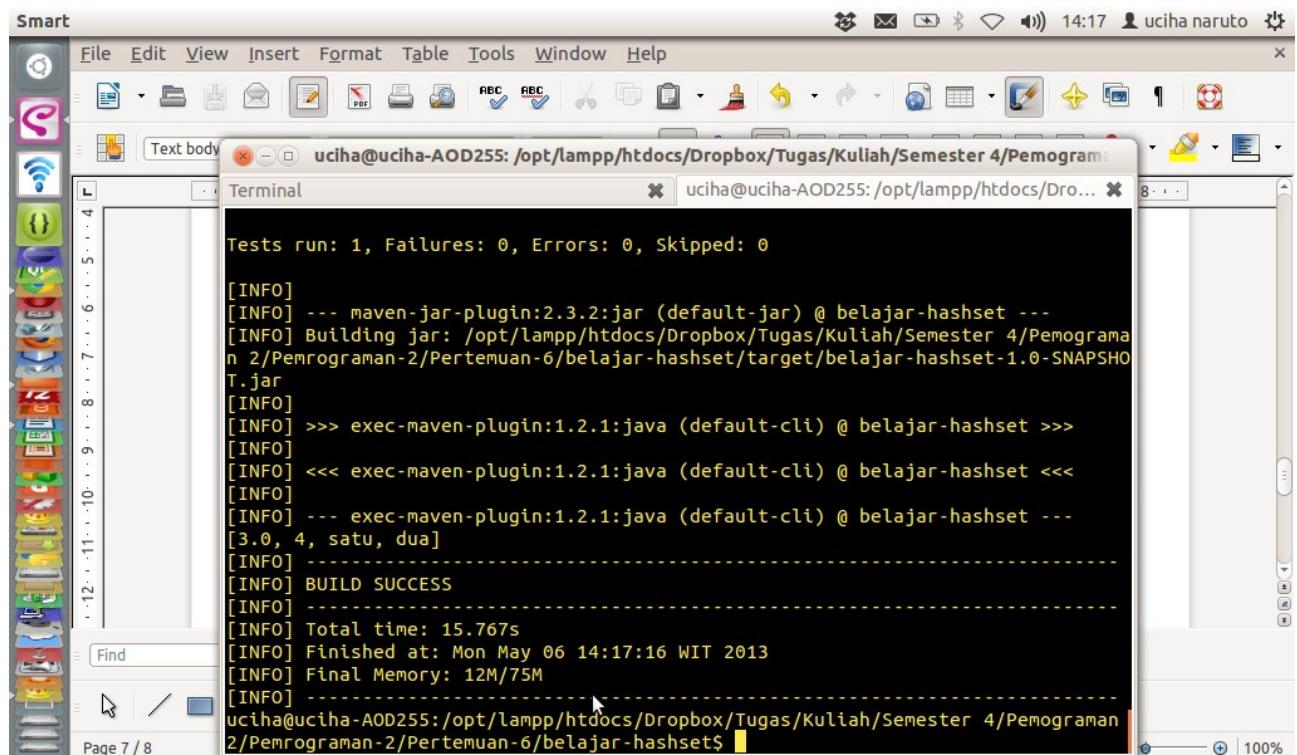
System.out.println(set);

}

}

```

5)mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarHashSet



The screenshot shows the Smart IDE interface with a terminal window open. The terminal output is as follows:

```

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-hashset ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pertemuan-6/belajar-hashset/target/belajar-hashset-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset ---
[INFO] [3.0, 4, satu, dua]
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 15.767s
[INFO] Finished at: Mon May 06 14:17:16 WIT 2013
[INFO] Final Memory: 12M/75M
[INFO]
[INFO] uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pertemuan-6/belajar-hashset$
```

6)Buat BelajarVector.java

```
package com.p2.hashset;
```

```
import java.util.Vector;
```

```
public class BelajarVector{  
    public static void main(String[] arg){  
        Vector v = new Vector();  
  
        v.add("Zak");  
        v.add("Gordon");  
        v.add(0,"Duke");  
        v.add("Lara");  
        v.add("Zak");  
        v.add(1,"Freyd");  
  
        System.out.println(v);  
  
        String nama = (String) v.get(2);  
        System.out.println(nama);  
    }  
}
```

7) mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarVector

Smart

File Edit View Insert Format Table Tools Window Help

Text body

Terminal

```
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-hashset ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset/target/belajar-hashset-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset ---
[Duke, Fredy, Zak, Gordon, Lara, Zak]
Zak
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 15.680s
[INFO] Finished at: Mon May 06 14:34:41 WIT 2013
[INFO] Final Memory: 12M/75M
[INFO]
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset$
```

8)Buat BelajarHashMap.java

```
package com.p2.hashset;

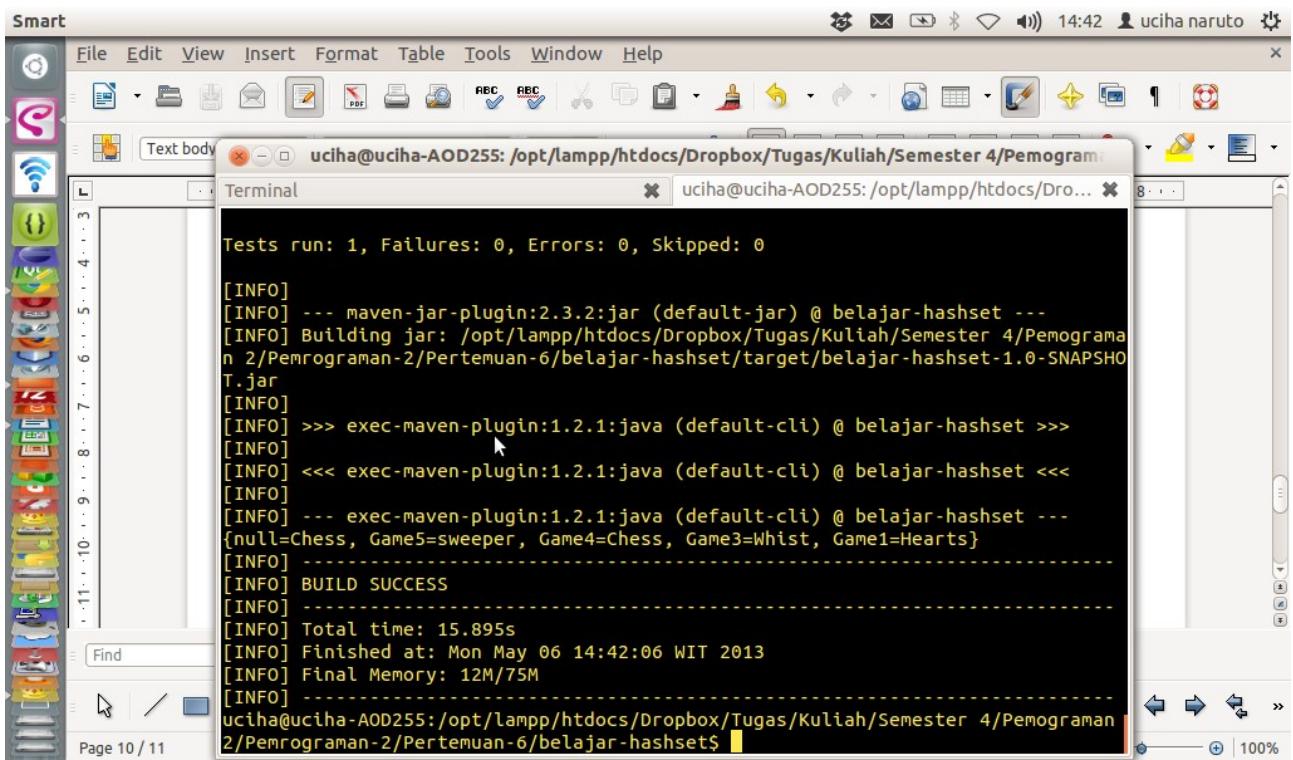
import java.util.HashMap;

public class BelajarHashMap{
    public static void main(String[] arg){
        HashMap hm = new HashMap();

        hm.put("Game1","Hearts");
        hm.put("Game5","sweeper");
        hm.put("Game3","Checker");
        hm.put("Game3","Whist");
        hm.put(null,"Chess");
        hm.put("Game4","Chess");

        System.out.println(hm);
    }
}
```

9)mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarHashMap



## 10)Buat BelajarSortedMap.java

```
package com.p2.hashset;
```

```
import java.util.SortedMap;
```

```
import java.util.TreeMap;
```

```
public class BelajarSortedMap{
```

```
    public static void main(String[] arg){
```

```
        SortedMap title = new TreeMap();
```

```
        title.put(new Integer(3), "Chicker");
```

```
        title.put(new Integer(1), "Euchre");
```

```
        title.put(new Integer(4), "Chess");
```

```
        title.put(new Integer(2), "Tic Tac Toe");
```

```

        System.out.println(title);

    }

}

```

11)mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.BelajarSortedMap

```

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-hashset ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset/target/belajar-hashset-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-hashset ---
{1=Eucre, 2=Tic Tac Toe, 3=Chicker, 4=Chess}
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 18.053s
[INFO] Finished at: Mon May 06 14:53:34 WIT 2013
[INFO] Final Memory: 12M/75M
[INFO]
[INFO] uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-6/belajar-hashset$ 

```

12)Buat Produk.java

```
package com.p2.hashset;
```

```

import java.util.List;
import java.util.ArrayList;
import java.math.BigDecimal;

```

```
public class Produk{
```

```

    private Integer id;
    private String nama;

```

```
private BigDecimal harga;  
  
public void setId(Integer x){  
    this.id=x;  
}  
  
public void setNama(String x){  
    this.nama=x;  
}  
  
public void setHarga(BigDecimal x){  
    this.harga=x;  
}  
  
public Integer getId(){  
    return this.id;  
}  
  
public String getNama(){  
    return this.nama;  
}  
  
public BigDecimal getHarga(){  
    return this.harga;  
}  
}
```

13)Buat TestProduk.java

```
package com.p2.hashset;
```

```
import java.util.List;  
import java.util.ArrayList;
```

```

import java.math.BigDecimal;

public class TestProduk{
    public static void main(String[] args){
        List<Produk> lp = new ArrayList<Produk>();

        Produk p = new Produk();
        Produk p2 = new Produk();

        p.setId(1);
        p.setNama("sedap");
        p.setHarga(new BigDecimal(1000));

        p2.setId(2);
        p2.setNama("mantap");
        p2.setHarga(new BigDecimal(1100));

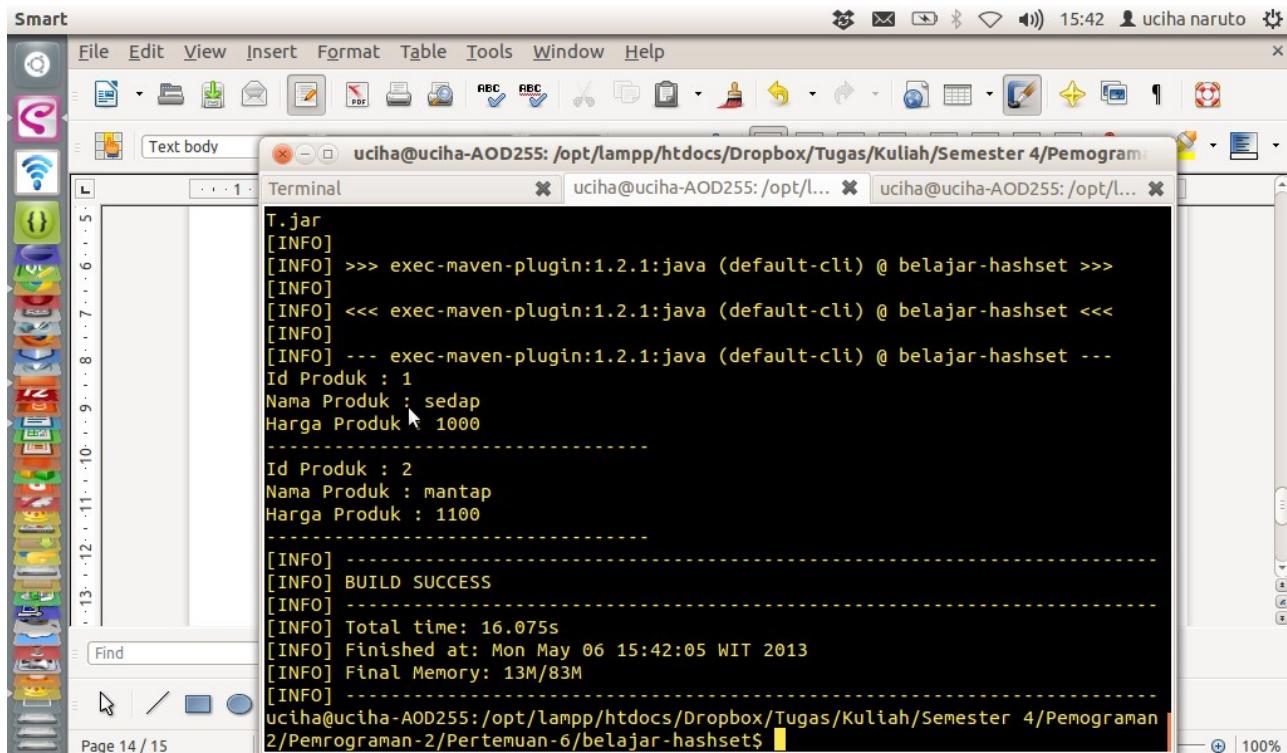
        lp.add(p);
        lp.add(p2);

        for(Produk pr : lp){
            System.out.println("Id Produk : "+pr.getId());
            System.out.println("Nama Produk : "+pr.getNama());
            System.out.println("Harga Produk : "+pr.getHarga());
            System.out.println("-----");
        }
    }
}

```

```
}
```

14)mvn clean package exec:java -Dexec.mainClass=com.p2.hashset.TestProduk



## Praktikum 7

1)mvn archetype:create -DgroupId=com.p2.belajardate -DartifactId=belajar-date

2)Buat file BelajarCal.java di main

```
package com.p2.belajardate;
```

```
import java.text.DateFormat;
```

```
import java.util.Calendar;
```

```
public class BelajarCal {
```

```
    public static void main(String[] args) {
```

```
        Calendar cal = Calendar.getInstance();
```

```
        DateFormat df =
```

```
        DateFormat.getDateInstance(DateFormat.FULL, DateFormat.MEDIUM);
```

```
        System.out.println(df.format(cal.getTime()));  
    }  
}
```

3)Buat File BelajarDate.java

```
package com.p2.belajardate;
```

```
import java.text.DateFormat;  
import java.text.SimpleDateFormat;  
import java.util.Calendar;  
import java.util.Date;
```

```
public class BelajarDate {
```

```
    public static void main(String[] args) {  
  
        System.out.println("Waktu sekarang");  
  
        DateFormat datFor = new SimpleDateFormat("yyyy/MM/dd HH:mm:ss");  
  
        Date dat = new Date();  
  
        System.out.println(datFor.format(dat));
```

```
        Calendar cal = Calendar.getInstance();  
  
        System.out.println(datFor.format(cal.getTime()));  
  
    }  
}
```

4)Buat File LatihanTanggal.java

```
package com.p2.belajardate;
```

```
import java.text.DateFormat;  
import java.text.SimpleDateFormat;
```

```

import java.util.*;

public class LatihanTanggal {
    public static void main(String[] args){
        showDateFormat();
        showSimpleDateFormat();
    }

    public static void showDateFormat(){
        Date now = new Date();
        System.out.println("Date toString() format: "+now.toString());

        DateFormat datFor = DateFormat.getInstance();
        System.out.println("Default Dateformat in west coast: "
+datFor.format(now));

        datFor.setTimeZone(TimeZone.getTimeZone("America/los_Angeles"));

        System.out.println("Default DateFormat in west coast: "
+datFor.format(now));

        datFor =
        DateFormat.getDateInstance(DateFormat.SHORT,DateFormat.SHORT,Locale.US);
        System.out.println("Short date time in US : "+datFor.format(now));

        datFor =
        DateFormat.getDateInstance(DateFormat.SHORT,DateFormat.SHORT,Locale.US);
        System.out.println("Medium date time in US: "+datFor.format(now));
    }
}

```

```

        datFor =
DateFormat.getTimeInstance(DateFormat.SHORT,DateFormat.SHORT,Locale.FRENCH);

        System.out.println("Short date time in French : "+datFor.format(now));

    }

public static void showSimpleDateFormat(){

    Date now = new Date();

    System.out.println("Date to String() format : "+now.toString());

    SimpleDateFormat simDatFor = new SimpleDateFormat();

    System.out.println("Default SimpleDateFormat : "+
simDatFor.format(now));

    simDatFor = new SimpleDateFormat("dd-MMM-YYYY");

    System.out.println("The FDA standart format : "+ simDatFor.format(now));

    simDatFor = new SimpleDateFormat("EEE MMM dd HH:mm:ss zzz yyyy");

    System.out.println("Date format : "+ simDatFor.format(now));

    simDatFor = new SimpleDateFormat("EEE MMM dd HH:mm:ss zzz yyyy",
Locale.FRENCH);

    System.out.println("Date format french : "+ simDatFor.format(now));

}

```

5)Buat File KonversiTanggal.java

```
package com.p2.belajardate;
```

```

import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Date;
import java.util.GregorianCalendar;

public class KonversiTanggal {
    private static void stringToDate(){
        try{
            Date dat1;
            dat1 = new SimpleDateFormat("MM/dd/yy").parse("07/06/01");
            System.out.println(dat1);

            Date dat2 = new SimpleDateFormat("MM/dd/yyyy").parse("07/06/2001");
            System.out.println(dat2);
        }catch(ParseException e){
            e.printStackTrace();
        }
    }

    private void calcDate(long msec){
        SimpleDateFormat simDatFor = new SimpleDateFormat("MMM dd.yyy HH:mm");
        Date hasilDat = new Date (msec);
        System.out.println(simDatFor.format(hasilDat));
    }
}

```

```

private void writeActualDate(){

    Calendar cal = new GregorianCalendar();

    Date creationDat = cal.getTime();

    SimpleDateFormat simDatFor = new SimpleDateFormat("MMM dd,yyyy hh:mm");

    System.out.println(simDatFor.format(creationDat));

}

public static void main(String[] args){

    KonversiTanggal kt = new KonversiTanggal();

    kt.stringToDate();

    kt.calcDate(System.currentTimeMillis());

    kt.writeActualDate();

}

}

```

6)Buat File JenisProduk.java

```

package com.p2.belajardate;

public class JenisProduk{

    private Integer id;

    private String namaJenis;

    public Integer getId(){

        return this.id;

    }

    public void setId(Integer id){

        this.id = id;

    }
}

```

```
public String getNamaJenis(){
    return this.namaJenis;
}

public void setNamaJenis(String namaJenis){
    this.namaJenis = namaJenis;
}

}
```

7)Buat File Produk.java

```
package com.p2.belajardate;

import java.math.BigDecimal;
import java.util.Date;

public class Produk{
    private Integer id;
    private String kodeProduk;
    private JenisProduk jp;
    private String nama;
    private BigDecimal harga;
    private Date waktuinput;

    public Integer getId(){
        return this.id;
    }

    public void setId(Integer id){
        this.id = id;
    }
}
```

```
public String getKodeProduk(){
    return this.kodeProduk;
}

public void setKodeProduk(String kodeProduk){
    this.kodeProduk = kodeProduk;
}

public JenisProduk getJp(){
    return this.jp;
}

public void setJp(JenisProduk jp){
    this.jp = jp;
}

public String getNama(){
    return this.nama;
}

public void setNama(String nama){
    this.nama = nama;
}

public BigDecimal getHarga(){
    return this.harga;
}

public void setHarga(BigDecimal harga){
    this.harga = harga;
}

public Date getWaktuInput(){
    return this.waktuinput;
}
```

```
public void setWaktuInput(Date waktuinput){  
    this.waktuinput = waktuinput;  
}  
  
}
```

### 8)ProdukDao.java

```
package com.p2.belajardate;  
  
import java.math.BigDecimal;  
import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.PreparedStatement;  
import java.sql.ResultSet;  
import java.sql.SQLException;  
import java.util.ArrayList;  
import java.util.Date;  
import java.util.List;  
import java.lang.String;  
  
public class ProdukDao {  
  
    public void simpanProduk(Produk p) throws SQLException{  
        Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
        String sqlSimpan = "INSERT INTO `produk`(`kodeProduk`, `idJenis`, `nama`, `harga`,
        `waktuInput`) VALUES (?,?,?,?,?)";
        PreparedStatement psSimpan = c.prepareStatement(sqlSimpan);
        psSimpan.setString(1, p.getKodeProduk());
    }
}
```

```

psSimpan.setInt(2, p.getJp().getId());
psSimpan.setString(3, p.getNama());
psSimpan.setBigDecimal(4, p.getHarga());
psSimpan.setDate(5, new java.sql.Date(p.getWaktuInput().getTime()));

psSimpan.executeUpdate();
c.close();
}

```

```

public List<Produk> tampilProduk() throws SQLException{
List<Produk> lp = new ArrayList<Produk>();
Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String sqlTampil = "SELECT * FROM produk ";
PreparedStatement psTampil = c.prepareStatement(sqlTampil);
ResultSet rs = psTampil.executeQuery();
while(rs.next()){
Produk p = new Produk();
p.setId(rs.getInt("id"));
p.setKodeProduk(rs.getString("kodeProduk"));
p.setNama(rs.getString("nama"));
p.setWaktuInput(rs.getDate("waktuInput"));

JenisProduk jp = jpByid(rs.getInt("idJenis"));
p.setJp(jp);

lp.add(p);
}

```

```

c.close();

return lp;

}

public JenisProduk jpByid(Integer id) throws SQLException{
JenisProduk jp = new JenisProduk();

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
String sqlTampilJenis = "SELECT * FROM jenis WHERE id=?";
PreparedStatement psTampilJenis = c.prepareStatement(sqlTampilJenis);
psTampilJenis.setInt(1, id);
ResultSet rs = psTampilJenis.executeQuery();
if(!rs.next()){
    return null;
}
jp.setId(rs.getInt("id"));
jp.setNamaJenis(rs.getString("namaJenis"));

c.close();

return jp;
}

```

9)cd belajar-date pada console

10)mvn clean package exec:java -Dexec.mainClass=com.p2.belajardate.BelajarCal

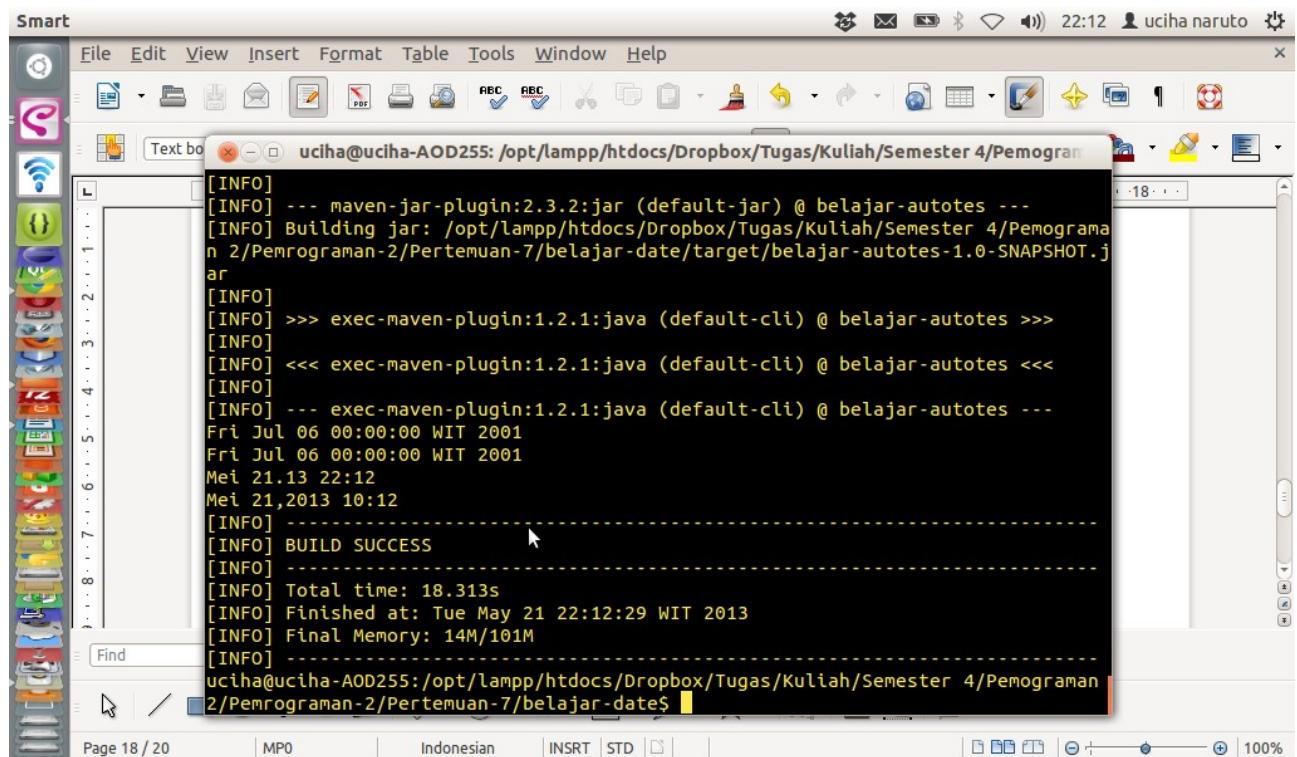
```
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/lib/junit-3.8.1.jar
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/lib/mysql-connector-java-5.1.18.jar
[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Selasa 21 Mei 2013 22:06:31
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 24.524s
[INFO] Finished at: Tue May 21 22:06:31 WIT 2013
[INFO] Final Memory: 14M/80M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date$ █
```

11)mvn clean package exec:java -Dexec.mainClass=com.p2.belajardate.BelajarDate

```
[INFO]
[INFO] --- maven-dependency-plugin:2.1:copy-dependencies (copy-dependencies) @ belajar-autotes ---
[INFO] Copying junit-3.8.1.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/lib/junit-3.8.1.jar
[INFO] Copying mysql-connector-java-5.1.18.jar to /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/lib/mysql-connector-java-5.1.18.jar
[INFO]
[INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Waktu sekarang
2013/05/21 22:08:08
2013/05/21 22:08:08
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 19.269s
[INFO] Finished at: Tue May 21 22:08:08 WIT 2013
[INFO] Final Memory: 14M/102M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date$ █
```

12)mvn clean package exec:java -Dexec.mainClass=com.p2.belajardate.KonversiTanggal



The screenshot shows a Smart Text Editor window with a terminal-like interface. The title bar reads "Smart" and "uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-7/belajar-date\$". The main pane displays the following Maven build log:

```
[INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes ---
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Fri Jul 06 00:00:00 WIT 2001
Fri Jul 06 00:00:00 WIT 2001
Mei 21.13 22:12
Mei 21,2013 10:12
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 18.313s
[INFO] Finished at: Tue May 21 22:12:29 WIT 2013
[INFO] Final Memory: 14M/101M
[INFO] -----
```

The bottom status bar shows "Page 18 / 20", "MPO", "Indonesian", "INSRT", "STD", and zoom controls.

13)mvn clean package exec:java -Dexec.mainClass=com.p2.belajardate.LatihanTanggal

```
[INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-7/belajar-date/target/belajar-autotes-1.0-SNAPSHOT.jar
[INFO]
[INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>>
[INFO]
[INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<<
[INFO]
[INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes ---
Date toString() format: Tue May 21 22:13:45 WIT 2013
Default Dateformat in west coast:21/05/13 22:13
Default DateFormat in west coast: 21/05/13 15:13
Short date time in US : 5/21/13 10:13 PM
Medium date time in US: 5/21/13 10:13 PM
Short date time in French : 21/05/13 22:13
Date to String() format : Tue May 21 22:13:45 WIT 2013
Default SimpleDateFormat : 21/05/13 22:13
[WARNING]
java.lang.reflect.InvocationTargetException
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:57)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
```

## Praktikum 8

1)mvn archetype:create -DgroupId=com.p2.belajardate -DartifactId=tugas-terlupakan

2)Buat file Main.java di main

```
package com.p2.tugas;
```

```
//mengimport library yang dibutuhkan untuk JDBC dengan menu pilihan
```

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
```

```

import java.util.logging.Logger;
import java.math.BigDecimal;
import java.util.Scanner;
import java.lang.String;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.text.ParseException;
import java.lang.reflect.InvocationTargetException;

public class Main
{
    public static void main( String[] args )
    {
        //inisialisasi tipe data Scanner untuk menginput data ke variabel data
        Scanner data = new Scanner(System.in);

        //variabel untuk pemilihan
        int pilih = 0;
        int pilih2 = 0;

        while(pilih != 4){
            System.out.println("==========");
            System.out.println("MENU PILIHAN");
            System.out.println("1. Tampil");
            System.out.println("2. Input");
            System.out.println("3. Pencarian");
            System.out.println("4. Keluar");
            System.out.print("Masukan Pilihan Anda : ");

```

```

//menginput data ke variabel pilih
pilih = data.nextInt();

//untuk inputan digeser ke baris baru agar dapat menginput string dengan
spasi

data.nextLine();

if(pilih == 1){

    System.out.println("=====");
    try{

        //membuat koneksi ke database
        Connection c =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/tugas_terlupakan","root","");
        //string untuk query
        String sqlTampil = "SELECT * FROM film ";
        //menyiapkan query untuk dieksekusi
        PreparedStatement psTampil =
        c.prepareStatement(sqlTampil);
        //mengeksekusi query
        ResultSet rs = psTampil.executeQuery();
        //menampilkan tabel setelah query dieksekusi

        System.out.println("\tid\t\tjudul\t\ttglRelease\t\trating\t\thargaFilm\t");
        //perulangan untuk menampilkan isi dari tabel yang telah
        dieksekusi

        while(rs.next()){

            System.out.print("\t"+rs.getInt("id")+"\t");
            System.out.print("\t"+rs.getString("judul")+"\t");
            System.out.print("\t"+rs.getDate("tglRelease")+"\t");
            System.out.print("\t"+rs.getInt("rating")+"\t");

```

```

        System.out.print("|\t"+rs.getDouble("hargaFilm")
+ "|t|\n");
    }

    //menutup koneksi
    c.close();
}

}catch(SQLException se){

    //membuang error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

}

System.out.println("=====");
}

else if(pilih == 2){

    //menginput judul,tanggal, rating,harga
    System.out.println("=====");
    System.out.print("Masukan Judul : ");
    String judul = data.nextLine();
    System.out.print("Masukan Tanggal Release (DD-MM-YYYY): ");
    String tanggal = data.nextLine();
    System.out.print("Masukan Rating : ");
    int rating = data.nextInt();
    System.out.print("Masukan Harga Film : ");
    BigDecimal harga = data.nextBigDecimal();

try{

    //pendeklarasi format date dalam string
    final String OLD_FORMAT = "dd-MM-yyyy";

```

```

final String NEW_FORMAT = "yyyy-MM-dd";

//memasukan variabel tanggal ke oldDateString
String oldDateString = tanggal;
String newDateString;

//mengkonversi format dari format lama ke format baru
SimpleDateFormat sdf = new
SimpleDateFormat(OLD_FORMAT);

Date d = sdf.parse(oldDateString);
sdf.applyPattern(NEW_FORMAT);
newDateString = sdf.format(d);

try{
    //membuat koneksi ke database
    Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/tugas_terlupakan","root","");
    //menyiapkan query ke dalam string
    String query = "INSERT INTO
film(judul,tglRelease,rating,hargaFilm) values (?,?,?+rating?,"+harga?);"

    //menyiapkan query statement untuk dieksekusi
    PreparedStatement ps =
conn.prepareStatement(query);
    //penginputan query pada setiap ?
    ps.setString(1,judul);
    ps.setString(2,newDateString);
    //mengeksekusi statement query
    ps.executeUpdate();
}

```

```
        }catch(SQLException se){
                //menghandle error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

        }

}catch(ParseException pe){
        //menghandel error tanggal

}

System.out.println("=====");
}

else if(pilih == 3){

System.out.println("=====");
System.out.print("Masukan Judul : ");
//menginput data yang ingin dicari

String cari = data.nextLine();

try{
        //membuat koneksi ke database

Connection c =
DriverManager.getConnection("jdbc:mysql://localhost:3306/tugas_terlupakan","root","");
//query dalam bentuk string

String sqlTampil = "SELECT * FROM film ";
//mempersiapkan query untuk dieksekusi

PreparedStatement psTampil =
c.prepareStatement(sqlTampil);
//Hasil eksekusi query dimasukan kedalam variabel rs

ResultSet rs = psTampil.executeQuery();
//menampilkan hasil query

while(rs.next()){


```

```

        if(cari.equals(rs.getString("judul"))){

System.out.println("=====");
System.out.println("id : "+rs.getInt("id"));
System.out.println("judul :
"+rs.getString("judul"));

System.out.println("tanggal release :
"+rs.getDate("tglRelease"));

System.out.println("rating :
"+rs.getInt("rating"));

System.out.println("harga :
"+rs.getDouble("hargaFilm"));

System.out.println("=====");
do{
System.out.println("MENU");

System.out.println("=====");
System.out.println("1.edit");
System.out.println("2.hapus");
System.out.println("3.keluar");

System.out.println("=====");
System.out.print("Pilih : ");
//menginput untuk pilihan ke 2
pilih2 = data.nextInt();
//NextLine agar dapat memasukan
String dengan spasi pada inputan berikutnya
data.nextLine();
}

```

```

if(pilih2 == 1){
    //memasukan
    judul,tangal,rating,dan harga yang akan diubah menjadi yg diinput
    System.out.print("Masukan Judul
: ");
    String judul = data.nextLine();
    System.out.print("Masukan
Tanggal Release (DD-MM-YYYY): ");
    String tanggal = data.nextLine();
    System.out.print("Masukan
Rating : ");
    int rating = data.nextInt();
    System.out.print("Masukan
Harga Film : ");
    BigDecimal harga =
    data.nextBigDecimal();
}

```

```

try{
    //pendeklarasian format
    date dalam string
    final String
    OLD_FORMAT = "dd-MM-yyyy";
    final String
    NEW_FORMAT = "yyyy-MM-dd";
}

//memasukan variabel
tanggal ke oldDateString
String oldDateString =
tanggal;

```

```

String newDateString;

//mengkonversi format
dari format lama ke format baru

SimpleDateFormat sdf =
new SimpleDateFormat(OLD_FORMAT);

Date d =
sdf.parse(oldDateString);

sdf.applyPattern(NEW_FORMAT);

newDateString =
sdf.format(d);

try{
//membuat koneksi
ke database

Connection conn
= DriverManager.getConnection("jdbc:mysql://localhost:3306/tugas_terlupakan","root","");
//query dalam
string

String query =
"UPDATE film SET judul=? , tglRelease=? , rating=? , hargaFilm=? WHERE id = ?";
//mempersiapkan
statement untuk dieksekusi

PreparedStatement ps = conn.prepareStatement(query);
//penginputan
query pada setiap ?

ps.setString(1,judul);

```

```

        ps.setDate(2,new
java.sql.Date(d.getTime()) );
        ps.setInt(3,rating);

        ps.setBigDecimal(4,harga);

        ps.setInt(5,rs.getInt("id"));

        //mengeksekusi
query

        ps.executeUpdate();

        }catch(SQLException se){
        //membuang error
sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

        }

        }catch(ParseException pe){
        //membuang error format
date

        }

System.out.println("=====");
        }

else if(pilih2 == 2){

        try{
        //membuat koneksi ke
database

        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/tugas_terlupakan","root","");
}

```

```

        //query dalam string

        String query = "DELETE

FROM film WHERE judul = '"+cari+"';

//membuat statement

untuk dieksekusi

PreparedStatement ps =

conn.prepareStatement(query);

//menampilkan

keterangan data yang dicari sudah dihapus

System.out.println("Data

"+cari+" dalam tabel film berhasil dihapus ");

//mengeksekusi query

ps.executeUpdate();

}catch(SQLException se){

//membuang error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

}

System.out.println("=====");

}

}while(pilih2 != 3);

}

//menutup koneksi database

c.close();

}catch(SQLException se){

//membuang error query

```

```
    Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);  
}  
}  
}  
  
System.out.println("Terima Kasih Sudah Menggunakan Program Ini");  
}  
}
```

*Penjelasan :*

1. *Membuat menu pilihan dari 1 – 4 ,*  
*1 untuk tampil ,*  
*2 untuk input*  
*3 untuk pencarian*  
*4 untuk keluar*
2. *Didalam Pencarian ada menu pilihan lagi*
  1. *untuk edit*
  2. *untuk hapus*
  3. *keluar dari menu pencarian*

3)mvn clean package exec:java -Dexec.mainClass=com.p2.tugas.Main

Tampil

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman man 2/Pemrograman-2/Pertemuan-8/tugas-terlupakan/target/lib/mysql-connector-java-5.1.18.jar [INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes --- [INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-8/tugas-terlupakan/target/belajar-autotes-1.0-SNAPSHOT.jar [INFO] [INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>> [INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<< [INFO] [INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes --- ===== MENU PILIHAN ===== 1. Tampil 2. Input 3. Pencarian 4. Keluar Masukan Pilihan Anda : 1 ===== | id | judul | tglRelease | rating | hargaFilm | | 1 | Power_Ranger | 2004-09-09 | 7 | 24000.0 | | 2 | Super Mario | 2002-01-19 | 9 | 27000.0 | ===== ===== MENU PILIHAN ===== 1. Tampil 2. Input 3. Pencarian 4. Keluar Masukan Pilihan Anda :
```

Input

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman man 2/Pemrograman-2/Pertemuan-8/tugas-terlupakan/target/lib/mysql-connector-java-5.1.18.jar [INFO] [INFO] --- maven-jar-plugin:2.3.2:jar (default-jar) @ belajar-autotes --- [INFO] Building jar: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemrograman 2/Pemrograman-2/Pertemuan-8/tugas-terlupakan/target/belajar-autotes-1.0-SNAPSHOT.jar [INFO] [INFO] >>> exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes >>> [INFO] <<< exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes <<< [INFO] [INFO] --- exec-maven-plugin:1.2.1:java (default-cli) @ belajar-autotes --- ===== MENU PILIHAN ===== 2. Input 3. Pencarian 4. Keluar Masukan Pilihan Anda : 2 ===== Masukan Judul : Digimon Masukan Tanggal Release (DD-MM-YYYY): 02-02-2007 Masukan Rating : 9 Masukan Harga Film : 13500 ===== ===== MENU PILIHAN ===== 1. Tampil 2. Input 3. Pencarian 4. Keluar Masukan Pilihan Anda : 1 ===== | id | judul | tglRelease | rating | hargaFilm | | 1 | Power_Ranger | 2004-09-09 | 7 | 24000.0 | | 2 | Super Mario | 2002-01-19 | 9 | 27000.0 | | 4 | Digimon | 2007-02-02 | 9 | 13500.0 | ===== ===== MENU PILIHAN ===== 1. Tampil 2. Input 3. Pencarian 4. Keluar Masukan Pilihan Anda : 
```

## Pencarian

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 23:19  uciha naruto 
Terminal root@uciha-AOD255: /opt/lampp  uciha@uciha-AOD255: /opt/lampp/htdoc...
Masukan Pilihan Anda : 1
=====
|   id   |   judul   |   tglRelease   |   rating   |   hargaFilm   |
|   1    | Power_Ranger | 2004-09-09 | 7          | 24000.0     |
|   2    | Super_Mario  | 2002-01-19 | 9          | 27000.0     |
|   4    | Digimon      | 2007-02-02 | 9          | 13500.0     |
=====

===== MENU PILIHAN =====
1. Tampil
2. Input
3. Pencarian
4. Keluar
Masukan Pilihan Anda : 3
=====
Masukan Judul : Digimon
=====
id : 4
judul : Digimon
tanggal release : 2007-02-02
rating : 9
harga : 13500.0
===== MENU =====
1.edit
2.hapus
3.keluar
=====
Pilih : 
```

Edit

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 23:21  uciha naruto 
Terminal root@uciha-AOD255: /opt/lampp  uciha@uciha-AOD255: /opt/lampp/htdoc...
2.hapus
3.keluar
=====
Pilih : 1
Masukan Judul : Digimon World
Masukan Tanggal Release (DD-MM-YYYY): 03-03-2006
Masukan Rating : 9
Masukan Harga Film : 13400
=====
MENU
1.edit
2.hapus
3.keluar
=====
Pilih : 3
=====
===== MENU PILIHAN =====
1. Tampil
2. Input
3. Pencarian
4. Keluar
Masukan Pilihan Anda : 1
=====
|   id   |   judul   |   tglRelease   |   rating   |   hargaFilm   |
|   1    | Power_Ranger | 2004-09-09 | 7          | 24000.0     |
|   2    | Super_Mario  | 2002-01-19 | 9          | 27000.0     |
|   4    | Digimon_World | 2006-03-03 | 9          | 13400.0     |
===== 
```

Hapus

```
uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemogramar Terminal 23:22 uciha naruto
Terminal root@uciha-AOD255: /opt/lampp uciha@uciha-AOD255: /opt/lampp/htdoc...
MENU
=====
1.edit
2.hapus
3.keluar
=====
Pilih : 2
Data Digimon World dalam tabel film berhasil dihapus
=====
MENU
=====
1.edit
2.hapus
3.keluar
=====
Pilih : 3
=====
MENU PILIHAN
1. Tampil
2. Input
3. Pencarian
4. Keluar
Masukan Pilihan Anda : 1
=====
|   id   |      judul      |      tglRelease    |      rating    |      hargaFilm  |
|   1    | Power_Ranger   | 2004-09-09      |      7        | 24000.0      |
|   2    | Super_Mario    | 2002-01-19      |      9        | 27000.0      |
=====
MENU PILIHAN
```

## Praktikum 9

1) Penggumpulan Hasil Praktikum 1 sd 8

## Praktikum 10

2) mvn archetype:create -DgroupId=com.p2.tugas -DartifactId=data-mahasiswa

3) Buat file Main.java di main

//package / folder java lokasi dimana java diletakan

```
package com.p2.tugas;
```

//mengimport library yang dibutuhkan untuk JDBC dengan menu pilihan

//untuk Membuat Koneksi

```
import java.sql.Connection;
```

//untuk menyambungkan koneksi database ke driver

```
import java.sql.DriverManager;
```

//untuk mempersiapkan statement query

```
import java.sql.PreparedStatement;
```

//Untuk Menghandle Error Sql

```
import java.sql.SQLException;
```

//untuk mengontrol output logging Level

```
import java.util.logging.Level;
```

//untuk mengontrol output logging logger

```
import java.util.logging.Logger;
```

//untuk membuat type data BigDecimal

```
import java.math.BigDecimal;
```

//untuk menginput Data

```

import java.util.Scanner;
//untuk membuat type data String
import java.lang.String;
//untuk menampilkan hasil dari query yang diekseksusi
import java.sql.ResultSet;
//untuk membuat format Date
import java.text.SimpleDateFormat;
//untuk membuat type data Date
import java.util.Date;
//untuk menghandle Error Konversi Date
import java.text.ParseException;
//menghendle error konstruktor
import java.lang.reflect.InvocationTargetException;

public class Main
{
    public static void TampilMahasiswa(){
        try{
            //membuat koneksi ke database
            Connection c =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
            //string untuk query
            String sqlTampil = "SELECT * FROM mahasiswa ";
            //menyiapkan query untuk dieksekusi
            PreparedStatement psTampil =
c.prepareStatement(sqlTampil);
            //mengeksekusi query
            ResultSet rs = psTampil.executeQuery();

```

```

//menampilkan tabel setelah query dieksekusi
System.out.println("\tnim\t|\tnama\t|");

//perulangan untuk menampilkan isi dari tabel yang telah
dieksekusi

while(rs.next()){
    System.out.print("\t"+rs.getString("nim")+"\t");
    System.out.print("\t"+rs.getString("nama")+"\t");
    System.out.println();
}

//menutup koneksi
c.close();

}catch(SQLException se){
    //membuang error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
}

public static void TampilMataKuliahAmbil(){
try{
    //membuat koneksi ke database
    Connection c =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
    //string untuk query
    String sqlTampil = "SELECT nim,nama,kode, namaMK
FROM mahasiswa m, mk_ambil mka, matkul mk WHERE m.id = mka.idMhs AND mk.id =
mka.idMk";
    //menyiapkan query untuk dieksekusi
    PreparedStatement psTampil =
    c.prepareStatement(sqlTampil);
}

```

```

//mengeksekusi query

ResultSet rs = psTampil.executeQuery();

//menampilkan tabel setelah query dieksekusi

System.out.println("\tnim\t|\tnama\t|\tkodeMK\t|\tnamaMK\t|");

//perulangan untuk menampilkan isi dari tabel yang telah
dieksekusi

while(rs.next()){

    System.out.print("\t"+rs.getString("nim")+"\t");
    System.out.print("\t"+rs.getString("nama")+"\t");
    System.out.print("\t"+rs.getString("kode")+"\t");
    System.out.print("\t"+rs.getString("namaMK")+"\t");
    System.out.println();

}

//menutup koneksi

c.close();

}catch(SQLException se){

    //membuang error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

}

public static void InputMahasiswa(String nim,String nama,String alamat,int semester){

try{

    //membuat koneksi ke database

    Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
    //menyiapkan query ke dalam string
}

```

```

String query = "INSERT INTO mahasiswa(nim,nama,alamat,smster) values
(?,?,?,?,?);

//menyiapkan query statement untuk dieksekusi

PreparedStatement ps = conn.prepareStatement(query);

//penginputan query pada setiap ?

ps.setString(1,nim);

ps.setString(2,nama);

ps.setString(3,alamat);

ps.setInt(4,semester);

//mengeksekusi statement query

ps.executeUpdate();

}catch(SQLException se){

//menghandle error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

}

}

public static void EditMahasiswa(String nimcari,String nim,String nama,String alamat,int
semester){

try{

//membuat koneksi ke database

Connection conn =

DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
//menyiapkan query ke dalam string

String query = "UPDATE mahasiswa SET nim = ?,nama = ?,alamat
= ?,smster = ? WHERE nim = ?";

//menyiapkan query statement untuk dieksekusi

PreparedStatement ps = conn.prepareStatement(query);

//penginputan query pada setiap ?

}

```

```

    ps.setString(1,nim);
    ps.setString(2,nama);
    ps.setString(3,alamat);
    ps.setInt(4,semester);
    ps.setString(5,nimcari);
    //mengeksekusi statement query
    ps.executeUpdate();
}catch(SQLException se){
    //menghandle error sql
    Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
}
}

public static void TampilMataKuliah(){
try{
    //membuat koneksi ke database
    Connection c =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
    //string untuk query
    String sqlTampil = "SELECT * FROM matkul ";
    //menyiapkan query untuk dieksekusi
    PreparedStatement psTampil =
    c.prepareStatement(sqlTampil);
    //mengeksekusi query
    ResultSet rs = psTampil.executeQuery();
    //menampilkan tabel setelah query dieksekusi
    System.out.println("|\tkode|t|tnama|t|tjumlah sks|t|");
    //perulangan untuk menampilkan isi dari tabel yang telah
    dieksekusi
}

```

```

        while(rs.next()){
            System.out.print("\t"+rs.getString("kode")+"\t");
            System.out.print("\t"+rs.getString("namaMK")+"\t");
            System.out.print("\t"+rs.getString("jmlSKS")+"\t");
            System.out.println();
        }
        //menutup koneksi
        c.close();
    }catch(SQLException se){
        //membuang error sql
        Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
    }
}

public static void TampilPilihanMataKuliah(){
    try{
        //membuat koneksi ke database
        Connection c =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
        //string untuk query
        String sqlTampil = "SELECT * FROM matkul ";
        //menyiapkan query untuk dieksekusi
        PreparedStatement psTampil =
        c.prepareStatement(sqlTampil);
        //mengeksekusi query
        ResultSet rs = psTampil.executeQuery();
        //perulangan untuk menampilkan isi dari tabel yang telah
        dieksekusi
    }
}

```

```

        int loop = 1;

        while(rs.next()){
            System.out.print(loop+"."+rs.getString("namaMK")+""
- );
            System.out.print(rs.getString("jmlSKS"));

            System.out.println();
            loop++;
        }

        //menutup koneksi
        c.close();

    }catch(SQLException se){
        //membuang error sql

        Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);
    }
}

public static void InputPilihanMataKuliah(int noMK,int idMhs){

    try{
        //membuat koneksi ke database
        Connection c =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
        //string untuk query
        String sqlTampil = "SELECT * FROM matkul ";
        //menyiapkan query untuk dieksekusi
        PreparedStatement psTampil =
        c.prepareStatement(sqlTampil);
        //mengeksekusi query
        ResultSet rs = psTampil.executeQuery();
    }
}

```

```

//perulangan untuk menampilkan isi dari tabel yang telah
dieksekusi

int loop = 1;

while(rs.next()){

if(loop == noMK){

try{

//membuat koneksi ke database

Connection conn2 =

DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
//menyiapkan query ke dalam string

String query2 = "INSERT INTO

mk_ambil(idMhs,idMk) values (?,?)";

//menyiapkan query statement untuk
dieksekusi

PreparedStatement ps2 =


conn2.prepareStatement(query2);

//penginputan query pada setiap ?

ps2.setInt(1,idMhs);

ps2.setInt(2,rs.getInt("id"));

//mengeksekusi statement query

ps2.executeUpdate();

}catch(SQLException se2){

//membuang error sql

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se2);

}

loop++;
}

```

```

        //menutup koneksi
        c.close();

    }catch(SQLException se){
        //membuang error sql

        Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

    }

    public static void TambahMataKuliah(String kode,String namaMK,int jumSks,java.sql.Date date){

        try{
            //membuat koneksi ke database
            Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
            //menyiapkan query ke dalam string
            String query = "INSERT INTO matkul(kode,namaMK,jmlSKS,tglUas) values
(?,?,?,?,?)";
            //menyiapkan query statement untuk dieksekusi
            PreparedStatement ps = conn.prepareStatement(query);
            //penginputan query pada setiap ?
            ps.setString(1,kode);
            ps.setString(2,namaMK);
            ps.setInt(3,jumSks);
            ps.setDate(4,date);
            //mengeksekusi statement query
            ps.executeUpdate();
        }catch(SQLException se){
            //menghandle error sql

```

```

        Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

    }

}

public static void main( String[] args )

{

    //inisialisasi tipe data Scanner untuk menginput data ke variabel data

    Scanner data = new Scanner(System.in);

    //variabel untuk pemilihan

    int pilih = 0;

    int pilih2 = 0;

    System.out.println("=====");

    System.out.println("Nama : Fajar Muhammad F");

    System.out.println("Nim : 4511210022");

    while(pilih != 7){

        System.out.println("=====");

        //Menampilkan Keterangan menu pilihan

        System.out.println("MENU PILIHAN");

        System.out.println("1. Tampil Daftar Mahasiswa");

        System.out.println("2. Input Mahasiswa");

        System.out.println("3. Pencarian Mahasiswa");

        System.out.println("4. Tampil Daftar Mata Kuliah");

        System.out.println("5. Tambah Mata Kuliah");

        System.out.println("6. Tampil Daftar Mahasiswa + Mata Kuliah yang

diambil");

        System.out.println("7. Keluar");

        System.out.print("Masukan Pilihan Anda : ");

        //menginput data ke variabel pilih
}

```

```

pilih = data.nextInt();

//untuk inputan digeser ke baris baru agar dapat menginput string dengan
spasi

data.nextLine();

if(pilih == 1){

    System.out.println("=====");
    //Memanggil fungsi TampilMahasiswa

    TampilMahasiswa();

    System.out.println("=====");
}

else if(pilih == 2){

    System.out.println("=====");
    System.out.print("Masukan nim : ");
    //Menginput Data dan memasukan ke dalam variabel nim

    String nim = data.nextLine();

    System.out.print("Masukan Nama : ");
    //Menginput Data dan memasukan ke dalam variabel nama

    String nama = data.nextLine();

    System.out.print("Masukan Alamat : ");
    //Menginput Data dan memasukan ke dalam variabel alamat

    String alamat = data.nextLine();

    //Memanggil fungsi InputMahasiswa dengan memasukan parameter
    InputMahasiswa(nim,nama,alamat,1);

}

else if(pilih == 3){

```

```

System.out.println("=====");
System.out.print("Masukan Nim : ");
//menginput data yang ingin dicari
String cari = data.nextLine();
try{
    //membuat koneksi ke database
    Connection c =
DriverManager.getConnection("jdbc:mysql://localhost:3306/p2","root","");
    //query dalam bentuk string
    String sqlTampil = "SELECT * FROM mahasiswa ";
    //mempersiapkan query untuk dieksekusi
    PreparedStatement psTampil =
c.prepareStatement(sqlTampil);
    //Hasil eksekusi query dimasukan kedalam variabel rs
    ResultSet rs = psTampil.executeQuery();
    //Membuat variable untuk menghitung pencarian saat tidak
bertemu
    int hitungPencarian = 1;
    //menampilkan hasil query
    while(rs.next()){
        //Jika Pencarian Data Ditemukan
        if(cari.equals(rs.getString("nim"))){

System.out.println("=====");
System.out.println("Data Ditemukan");

System.out.println("=====");
//Menampilkan nim beserta Isi

```

```

System.out.println("nim :");
"+rs.getString("nim"));
//Menampilkan nama beserta Isi

System.out.println("nama :");
"+rs.getString("nama"));
//Menampilkan alamat beserta Isi

System.out.println("alamat :");
"+rs.getString("alamat"));
//Menampilkan semester beserta Isi

System.out.println("semester :");
"+rs.getString("smster"));

System.out.println("=====");
do{

System.out.println("=====");
System.out.println("MENU PILIHAN");
System.out.println("1.Edit Mahasiswa");
System.out.println("2.Tambah MataKuliah");
System.out.println("3.Keluar");
System.out.print("Pilih : ");
//Memasukan Data dan memasukan ke variabel
pilih2
pilih2 = data.nextInt();
//untuk inputan digeser ke baris baru agar
dapat menginput string dengan spasi
data.nextLine();
//Menu Pemilihan Kedua
//Jika Pilih2 = 1

```

```

if(pilih2 == 1){

System.out.println("=====");
System.out.print("Masukan nim : ");
//Menginput Data ke dalam variabel nim
String nim = data.nextLine();
System.out.print("Masukan Nama : ");
//Menginput Data ke dalam variabel
nama
String nama = data.nextLine();
System.out.print("Masukan Alamat : ");
//Menginput Data ke dalam variabel
alamat
String alamat = data.nextLine();
System.out.print("Masukan Semester : ");
//Menginput Data ke dalam variabel
semester
int semester = data.nextInt();

//Memanggil fungsi EditMahasiswa
dengan memasukan parameter
EditMahasiswa(cari,nim,nama,alamat,semester);

}//Jika Pilih2 = 2
else if(pilih2 == 2){

System.out.println("=====");
}

```

```

System.out.println("Pilihan Mata
Kuliah");
//Memanggil fungsi
TampilPilihanMataKuliah

TampilPilihanMataKuliah();
System.out.print("Masukan No Mata
Kuliah : ");
//Menginput Data dan memasukan ke
variabel noMK

int noMK = data.nextInt();
//Memanggil fungsi
InputPilihanMataKuliah dan memasukan parameternya

InputPilihanMataKuliah(noMK,rs.getInt("id"));

}

}while(pilih2 != 3);

hitungPencarian = 0;

}

//Data Tidak Ditemukan

if(hitungPencarian == 1){

System.out.println("=====");
System.out.println("Data Tidak Ditemukan");
System.out.println("=====");

}

//menutup koneksi database

c.close();

}catch(SQLException se){

//membuang error query

```

```

Logger.getLogger(Main.class.getName()).log(Level.SEVERE,null,se);

}

else if(pilih == 4){

System.out.println("=====");
//Memanggil Fungsi TampilMataKuliah

TampilMataKuliah();

System.out.println("=====");

}

else if(pilih == 5){

System.out.println("=====");
System.out.print("Masukan kode : ");
//Menginput Data dan memasukan ke variabel kode

String kode = data.nextLine();

System.out.print("Masukan Nama : ");
//Menginput Data dan memasukan ke variabel namaMK

String namaMK = data.nextLine();

System.out.print("Masukan Jumlah SKS : ");
//Menginput Data dan memasukan ke variabel jumSks

int jumSks = data.nextInt();




//Membuat Objek Date baru

Date utilDate = new Date();
//membuat Objek Date Sql dari Objek Date Java

java.sql.Date date = new java.sql.Date(utilDate.getTime());

```

```

//Memanggil FungsiTambahMataKuliah dengan memasukan
parameternya

    TambahMataKuliah(kode,namaMK,jumSks,date);

    System.out.println("=====");
}

else if(pilih == 6){

    System.out.println("=====");
    //Memanggil Fungsi TampilMataKuliahAmbil

    TampilMataKuliahAmbil();

    System.out.println("=====");
}

//Keterangan setelah keluar Program

System.out.println("Terima Kasih Sudah Menggunakan Program Ini");

}
}

```

*Penjelasan :*

1. *Tampil Daftar Mahasiswa*

*Nim : ....*

*Nama : ...*

*...*

2. *Input Mahasiswa*

*Nim : ...*

*Nama : ...*

*Alamat : ...*

3. *Cari Mahasiswa*

*Nim : ...*

*Nama : ...*

*Alamat : ...*

*Semester : ...*

### *3.1 edit Mahasiswa*

*Nim : ...*

*Nama : ...*

*Alamat : ...*

*Semester : ...*

### *3.2 Tambah Mata Kuliah*

*Pilihan Mata Kuliah*

*1.PI2 - 2SKS*

*2.P2 - 3SKS*

### *3.3 Kembali Ke Menu Utama*

## *4. Tampil Daftar Mata Kuliah*

*Kode : ...*

*Nama : ...*

*Jumlah SKS : ...*

## *5. Tambah Mata Kuliah*

*Kode : ...*

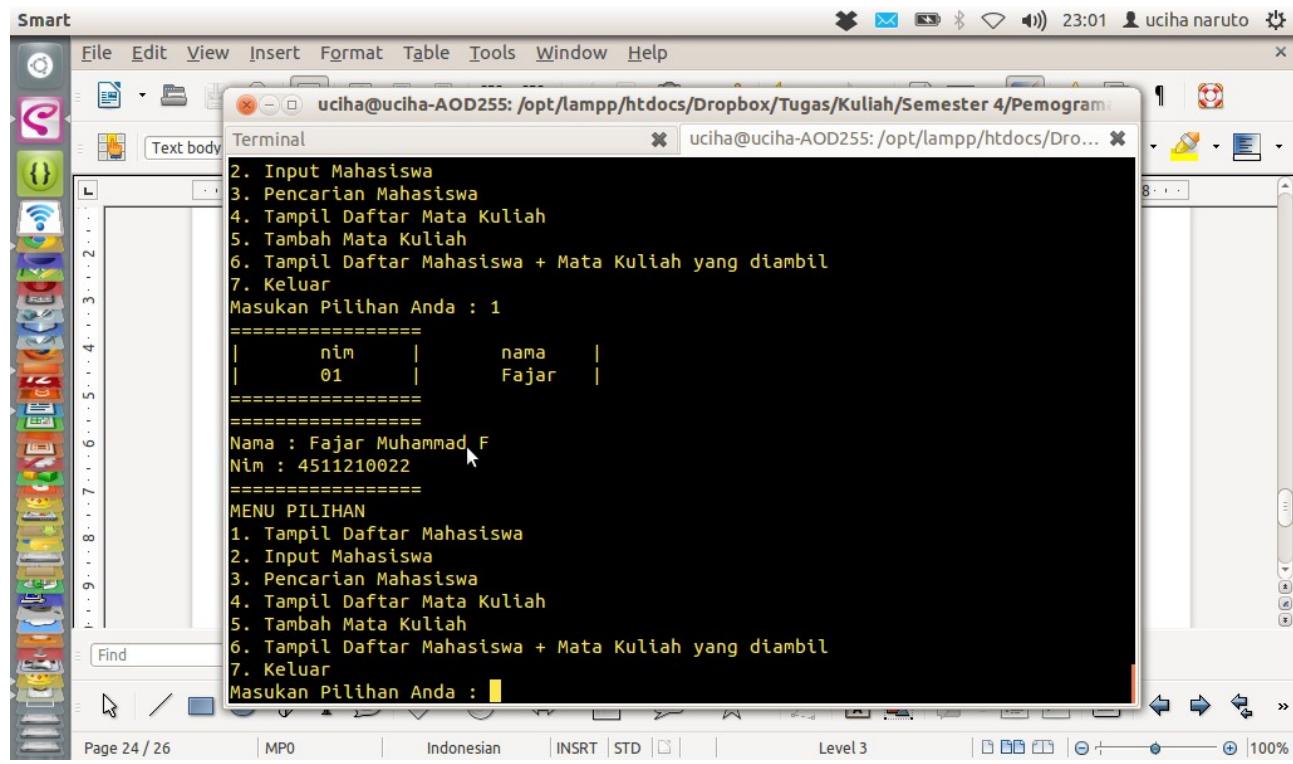
*Nama : ...*

*Jumlah SKS : ...*

## *6. Exit*

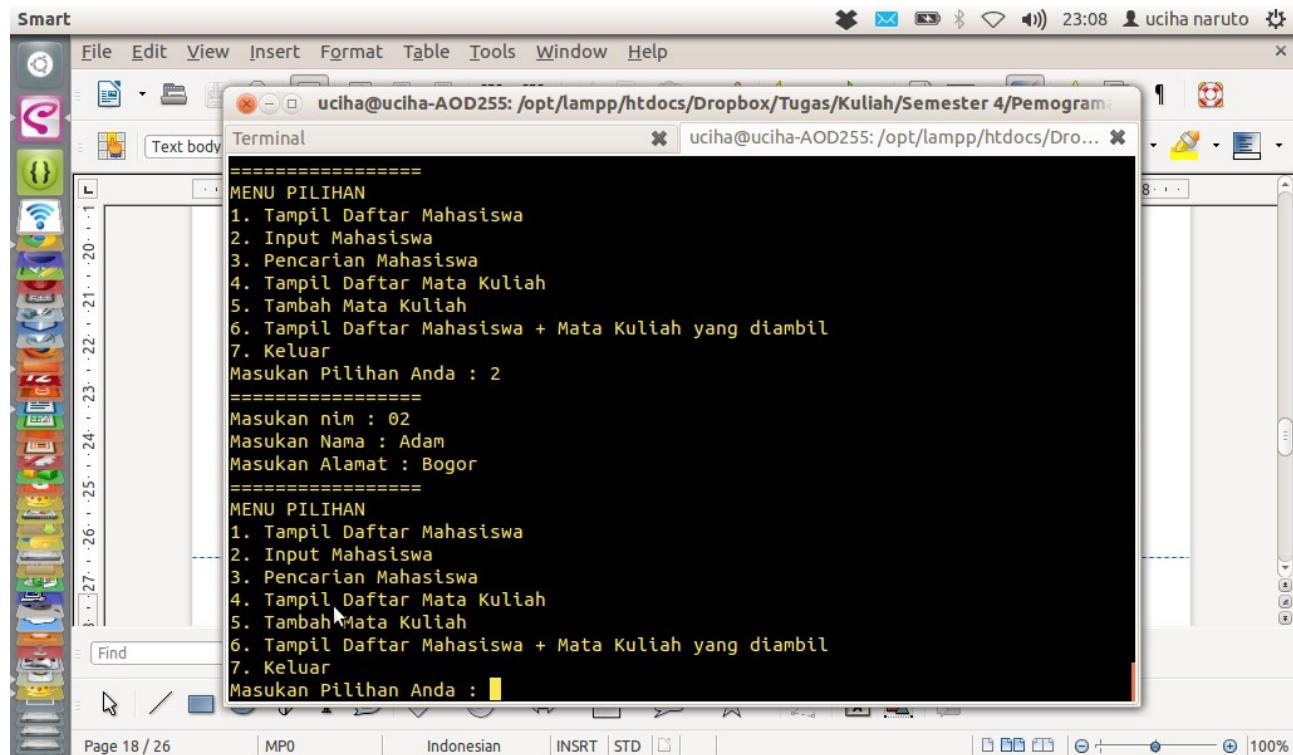
4)mvn clean package exec:java -Dexec.mainClass=com.p2.tugas.Main

### Tampil Daftar Mahasiswa



```
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 1
=====
|      nim      |      nama      |
|      01       |      Fajar      |
=====
Nama : Fajar Muhammad F
Nim : 4511210022
=====
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

Input



```
=====
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 2
=====
Masukan nim : 02
Masukan Nama : Adam
Masukan Alamat : Bogor
=====
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

## Pencarian (Data tidak ditemukan)

```
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 3
=====
Masukan Nim : 03
=====
Data Tidak Ditemukan
=====
=====
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

## Pencarian (Data ditemukan)

```
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 3
=====
Masukan Nim : 01
=====
Data Ditemukan
=====
nim : 01
nama : Fajar
alamat : cibinong
semester : 3
=====
=====
MENU PILIHAN
1.Edit Mahasiswa
2.Tambah MataKuliah
3.Keluar
Pilih :
```

## Edit Mahasiswa

The screenshot shows a terminal window titled "Terminal" running on a Linux desktop environment. The window displays a menu and some data. The menu includes options like "Edit Mahasiswa", "Tambah MataKuliah", and "Keluar". It also prompts for input, such as "Masukan nim : 01" and "Masukan Nama : Fajar". The background shows a desktop interface with various icons and a status bar at the top.

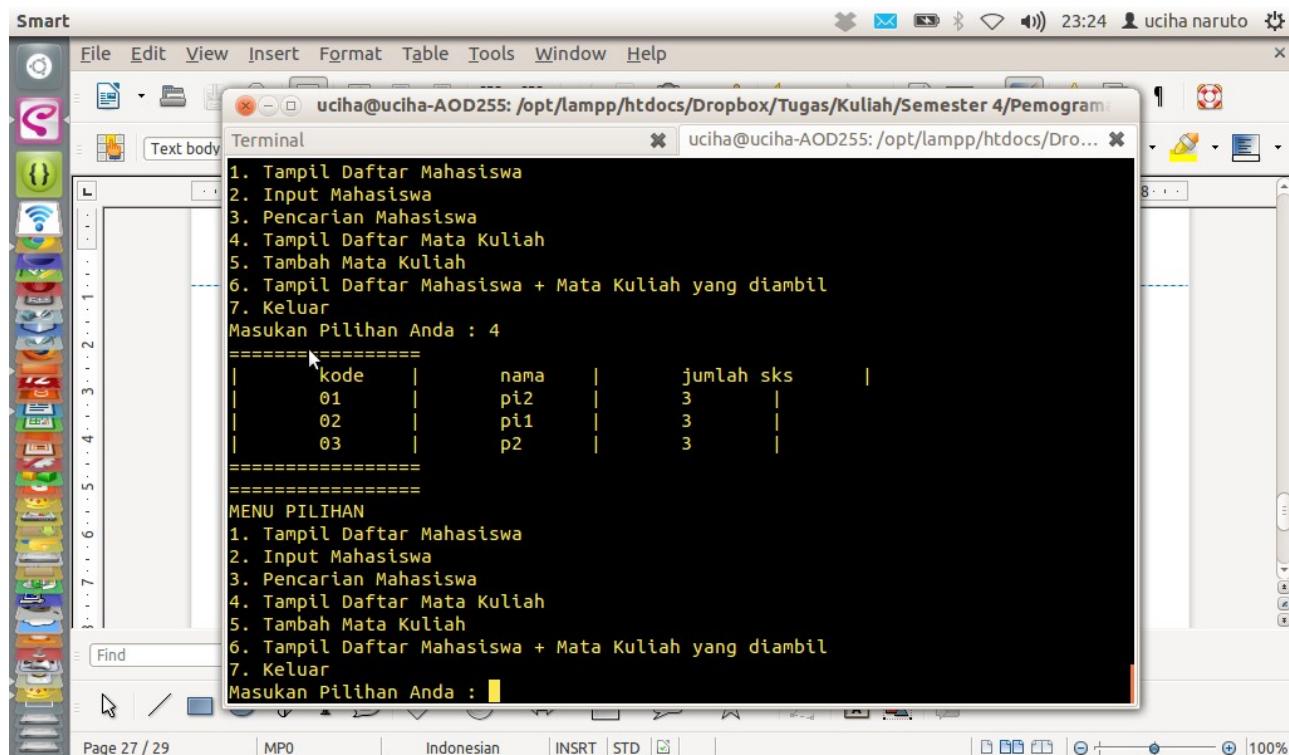
```
Data Ditemukan
=====
nim : 01
nama : Fajar
alamat : cibinong
semester : 3
=====
MENU PILIHAN
1.Edit Mahasiswa
2.Tambah MataKuliah
3.Keluar
Pilih : 1
=====
Masukan nim : 01
Masukan Nama : Fajar
Masukan Alamat : Bogor
Masukan Semester : 4
=====
MENU PILIHAN
1.Edit Mahasiswa
2.Tambah MataKuliah
3.Keluar
Pilih :
```

## Tambah Mata Kuliah

The screenshot shows a terminal window titled "Terminal" running on a Linux desktop environment. The window displays a menu and some data. The menu includes options like "Edit Mahasiswa", "Tambah MataKuliah", and "Keluar". It also prompts for input, such as "Masukan No Mata Kuliah : 1". The background shows a desktop interface with various icons and a status bar at the top. On the left, there is a "phpMyAdmin" interface showing database tables.

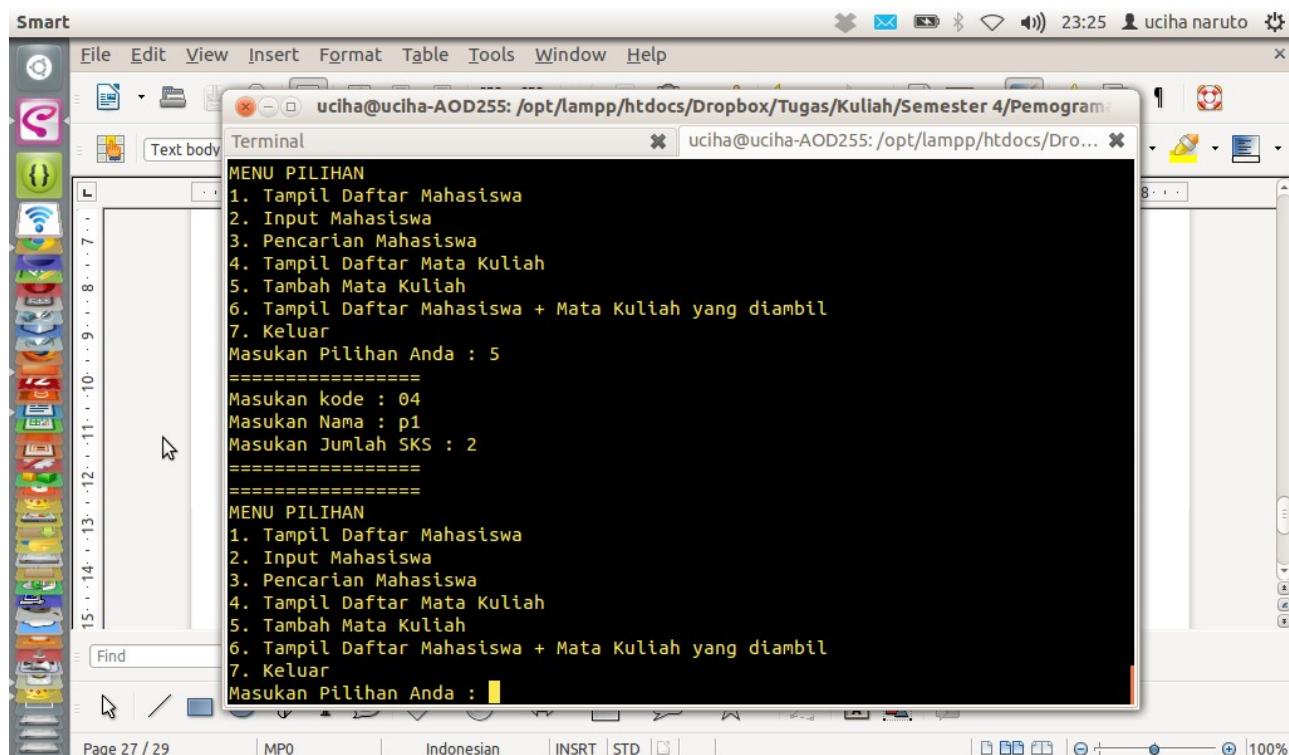
```
=====
nim : 01
nama : Fajar
alamat : Bogor
semester : 4
=====
MENU PILIHAN
1.Edit Mahasiswa
2.Tambah MataKuliah
3.Keluar
Pilih : 2
=====
Pilihan Mata Kuliah
1.pi2 - 3
2.pi1 - 3
3.p2 - 3
Masukan No Mata Kuliah : 1
=====
MENU PILIHAN
1.Edit Mahasiswa
2.Tambah MataKuliah
3.Keluar
Pilih :
```

## Tampil Daftar Mata Kuliah



```
Smart
File Edit View Insert Format Table Tools Window Help
Terminal uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemogram
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 4
=====
|   kode   |   nama    | jumlah sks |
|   01     |   pi2     |      3      |
|   02     |   pi1     |      3      |
|   03     |   p2      |      3      |
=====
===== MENU PILIHAN =====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

## Tambah Mata Kuliah



```
Smart
File Edit View Insert Format Table Tools Window Help
Terminal uciha@uciha-AOD255: /opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemogram
=====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 5
=====
Masukan kode : 04
Masukan Nama : pi1
Masukan Jumlah SKS : 2
=====
===== MENU PILIHAN =====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

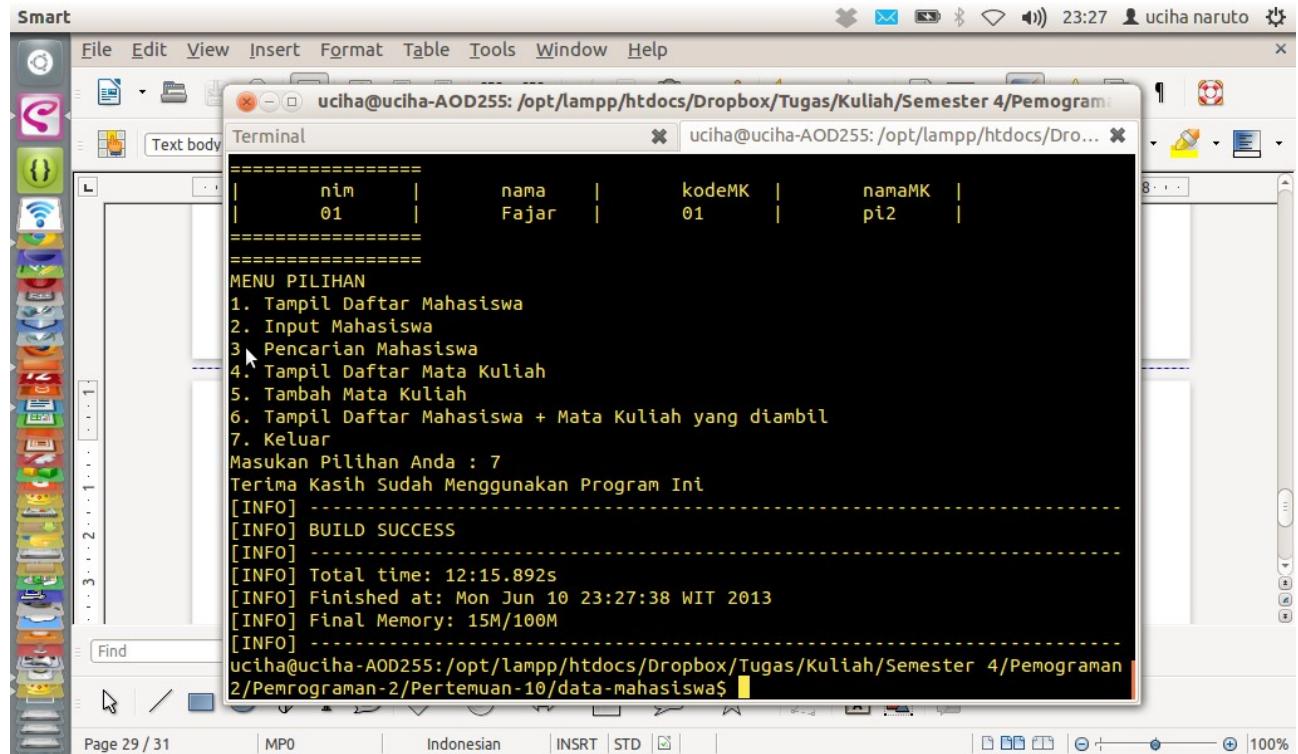
## Tampil Daftar Mata Kuliah (Setelah Input)

```
Smart
Terminal
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 4
=====
| kode | nama | jumlah sks |
| 01   | pi2  | 3      |
| 02   | pi1  | 3      |
| 03   | p2   | 3      |
| 04   | p1   | 2      |
=====
===== MENU PILIHAN =====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 6
=====
| nim | nama | kodeMK | namaMK |
| 01  | Fajar | 01     | pi2    |
=====
===== MENU PILIHAN =====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

## Tampil Daftar Mahasiswa + Mata Kuliah yang diambil

```
Smart
File Edit View Insert Format Table Tools Window Help
Terminal
=====
MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda : 6
=====
| nim | nama | kodeMK | namaMK |
| 01  | Fajar | 01     | pi2    |
=====
===== MENU PILIHAN =====
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar
Masukan Pilihan Anda :
```

## Keluar



The screenshot shows a terminal window titled "Terminal" running on a Linux system. The window displays a menu and some program logs.

```
=====
|      nim      |      nama      |      kodeMK      |      namaMK      |
|      01       |      Fajar     |      01         |      pi2        |
=====

MENU PILIHAN
1. Tampil Daftar Mahasiswa
2. Input Mahasiswa
3. Pencarian Mahasiswa
4. Tampil Daftar Mata Kuliah
5. Tambah Mata Kuliah
6. Tampil Daftar Mahasiswa + Mata Kuliah yang diambil
7. Keluar

Masukan Pilihan Anda : 7
Terima Kasih Sudah Menggunakan Program Ini
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 12:15.892s
[INFO] Finished at: Mon Jun 10 23:27:38 WIT 2013
[INFO] Final Memory: 15M/100M
[INFO] -----
uciha@uciha-AOD255:/opt/lampp/htdocs/Dropbox/Tugas/Kuliah/Semester 4/Pemograman 2/Pemrograman-2/Pertemuan-10/data-mahasiswa$
```

## **Kesimpulan**

Dengan diajarkannya mata kuliah Pemograman 2 saya semakin mengerti tentang membuat program yang baik.

Dan kedepannya semoga dengan bekal ilmu yang telah diajarkan di Mata Kuliah Pemograman 2 Ini bisa diterapkan dalam kehidupan sehari hari agar dapat bermanfaat bagi semua orang.

## **Daftar Pustaka**

Referensi

Study Mata Kuliah Pemograman 2

Modul Praktikum Pemograman 2

<http://id.wikipedia.org/wiki/Java>

<http://www.google.com>