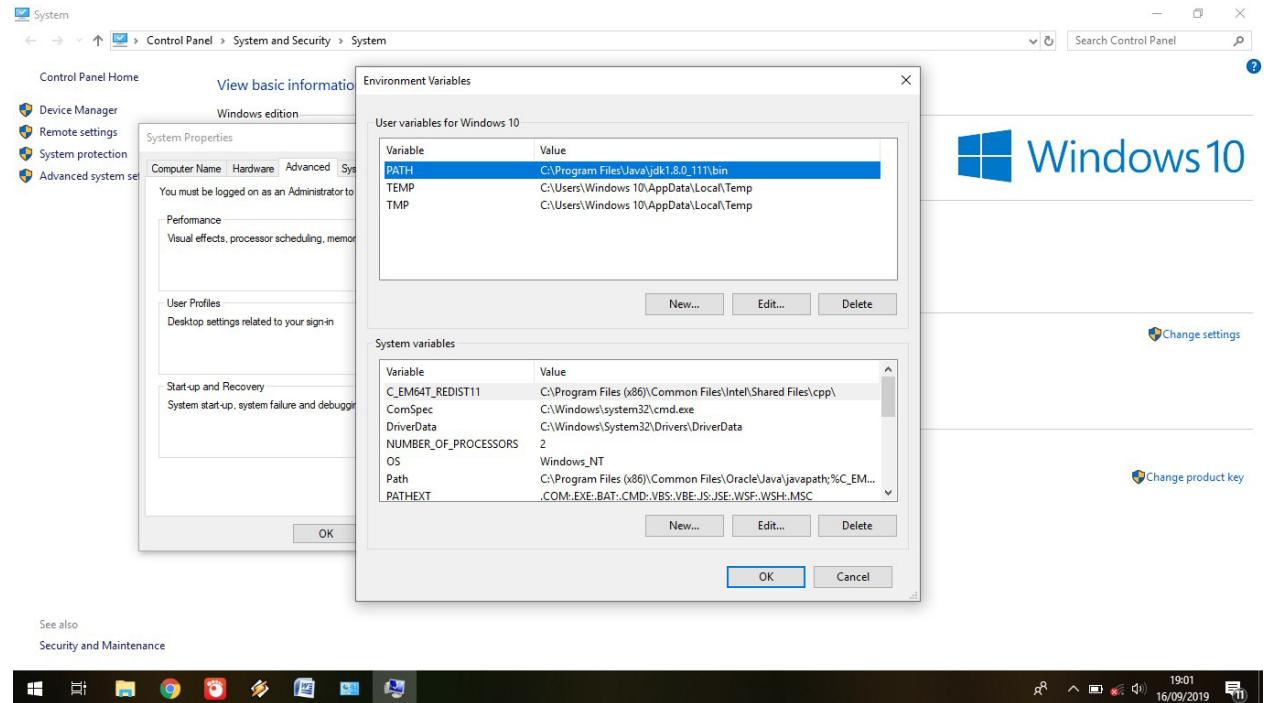


NAMA : VENY FITRIANA ISNAINI

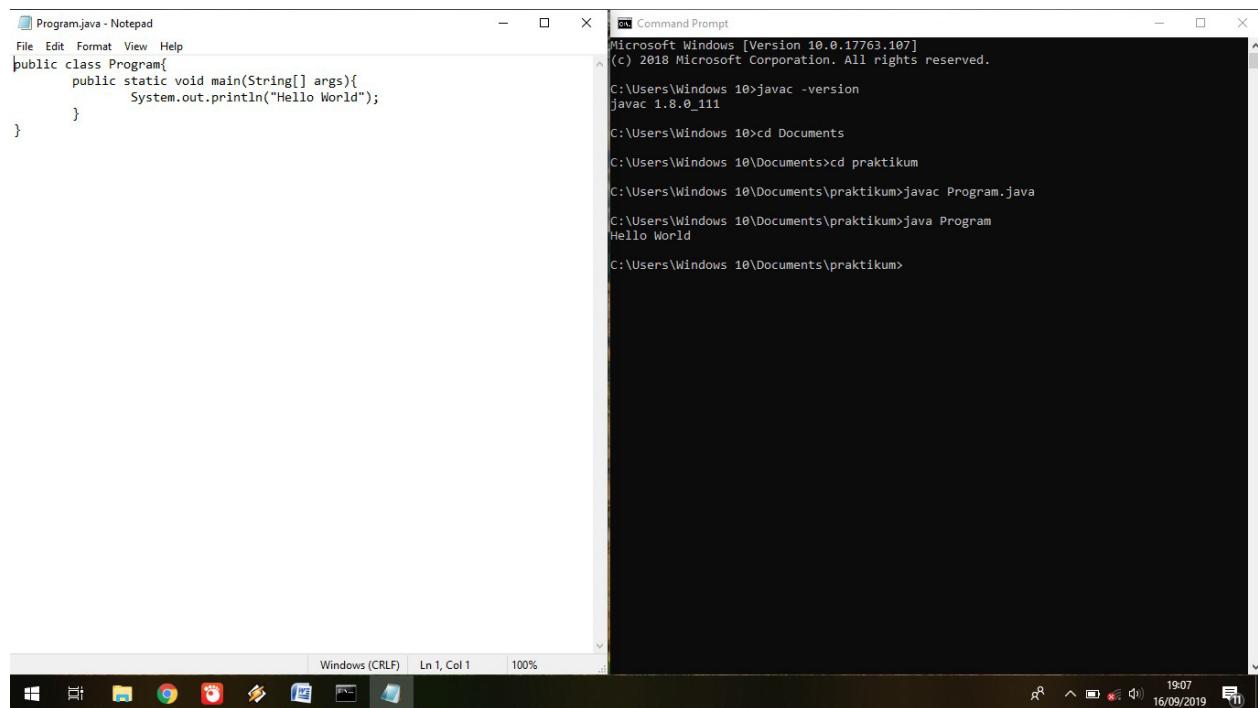
NIM : L200180045

BAB 1 PENGENALAN JAVA

Menampilkan jika PATH sudah terpasang :



Menampilkan hasil praktikum modul ke-1 :



The screenshot shows a Windows desktop environment. In the center, there are two windows: a Notepad window on the left and a Command Prompt window on the right. The Notepad window is titled "Program.java - Notepad" and contains the following Java code:

```
public class Program{
    public static void main(String[] args){
        System.out.println("Hello World");
    }
}
```

The Command Prompt window is titled "Command Prompt" and shows the following terminal session:

```
Microsoft Windows [Version 10.0.17763.107]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Windows 10>javac -version
javac 1.8.0_111

C:\Users\Windows 10>cd Documents
C:\Users\Windows 10\Documents>cd praktikum
C:\Users\Windows 10\Documents\praktikum>javac Program.java
C:\Users\Windows 10\Documents\praktikum>java Program
Hello World

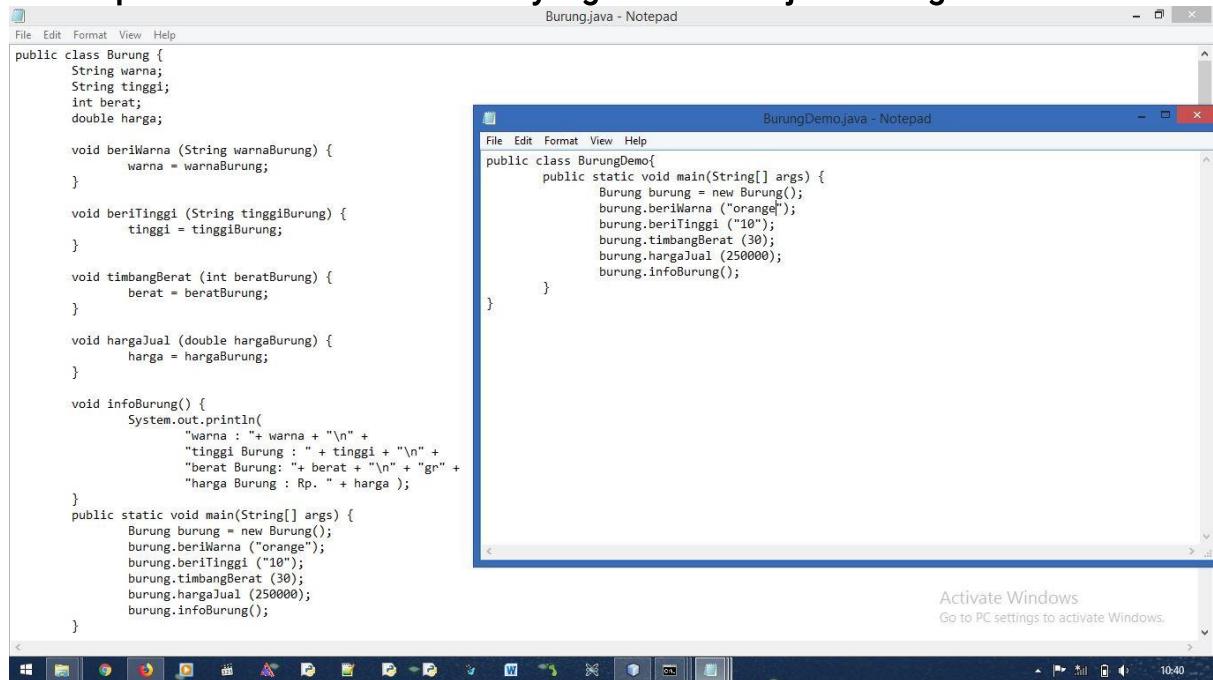
C:\Users\Windows 10\Documents\praktikum>
```

At the bottom of the screen, the taskbar is visible with several icons and the system tray showing the date and time.

BAB 2

CLASS DAN OBJECT

Menampilkan Screen Shot an hewan yang dimodif menjadi burung :



```
File Edit Format View Help
public class Burung {
    String warna;
    String tinggi;
    int berat;
    double harga;

    void beriWarna (String warnaBurung) {
        warna = warnaBurung;
    }

    void beriTinggi (String tinggiBurung) {
        tinggi = tinggiBurung;
    }

    void timbangBerat (int beratBurung) {
        berat = beratBurung;
    }

    void hargaJual (double hargaBurung) {
        harga = hargaBurung;
    }

    void infoBurung() {
        System.out.println(
            "warna : "+ warna + "\n" +
            "tinggi Burung : " + tinggi + "\n" +
            "berat Burung: "+ berat + "\n" + "gr" +
            "harga Burung : Rp. " + harga );
    }
}
public static void main(String[] args) {
    Burung burung = new Burung();
    burung.beriWarna ("orange");
    burung.beriTinggi ("10");
    burung.timbangBerat (30);
    burung.hargaJual (250000);
    burung.infoBurung();
}
```

```
File Edit Format View Help
public class BurungDemo{
    public static void main(String[] args) {
        Burung burung = new Burung();
        burung.beriWarna ("orange");
        burung.beriTinggi ("10");
        burung.timbangBerat (30);
        burung.hargaJual (250000);
        burung.infoBurung();
    }
}
```

Menampilkan Screen Shot an hasil cmd nya :

The screenshot shows a Windows Command Prompt window titled "Command Prompt". The window displays the following command-line session:

```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\ASUS_White>cd Downloads

C:\Users\ASUS_White\Downloads>dir
Volume in drive C has no label.
Volume Serial Number is B03B-D6E4

Directory of C:\Users\ASUS_White\Downloads

23/09/2019  10:31    <DIR>          .
23/09/2019  10:31    <DIR>          ..
23/09/2019  10:11           1.348 Bunga.class
23/09/2019  10:15           775 Bunga.java
23/09/2019  10:11           519 BungaDemo.class
23/09/2019  09:59           237 BungaDemo.java
23/09/2019  10:34           808 Burung.java
23/09/2019  10:31           525 BurungDemo.class
23/09/2019  10:27           251 BurungDemo.java
20/09/2019  16:00           946 car.class
20/09/2019  15:59           431 car.java
23/09/2019  10:20           469 cardemo.class
20/09/2019  15:59           309 cardemo.java
22/09/2019  11:21    <DIR>          Compressed
27/05/2019  08:21    <DIR>          Documents
11/09/2019  18:29    <DIR>          Music
14/09/2019  07:04      2.625.171.456 OpenMandrivaLx.4.0-plasma.x86_64.iso
20/09/2019  16:22           419 Program.class
13/09/2019  20:29           108 Program.java
14/09/2019  05:48    <DIR>          Programs
23/09/2019  10:05           1.343 Roti.class
19/09/2019  06:10           713 Roti.java
06/01/2017  15:04           83.291 ServiceLogin.htm
21/09/2019  09:01    <DIR>          Video
02/12/2016  16:08      51.841.223 videotoplayback_4
                           18 File(s)  2.677.105.171 bytes
                           7 Dir(s)   8.377.171.968 bytes free

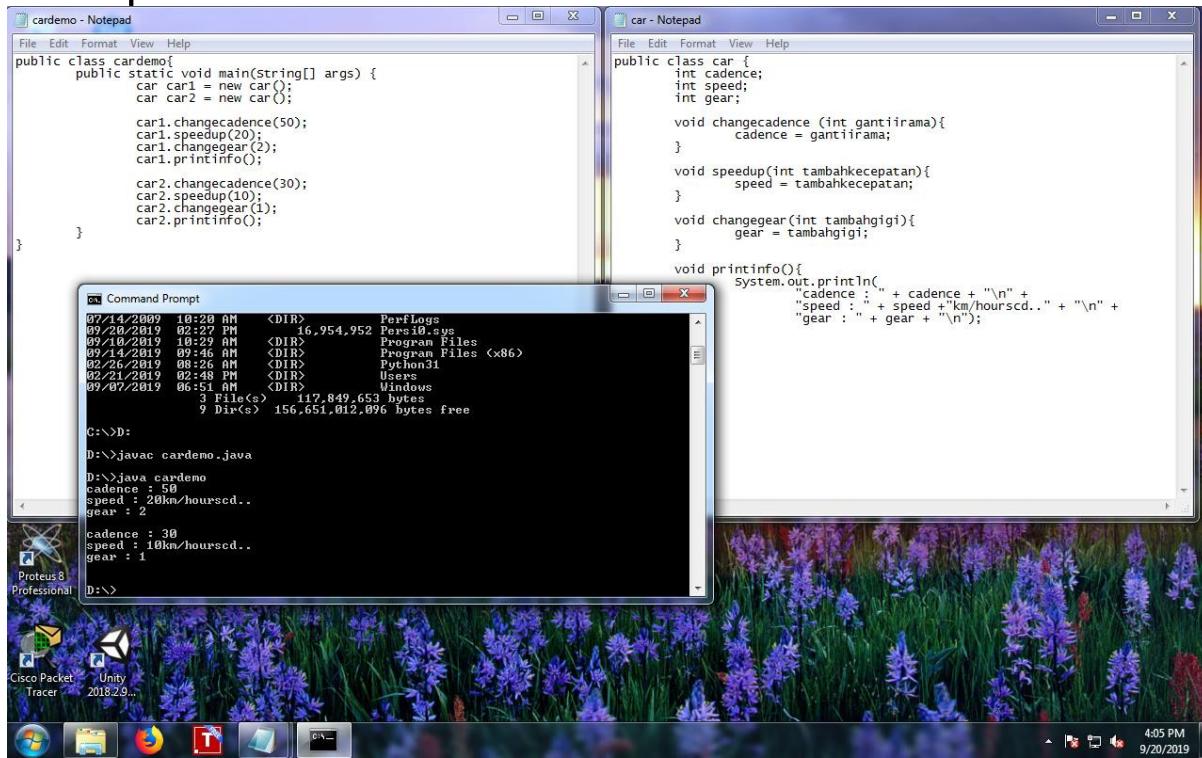
C:\Users\ASUS_White\Downloads>javac -version
javac 1.8.0_111

C:\Users\ASUS_White\Downloads>javac BurungDemo.java

C:\Users\ASUS_White\Downloads>java BurungDemo
warna : orange
tinggi Burung : 10
berat Burung: 30
grharga Burung : Rp. 250000.0

C:\Users\ASUS_White\Downloads>
```

Menampilkan Screen Shot dari Car :



BAB 3

CLASS MEMBER : VARIABEL DAN METHOD

3.1. Variabel

3.1.1 Local Variabel

Program 1. Penerapan variabel lokal

The screenshot shows the NetBeans IDE interface with the following details:

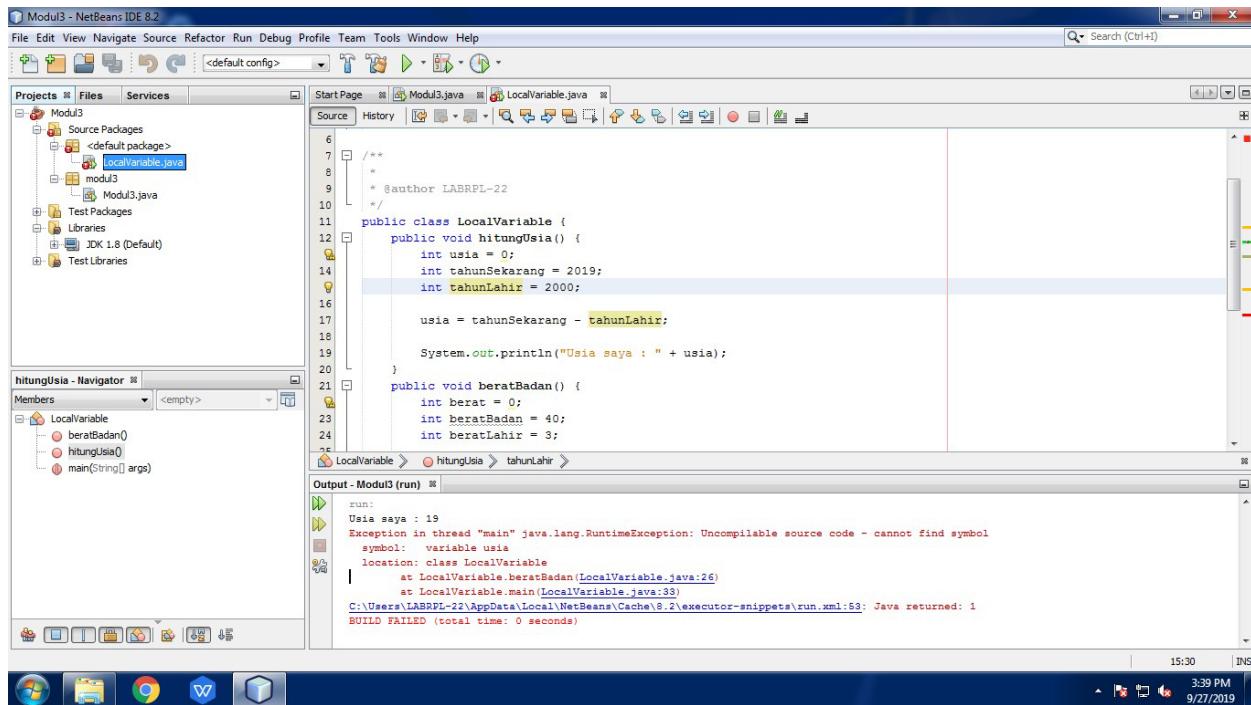
- Projects:** Modul3 -> Source Packages -> <default package> -> LocalVariable.java
- Code Editor:** Displays the LocalVariable.java file content:

```
6
7  /*
8  *
9  * @author LABRPL-22
10 */
11 public class LocalVariable {
12     public void hitungUsia() {
13         int usia = 0;
14         int tahunSekarang = 2019;
15         int tahunLahir = 1993;
16
17         usia = tahunSekarang - tahunLahir;
18
19         System.out.println("Usia saya : " + usia);
20     }
21     public static void main(String[] args) {
22         LocalVariable usia = new LocalVariable();
23         usia.hitungUsia();
24     }
25 }
```
- Output:** Shows the run output:

```
RUN:
Usia saya : 26
BUILD SUCCESSFUL (total time: 0 seconds)
```

Latihan 1

Karena usia berada dalam method yang berbeda sehingga hasilnya error.



```
6
7  /**
8  * @author LABRPL-22
9  */
10 public class LocalVariable {
11     public void hitungUsia() {
12         int usia = 0;
13         int tahunSekarang = 2019;
14         int tahunLahir = 2000;
15
16         usia = tahunSekarang - tahunLahir;
17
18         System.out.println("Usia saya : " + usia);
19     }
20
21     public void beratBadan() {
22         int berat = 0;
23         int beratBadan = 40;
24         int beratLahir = 3;
25
26     }
27 }
```

hitungUsia - Navigator

Members

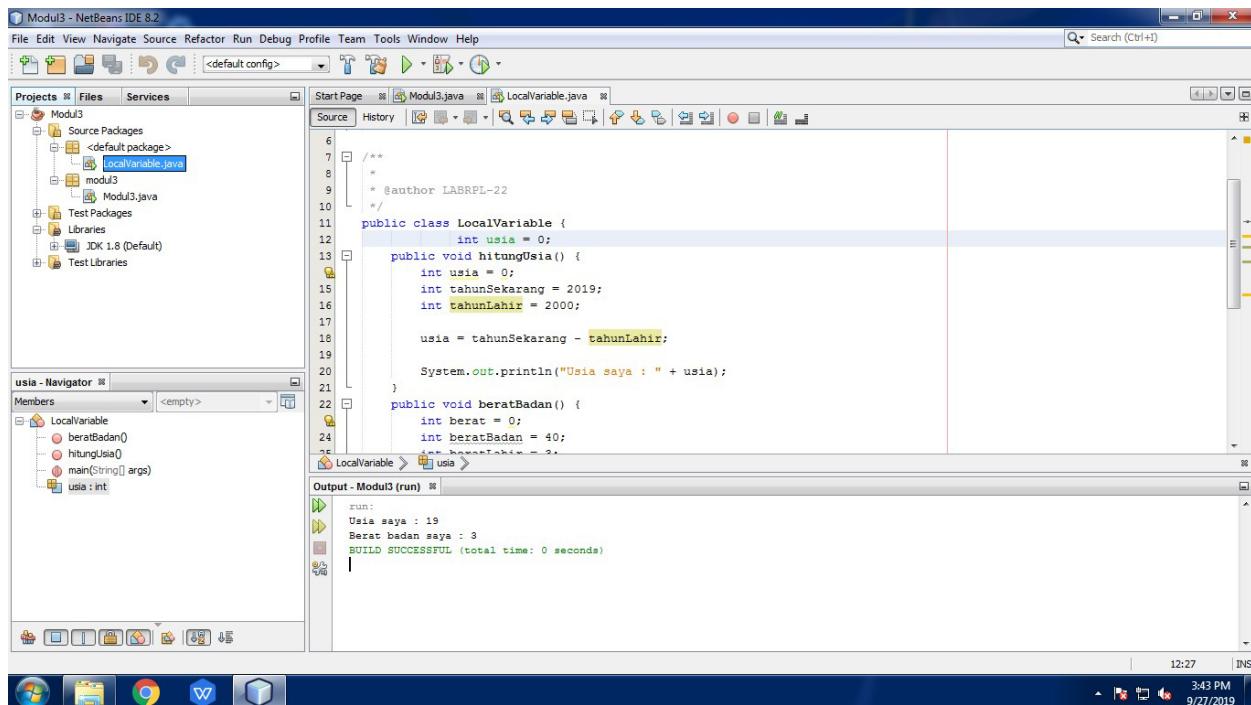
- LocalVariable
 - beratBadan()
 - hitungUsia()
 - main(String[] args)

Output - Modul3 (run)

```
run:
Usia saya : 19
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - cannot find symbol
symbol: variable usia
location: class LocalVariable
    at LocalVariable.beratBadan(LocalVariable.java:26)
    at LocalVariable.main(LocalVariable.java:33)
C:\Users\LABRPL-22\AppData\Local\NetBeans\Cache\8.2\executor-snippets\run.xml:53: Java returned: 1
BUILD FAILED (total time: 0 seconds)
```

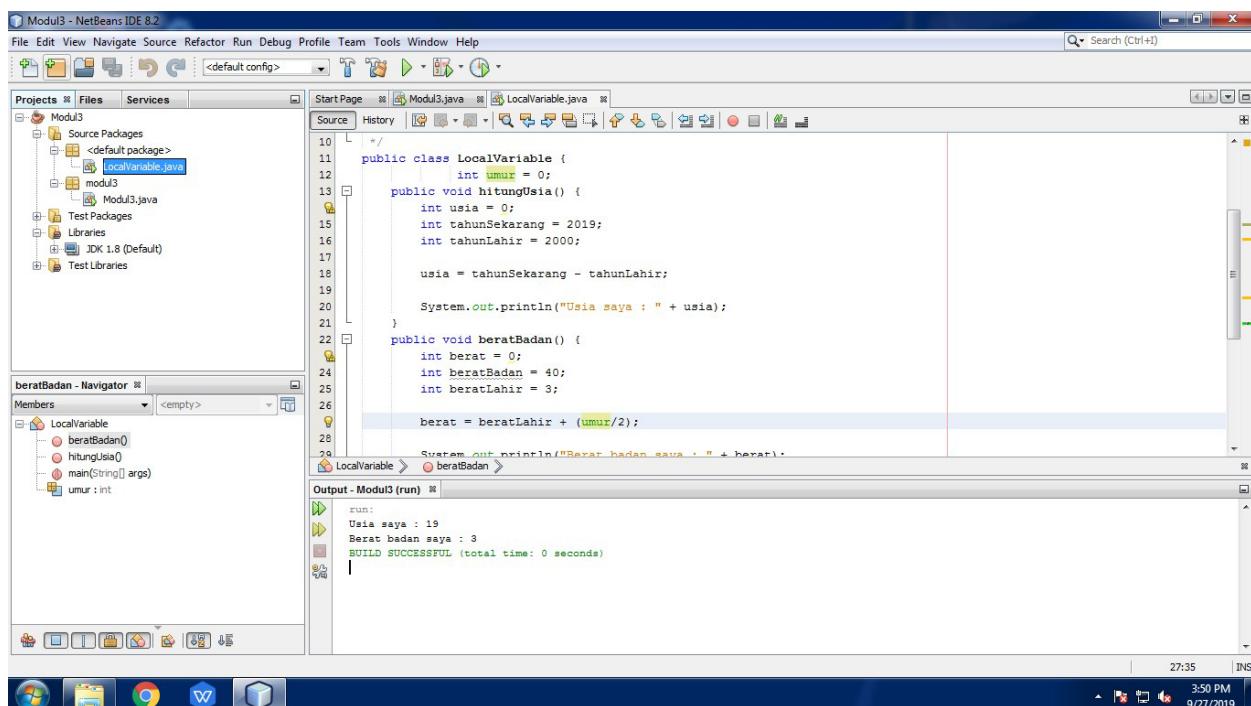
3.1.2 Instance Variable

Latihan 2



The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul3 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows the project structure with Source Packages, modul3, and Test Packages.
- Source Editor:** Displays the LocalVariable.java code. The code defines a class LocalVariable with methods hitungUsia() and beratBadan(). It uses instance variables usia, umur, and berat.
- Navigator:** Shows the members of the LocalVariable class: beratBadan(), hitungUsia(), main(String[] args), and usia.
- Output:** Shows the run output: Usia : 19, Berat badan : 3, BUILD SUCCESSFUL (total time: 0 seconds).
- Bottom:** Taskbar with icons for various applications like File Explorer, Task Manager, and a browser.



The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul3 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows the project structure with Source Packages, modul3, and Test Packages.
- Source Editor:** Displays the LocalVariable.java code. The code defines a class LocalVariable with methods hitungUsia() and beratBadan(). It uses instance variables usia, umur, and berat. In the beratBadan() method, there is a bug where the formula for calculating berat is incorrect: berat = beratLahir + (umur/2); instead of berat = beratLahir + (umur*2);.
- Output:** Shows the run output: Usia : 19, Berat badan : 3, BUILD SUCCESSFUL (total time: 0 seconds).
- Bottom:** Taskbar with icons for various applications like File Explorer, Task Manager, and a browser.

3.1.3 Static Variable

The screenshot shows the NetBeans IDE interface with the title "Modul3 - NetBeans IDE 8.2". The project tree on the left shows a single source package named "Modul3" containing files "LocalVariable.java", "StaticVariable.java", and "Modul3.java". The "StaticVariable.java" file is open in the editor, displaying Java code that defines a static char variable "akreditasi" and a static final String "jurusan". It also contains two methods: "firstMethod()" and "secondMethod()", both of which print the value of "jurusan". The "main" method initializes "akreditasi" to 'B' and creates an instance of "StaticVariable" named "a", then calls its methods. The output window at the bottom shows the program running and printing "Informatika" twice, followed by a "BUILD SUCCESSFUL" message.

```
/*
 * 
 */
public class StaticVariable{
    public static char akreditasi;
    public static final String jurusan = "Informatika";

    void firstMethod() {
        System.out.println(jurusan);
    }
    void secondMethod() {
        System.out.println("Akreditasi : " + akreditasi);
    }
    public static void main(String[] args) {
        StaticVariable.akreditasi = 'B';
        StaticVariable a = new StaticVariable();
        a.firstMethod();
        a.secondMethod();
    }
}
```

Output - Modul3 (run) :

```
run:
Informatika
Akreditasi : B
BUILD SUCCESSFUL (total time: 0 seconds)
```

3.2 Method

3.2.1 Method Non Void

The screenshot shows the NetBeans IDE interface with the title "Modul3 - NetBeans IDE 8.2". The project tree on the left shows a single source package named "Modul3" containing files "LocalVariable.java", "MethodParameter.java", "NonVoidMethod.java", and "VoidMethod.java". The "NonVoidMethod.java" file is open in the editor, displaying Java code that defines a class "NonVoidMethod" with three methods: "getNama()", "getNIM()", and "tampil()". The "main" method creates an instance of "NonVoidMethod" and calls its "tampil" method. The output window at the bottom shows the program running and printing "Veny Fitriana Isnaini" and "L20180045", followed by a "BUILD SUCCESSFUL" message.

```

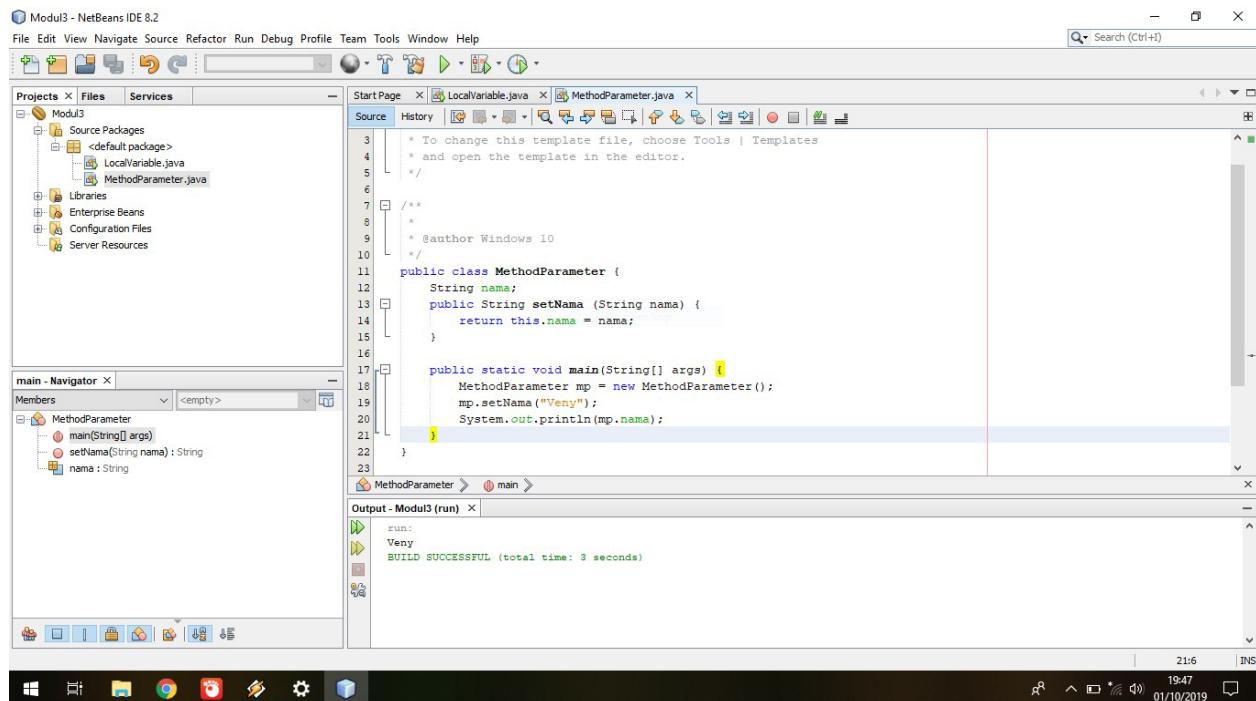
public class NonVoidMethod {
    String nama = "Veny Fitriana Isnaini";
    String nim = "L20180045";
    public String getNama() {
        return nama;
    }
    public String getNIM() {
        return nim;
    }
    public void tampil() {
        System.out.println(nama);
        System.out.println(nim);
    }
}

public static void main(String[] args) {
    NonVoidMethod aku = new NonVoidMethod();
    aku.tampil();
}
```

Output - Modul3 (run) :

```
run:
Veny Fitriana Isnaini
L20180045
BUILD SUCCESSFUL (total time: 1 second)
```

3.2.2 Parameter Method

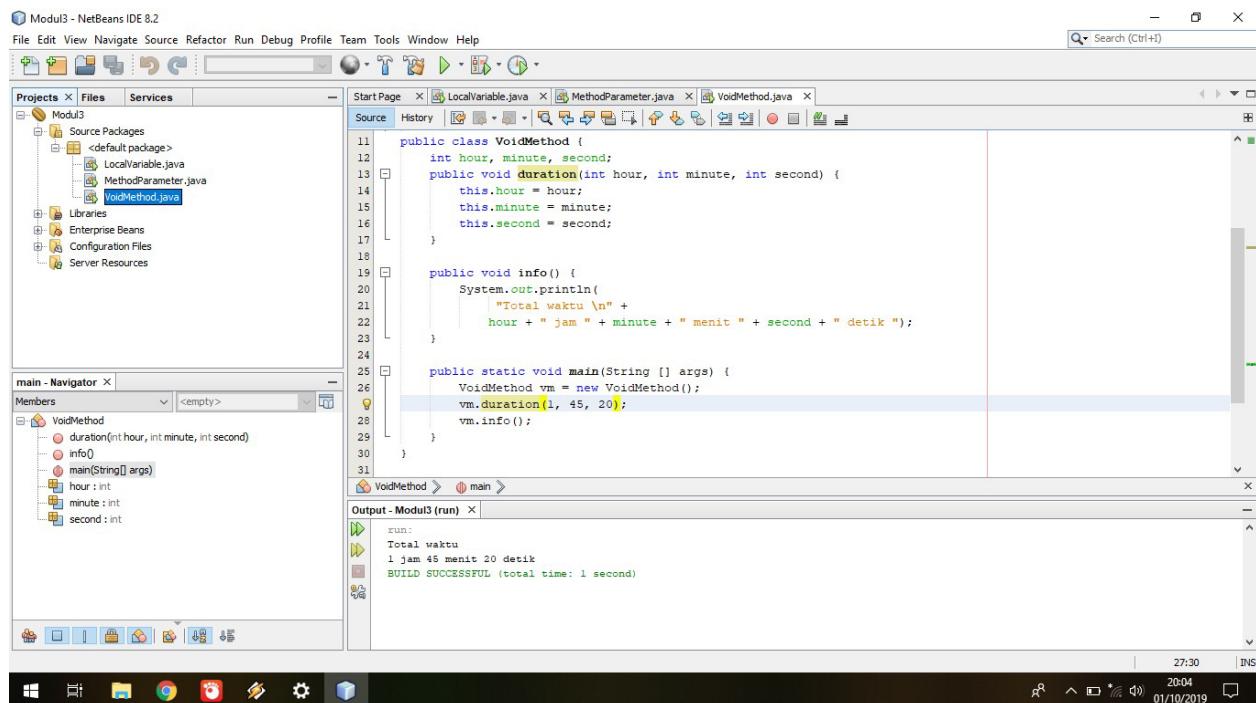


The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul3 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows a project named "Modul3" with a "Source Packages" node containing "LocalVariable.java" and "MethodParameter.java".
- Code Editor:** Displays the "MethodParameter.java" source code:

```
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author Windows 10
10 */
11 public class MethodParameter {
12     String nama;
13     public String setNama (String nama) {
14         return this.nama = nama;
15     }
16
17     public static void main(String[] args) {
18         MethodParameter mp = new MethodParameter();
19         mp.setNama ("Veny");
20         System.out.println(mp.nama);
21     }
22 }
```
- Navigator:** Shows the class structure of "MethodParameter".
- Output:** Shows the run output: "run: Veny BUILD SUCCESSFUL (total time: 3 seconds)".
- System Tray:** Shows standard Windows system tray icons.

3.2.3 Method Void

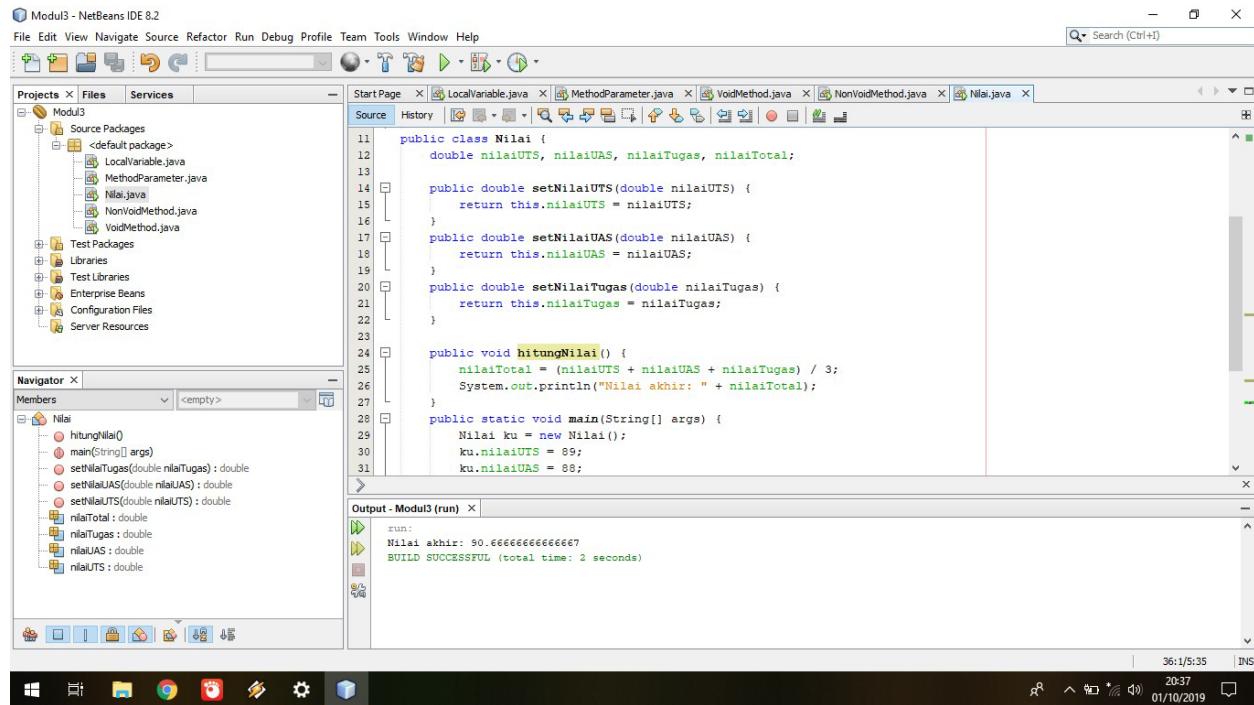


The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul3 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows a project named "Modul3" with a "Source Packages" node containing "LocalVariable.java", "MethodParameter.java", and "VoidMethod.java".
- Code Editor:** Displays the "VoidMethod.java" source code:

```
11 public class VoidMethod {
12     int hour, minute, second;
13     public void duration(int hour, int minute, int second) {
14         this.hour = hour;
15         this.minute = minute;
16         this.second = second;
17     }
18
19     public void info() {
20         System.out.println(
21             "Total waktunya \n" +
22             hour + " jam " + minute + " menit " + second + " detik ");
23     }
24
25     public static void main(String [] args) {
26         VoidMethod vm = new VoidMethod();
27         vm.duration(1, 45, 20);
28         vm.info();
29     }
30 }
```
- Navigator:** Shows the class structure of "VoidMethod".
- Output:** Shows the run output: "run: Total waktunya 1 jam 45 menit 20 detik BUILD SUCCESSFUL (total time: 1 second)".
- System Tray:** Shows standard Windows system tray icons.

3.3 Pekerjaan Rumah



The screenshot shows the NetBeans IDE interface with the following details:

- File Menu:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Search Bar:** Search (Ctrl+F)
- Projects Tab:** Modul3 (Source Packages, Test Packages, Libraries, Test Libraries, Enterprise Beans, Configuration Files, Server Resources)
- Navigator Tab:** Nilai (Members: hitungNilai(), main(String[] args), setNilaiTugas(double nilaiTugas), setNilaiUAS(double nilaiUAS), setNilaiUTS(double nilaiUTS), nilaiTotal, nilaiTugas, nilaiUAS, nilaiUTS)
- Source Editor:** Content of Nilai.java:

```
11 public class Nilai {
12     double nilaiUTS, nilaiUAS, nilaiTugas, nilaiTotal;
13
14     public double setNilaiUTS(double nilaiUTS) {
15         return this.nilaiUTS = nilaiUTS;
16     }
17     public double setNilaiUAS(double nilaiUAS) {
18         return this.nilaiUAS = nilaiUAS;
19     }
20     public double setNilaiTugas(double nilaiTugas) {
21         return this.nilaiTugas = nilaiTugas;
22     }
23
24     public void hitungNilai() {
25         nilaiTotal = (nilaiUTS + nilaiUAS + nilaiTugas) / 3;
26         System.out.println("Nilai akhir: " + nilaiTotal);
27     }
28
29     public static void main(String[] args) {
30         Nilai ku = new Nilai();
31         ku.nilaiUTS = 89;
32         ku.nilaiUAS = 88;
33     }
}
```
- Output - Modul3 (run) Tab:** Content:

```
run:
Nilai akhir: 90.66666666666667
BUILD SUCCESSFUL (total time: 2 seconds)
```
- System Tray:** Windows logo, Task View, File Explorer, Google Chrome, Taskbar settings, Taskbar options, Date/Time (36:15:35), Network status (20:37), Date (01/10/2019)

BAB 4

ACCESS MODIFIER

4.1. PRIVATE MODIFIER

4.1.1. Latihan

The screenshot shows the NetBeans IDE interface with the following details:

- Projects:** modul4
- Files:** PrivateModifier.java, PrivateModifierDemo.java
- Source:** The code for `PrivateModifierDemo.java` is displayed in the Source tab:

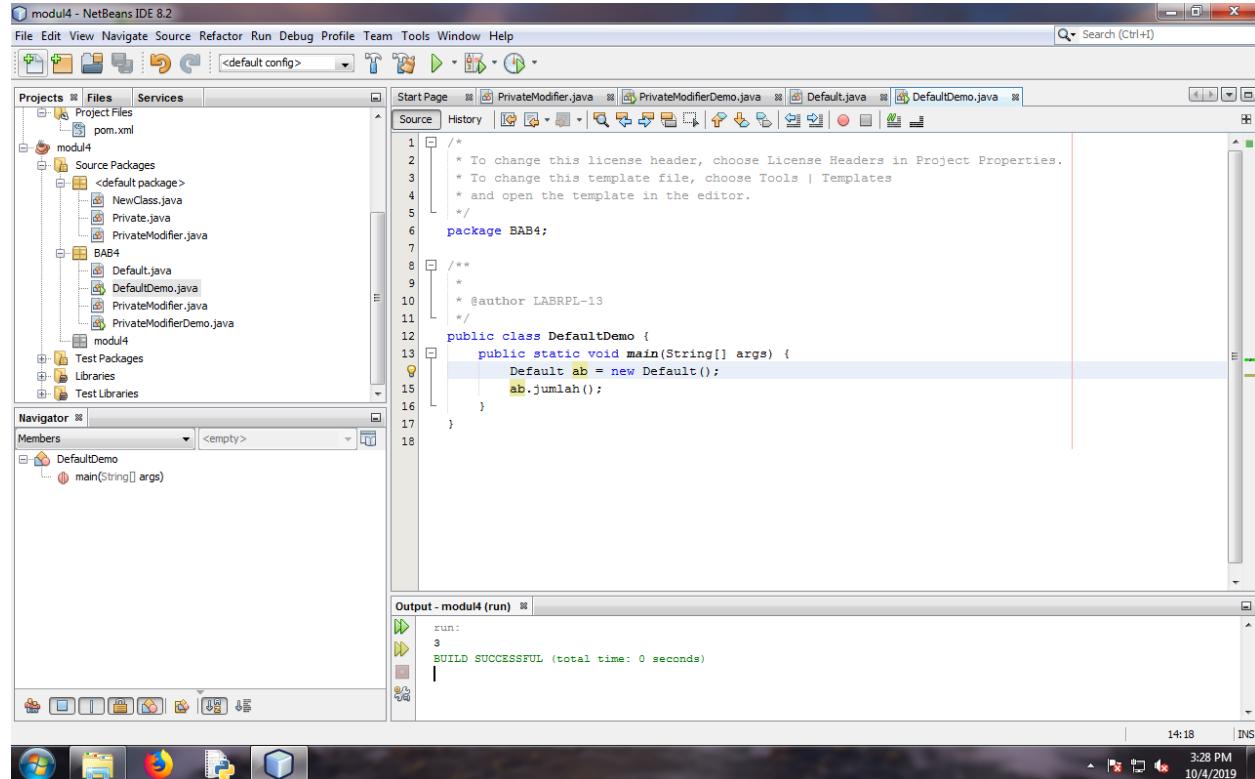
```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6 package BAB4;
7
8 /**
9 * @author LABRPL-13
10 */
11 public class PrivateModifierDemo {
12     public static void main(String[] args) {
13         PrivateModifier ab = new PrivateModifier();
14         ab.println();
15     }
16 }
17
18
```
- Output:** The Output window shows the run results:

```
run:
private modifier
BUILD SUCCESSFUL (total time: 0 seconds)
```

4.2. DEFAULT MODIFIER

4.2.1. Latihan

Latihan 1



The screenshot shows the NetBeans IDE interface with the following details:

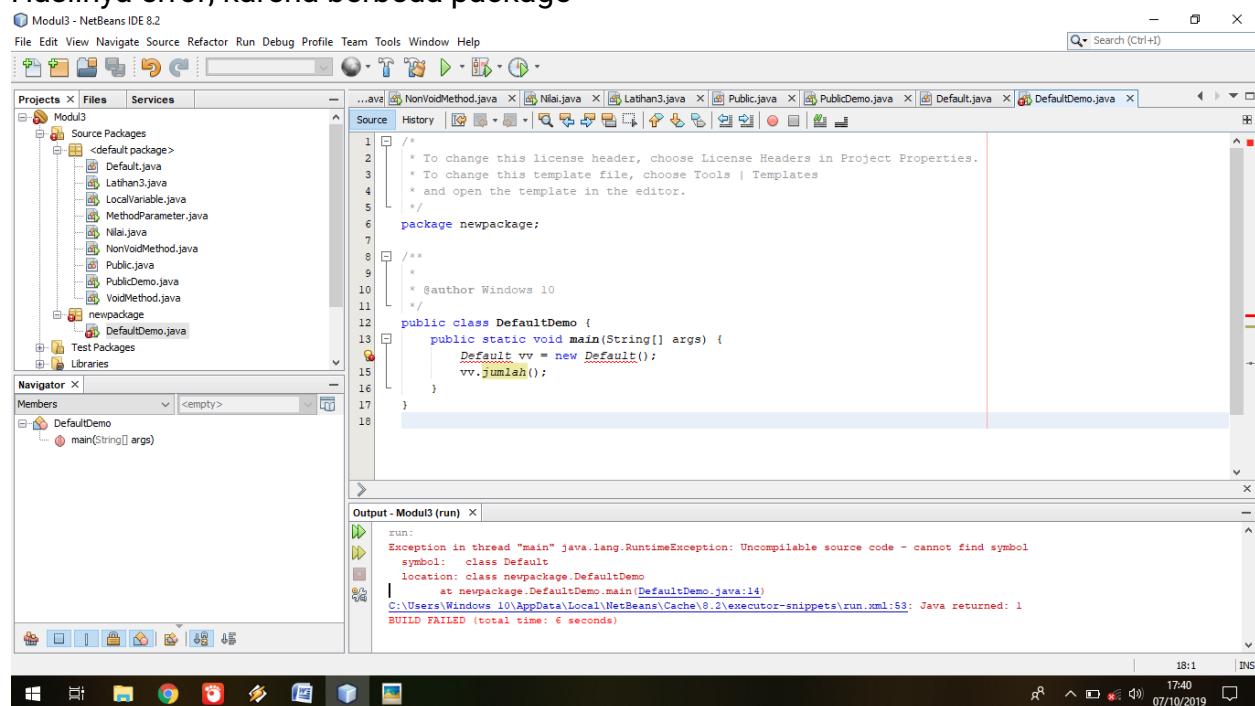
- Project:** modul4 - NetBeans IDE 8.2
- Source Packages:** modul4 contains `<default config>`, `NewClass.java`, `Private.java`, `PrivateModifier.java`, and BAB4 which contains `Default.java`, `DefaultDemo.java`, `PrivateModifier.java`, and `PrivateModifierDemo.java`.
- Code Editor:** The `DefaultDemo.java` file is open, showing the following code:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package BAB4;
7
8  /**
9  *
10 * @author LABRPL-13
11 */
12 public class DefaultDemo {
13     public static void main(String[] args) {
14         Default ab = new Default();
15         ab.jumlah();
16     }
17 }
```
- Output Window:** The output window shows the build results:

```
run:
3
BUILD SUCCESSFUL (total time: 0 seconds)
```

Latihan 2

Hasilnya error, karena berbeda package



The screenshot shows the NetBeans IDE interface with the following details:

- Project:** Modul3 - NetBeans IDE 8.2
- Source Packages:** Modul3 contains `<default package>`, `Default.java`, `Lathan3.java`, `LocalVariable.java`, `MethodParameter.java`, `Nilai.java`, `NonVoidMethod.java`, `Public.java`, `PublicDemo.java`, and `VoidMethod.java`. It also contains a `newpackage` folder which contains `DefaultDemo.java`.
- Code Editor:** The `DefaultDemo.java` file in the `newpackage` folder is open, showing the following code:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package newpackage;
7
8  /**
9  *
10 * @author Windows 10
11 */
12 public class DefaultDemo {
13     public static void main(String[] args) {
14         Default vv = new Default();
15         vv.jumlah();
16     }
17 }
```
- Output Window:** The output window shows the build results and an error:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - cannot find symbol
symbol:   class Default
location: class newpackage.DefaultDemo
        at newpackage.DefaultDemo.main(DefaultDemo.java:14)
C:\Users\Windows 10\AppData\Local\NetBeans\Cache\8.2\executor-snippets\run.xml:53: Java returned: 1
BUILD FAILED (total time: 6 seconds)
```

4.3. PROTECTED MODIFIER

4.3.1. Latihan

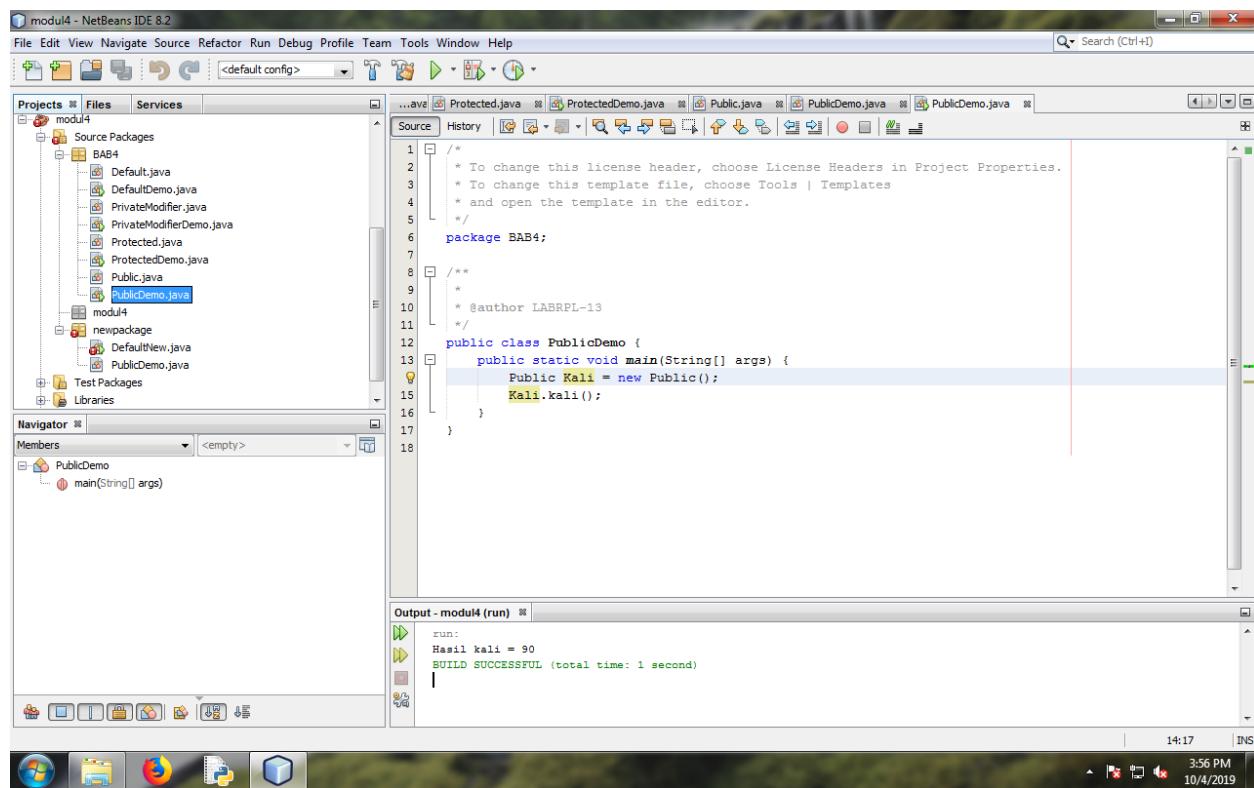
The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** modul4 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help
- Search Bar:** Search (Ctrl+F)
- Toolbar:** Standard NetBeans icons for file operations.
- Projects Panel:** Shows the project structure with modules, dependencies, and source packages. The 'modul4' project contains several Java files under 'Source Packages'.
- Editor Panel:** Displays the code for the 'ProtectedDemo.java' file. The code includes a package declaration for 'BAB4', a class 'ProtectedDemo' with a main method, and annotations for license headers and template files.
- Output Panel:** Shows the terminal output of the run command, displaying the name 'Very Fitriana Isnaini', a message 'this is a message', and a successful build message.
- Status Bar:** Shows the date and time as 10/4/2019 3:48 PM.

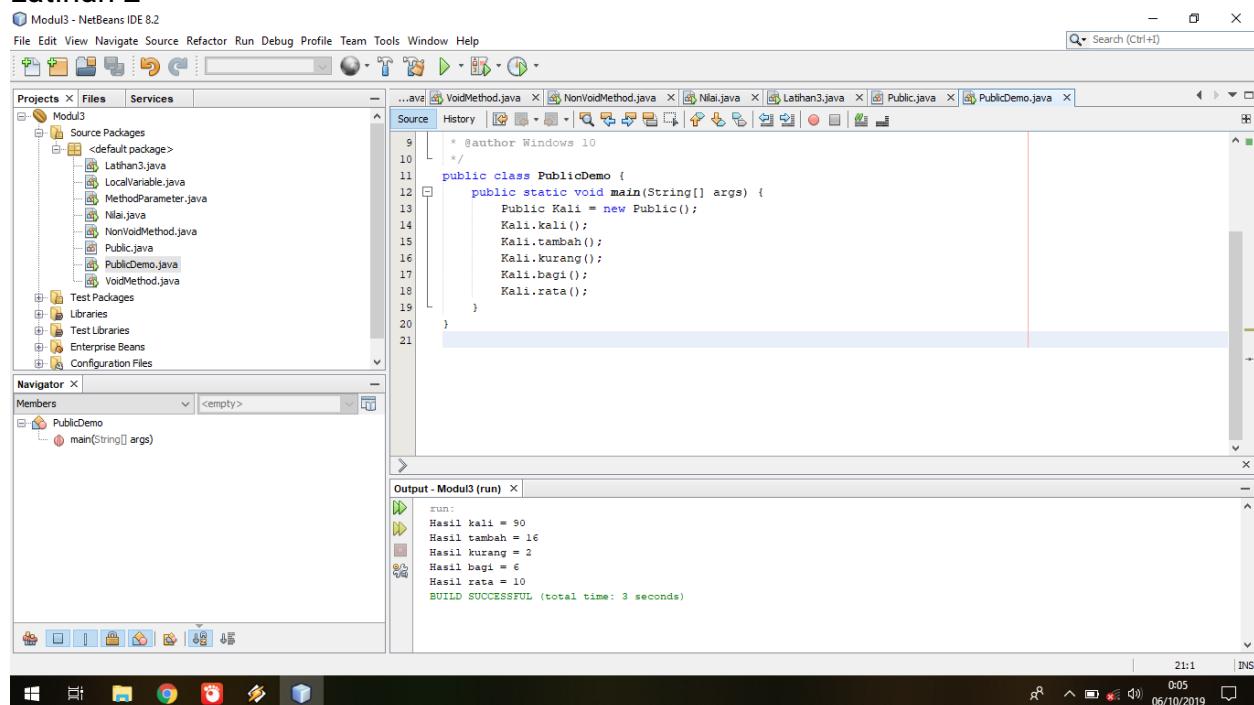
4.4. PUBLIC MODIFIER

4.4.1 Latihan

Latihan 1

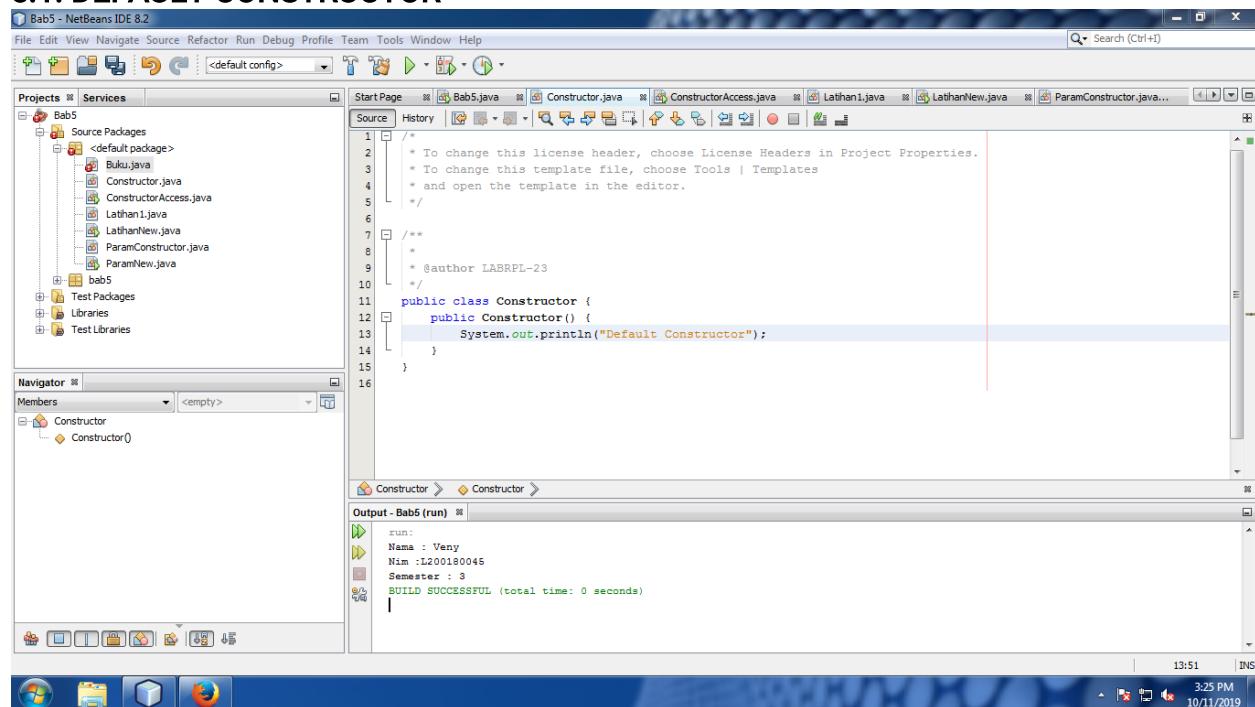


Latihan 2



BAB 5 CONSTRUCTOR

5.1. DEFAULT CONSTRUCTOR



The screenshot shows the NetBeans IDE interface with the following details:

- Projects Tab:** Shows a project named "Bab5" containing several source files: Buku.java, Constructor.java, ConstructorAccess.java, Lathan1.java, LathanNew.java, ParamConstructor.java, and ParamNew.java.
- Code Editor:** Displays the code for the "Constructor.java" file. The code defines a public constructor that prints "Default Constructor".

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 * @author LABRPL-23
 */
public class Constructor {
    public Constructor() {
        System.out.println("Default Constructor");
    }
}
```
- Output Tab:** Shows the run output for the "Constructor" class, displaying the message "Default Constructor".

```
run:
Default Constructor
```
- Bottom Status Bar:** Shows the date and time as "10/11/2019 3:25 PM".

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Source Packages <default package>

- Buku.java
- Constructor.java
- ConstructorAccess.java
- Lathan1.java
- LathanNew.java
- ParamConstructor.java
- ParamNew.java

Test Packages

Libraries

Test Libraries

Start Page Bab5.java Constructor.java ConstructorAccess.java Lathan1.java LathanNew.java ParamConstructor.java...

Source History

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author LABRPL-23
10 */
11 public class ConstructorAccess {
12 public static void main(String[] args) {
13 Constructor aa = new Constructor();
14 }
15 }
16

Navigator Members

ConstructorAccess main(String[] args)

ConstructorAccess > main > aa >

Output - Bab5 (run) run:
Nama : Veny
Nim :L200180045
Semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)

13:44 3:26 PM 10/11/2019

5.1.1. Latihan 1

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Source Packages <default package>

- Buku.java
- Constructor.java
- ConstructorAccess.java
- Lathan1.java
- LathanNew.java
- ParamConstructor.java
- ParamNew.java

Test Packages

Libraries

Test Libraries

Start Page Bab5.java Constructor.java ConstructorAccess.java Lathan1.java LathanNew.java ParamConstructor.java...

Source History

7 /**
8 *
9 * @author LABRPL-23
10 */
11 public class Lathan1 {
12 String Nama = "Veny Fitriana Isnaini";
13 String Nim = "L200180045";
14 String Alamat = "Sukoharjo";
15
16 public Lathan1() {
17 System.out.println("Nama :" + Nama);
18 System.out.println("Nim :" + Nim);
19 System.out.println("Alamat :" + Alamat);
20 }
21 }
22

Navigator Members

Lathan1 Lathan1()

Lathan1 > Lathan1 >

Output - Bab5 (run) run:
Nama : Veny
Nim :L200180045
Semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)

19:49 3:26 PM 10/11/2019

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Bab5

Source Packages <default package>

- Buku.java
- Constructor.java
- ConstructorAccess.java
- Lathani.java
- LathianNew.java
- ParamConstructor.java
- ParamNew.java

Test Packages bab5

Libraries

Test Libraries

Navigator Members

LathianNew main(String[] args)

Start Page Bab5.java Constructor.java ConstructorAccess.java Lathani.java LathianNew.java ParamConstructor.java

```

1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7  /**
8  *
9  * @author LABRPL-23
10 */
11 public class LathianNew {
12     public static void main(String[] args) {
13         Lathani hh = new Lathani();
14     }
15 }

```

LathianNew main

Output - Bab5 (run)

```

run:
Nama : Veny
Nim :1200180045
Semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)

```

13:39 3:26 PM 10/11/2019

5.2. PARAMETERIZED CONSTRUCTOR

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Bab5

Source Packages <default package>

- Buku.java
- Constructor.java
- ConstructorAccess.java
- Lathani.java
- LathianNew.java
- ParamConstructor.java
- ParamNew.java

Test Packages bab5

Libraries

Test Libraries

Navigator Members

ParamConstructor

- ParamConstructor(String nama, int semester, String nim)
- info()

- nama : String
- nim : String
- semester : int

Start Page Bab5.java Constructor.java ConstructorAccess.java Lathani.java LathianNew.java ParamConstructor.java ParamNew.java

```

5  /*
6  *
7  /**
8  *
9  * @author LABRPL-23
10 */
11 public class ParamConstructor {
12     String nama, nim;
13     int semester;
14
15     public ParamConstructor(String nama, int semester, String nim) {
16         this.nama = nama;
17         this.semester = semester;
18         this.nim = nim;
19     }
20
21     public void info() {
22         System.out.println("Nama : " + nama + "\nNim : " + nim + "\nSemester : " + semester);
23     }
24

```

ParamConstructor ParamConstructor

Output - Bab5 (run)

```

run:
Nama : Veny
Nim :1200180045
Semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)

```

15:17 3:27 PM 10/11/2019

The screenshot shows the NetBeans IDE 8.2 interface. The main window displays the code for `ParamNew.java` in the Source editor. The code defines a class `ParamNew` with a `main` method that creates an instance of `ParamConstructor` and calls its `info` method. The output window shows the execution results:

```
run:
Nama : Veny
Nim :L200180045
Semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)
```

5.2.1. Latihan 2

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Bab5

Source Packages <default package>

Buku.java

Constructor.java

ConstructorAccess.java

Lathan1.java

LathanNew.java

ParamConstructor.java

ParamNew.java

bab5

Test Packages

Libraries

Test Libraries

info3 - Navigator

Members

Buku

- Buku(String nama, String judulBuku)
- Buku(int tahun, int cetakanKe)
- Buku(double hargaJual)

info10

info20

info30

main(String[] args)

cetakanKe : int

hargaJual : double

judulBuku : String

namaPengarang : String

tahunTerbit : int

Source History

```
10  */
11  public class Buku {
12      String namaPengarang;
13      String judulBuku;
14      int tahunTerbit;
15      int cetakanKe;
16      double hargaJual;
17
18      public Buku(String nama, String judulBuku) {
19          this.namaPengarang = nama;
20          this.judulBuku = judulBuku;
21      }
22      public Buku(int tahun, int cetakanKe) {
23          this.tahunTerbit = tahun;
24          this.cetakanKe = cetakanKe;
25      }
26      public Buku(double hargaJual) {
27          this.hargaJual = hargaJual;
28      }
29      public void info1() {
```

Buku > info3 >

Output - Bab5 (run) *

```
run:
namaPengarang : Veny Fitriana Isnaini
judulBuku : Lembayung Senjani
tahunTerbit : 2000
cetakanKe : 1
hargaJual : 50000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

36:41 INS

4:02 PM 10/11/2019

Bab5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Bab5

Source Packages <default package>

Buku.java

Constructor.java

ConstructorAccess.java

Lathan1.java

LathanNew.java

ParamConstructor.java

ParamNew.java

bab5

Test Packages

Libraries

Test Libraries

info3 - Navigator

Members

Buku

- Buku(String nama, String judulBuku)
- Buku(int tahun, int cetakanKe)
- Buku(double hargaJual)

info10

info20

info30

main(String[] args)

cetakanKe : int

hargaJual : double

judulBuku : String

namaPengarang : String

tahunTerbit : int

Source History

```
28
29     }
30     public void info1() {
31         System.out.println("namaPengarang : " + namaPengarang + "\njudulBuku : " + judulBuku);
32     }
33     public void info2() {
34         System.out.println("tahunTerbit : " + tahunTerbit + "\ncetakanKe : " + cetakanKe);
35     }
36     public void info3() {
37         System.out.println("hargaJual : " + hargaJual);
38     }
39     public static void main(String[] args) {
40         Buku hh = new Buku("Veny Fitriana Isnaini", "Lembayung Senjani");
41         Buku hh1 = new Buku(2000, 1);
42         Buku hh2 = new Buku(50000);
43         hh.info1();
44         hh1.info2();
45         hh2.info3();
46     }
47 }
```

Buku > info3 >

Output - Bab5 (run) *

```
run:
namaPengarang : Veny Fitriana Isnaini
judulBuku : Lembayung Senjani
tahunTerbit : 2000
cetakanKe : 1
hargaJual : 50000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

36:41 INS

4:02 PM 10/11/2019

5.3. TUGAS

Modul5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Files Services

...java Public.java X PublicDemo.java X Default.java X DefaultDemo.java X Modul5.java X Tugas.java X Biodata.java X

Source History

9 * @author Windows 10

10 */

11 public class Tugas {

12 public Tugas(){

13 System.out.println("Veny Fitriana Isnaini");

14 }

15

16 String nama, alamat;

17 int umur;

18

19 public Tugas(String Nama, int Umur, String Alamat){

20 this.nama = Nama;

21 this.umur = Umur;

22 this.alamat = Alamat;

23 }

24 public void info(){

25 System.out.println("Nama : " + nama + "\nUmur : " + umur + "\nAlamat : " + alamat);

26 }

27 }

Navigator X

Members <empty>

Tugas

Tugas()

Tugas(String Nama, int Umur, String Alamat)

info()

alamat : String

nama : String

umur : int

Output - Modul5 (run) X

run:

Veny Fitriana Isnaini

Nama : Veny

Umur : 19

Alamat : Sukoharjo

BUILD SUCCESSFUL (total time: 0 seconds)

28:1 16:10 17/10/2019

Modul5 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Files Services

...java Public.java X PublicDemo.java X Default.java X DefaultDemo.java X Modul5.java X Tugas.java X Biodata.java X

Source History

1 /*

2 * To change this license header, choose License Headers in Project Properties.

3 * To change this template file, choose Tools | Templates

4 * and open the template in the editor.

5 */

6

7 /**

8 * @author Windows 10

9 */

10

11 public class Biodata {

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

13 Tugas tgs = new Tugas("Veny", 19, "Sukoharjo");

14 Tugas tgs1 = new Tugas();

15 tgs.info();

16 }

17 }

main - Navigator X

Members <empty>

Biodata

main(String[] args)

Output - Modul5 (run) X

run:

Veny Fitriana Isnaini

Nama : Veny

Umur : 19

Alamat : Sukoharjo

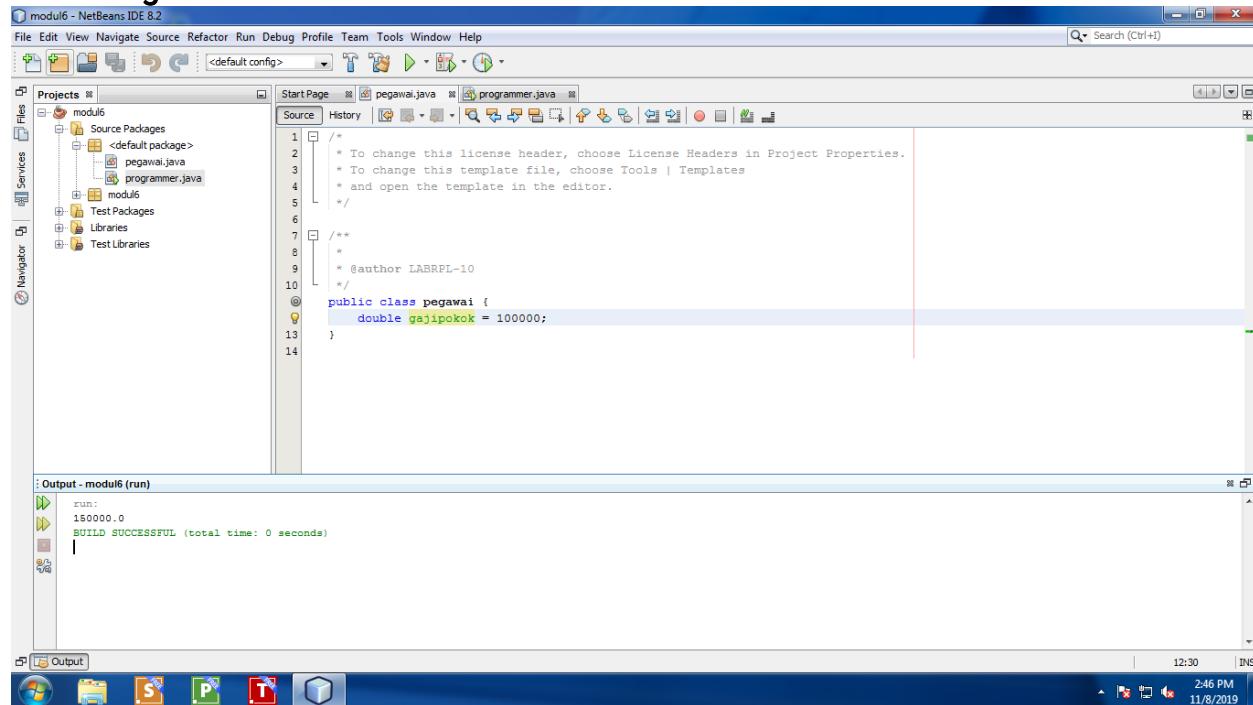
BUILD SUCCESSFUL (total time: 0 seconds)

13:45 16:11 17/10/2019

BAB 6

INHERITANCE

6.1.1. Single Inheritance



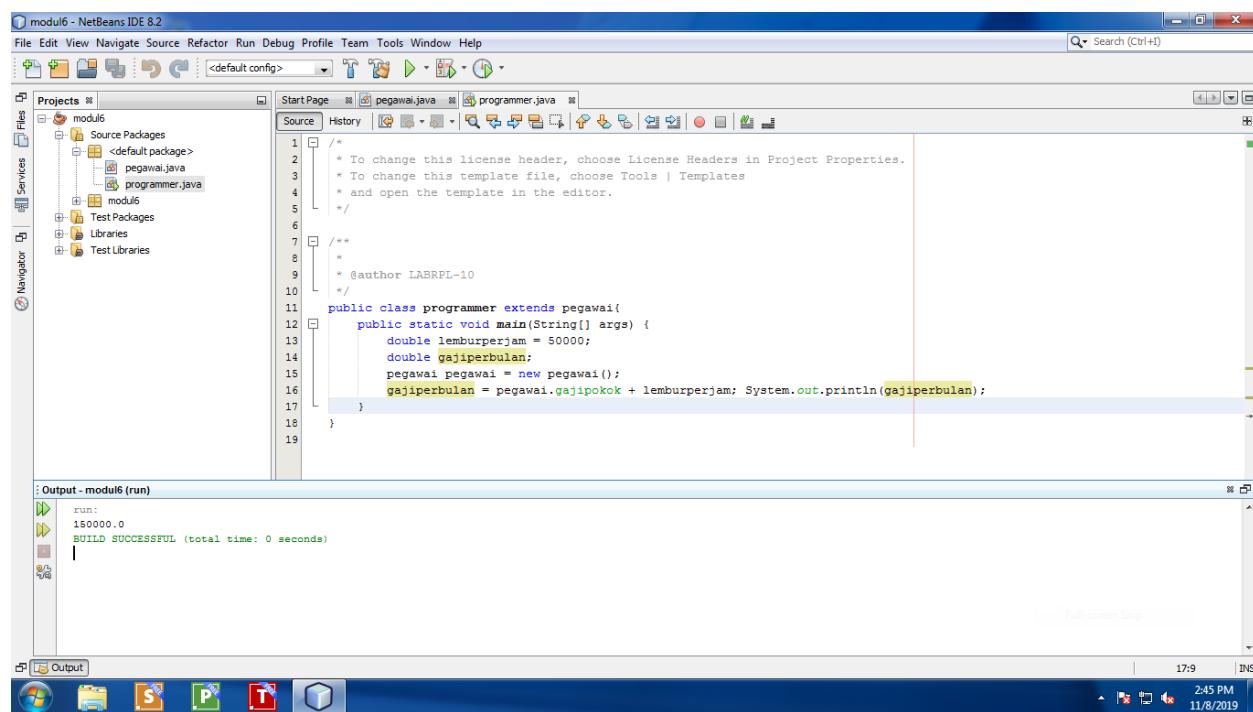
The screenshot shows the NetBeans IDE 8.2 interface. The top menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, and Help. The search bar at the top right says "Search (Ctrl+F)". The left sidebar has sections for Projects, Files, Services, and Navigator. The Projects section shows a project named "modul6" with a Source Packages folder containing "pegawai.java" and "programmer.java". The Files section shows "modul6" and "modul6" under Test Packages. The Navigator section is empty. The main editor area displays the "pegawai.java" source code:

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class pegawai {
12     double gajipokok = 100000;
13 }
14
```

The Output window below shows the run results:

```
:Output - modul6 (run)
run:
150000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

The bottom status bar shows the time as 12:30 and the date as 11/8/2019.



This screenshot shows the same NetBeans IDE 8.2 environment as the previous one, but with modifications to the "programmer.java" code. The "programmer.java" source code now includes an extends clause and a main method:

```
1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class programmer extends pegawai {
12     public static void main(String[] args) {
13         double lemburperjam = 50000;
14         double gajiperbulan;
15         pegawai pegawai = new pegawai();
16         gajiperbulan = pegawai.gajipokok + lemburperjam; System.out.println(gajiperbulan);
17     }
18 }
```

The Output window shows the same run results as before:

```
:Output - modul6 (run)
run:
150000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

The bottom status bar shows the time as 17:9 and the date as 11/8/2019.

6.1.2. Hierachial Inheritance

The screenshot shows the NetBeans IDE interface with the title bar "modul6 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for New Project, Open Project, Save, Undo, Redo, Cut, Copy, Paste, Find, Replace, Run, Stop, and Exit. The Projects tab shows a project named "modul6" with Source Packages containing "pegawai.java" and "programmer.java". The Files tab shows "modul6" and "modul6 Test Packages". The Navigator tab is visible. The Source editor tab shows the "pegawai.java" file with the following code:

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 * @author LABRPL-10
 */
public class pegawai {
    double gajipokok = 100000;
}
```

The Output tab shows the run results:

```
run:
150000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

The bottom status bar shows the date and time: 12:30 11/8/2019.

6.1.3. Multilevel Inheritance

The screenshot shows the NetBeans IDE interface with the title bar "modul6 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for New Project, Open Project, Save, Undo, Redo, Cut, Copy, Paste, Find, Replace, Run, Stop, and Exit. The Projects tab shows a project named "modul6" with Source Packages containing "a.java", "b.java", "c.java", "inheritancetest.java", "pegawai.java", "programmer.java", and "teknisi.java". The Files tab shows "modul6" and "modul6 Test Packages". The Navigator tab is visible. The Source editor tab shows the "a.java" file with the following code:

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 * @author LABRPL-10
 */
public class a {
    public void Messagea() {
        System.out.println("Info dari Class A");
    }
}
```

The Output tab shows the run results:

```
run:
Info dari Class A
Info dari Class B
Info dari Class B
Info dari Class C
Info dari Class C
Info dari Class C
Info dari Class C
BUILD SUCCESSFUL (total time: 0 seconds)
```

The bottom status bar shows the date and time: 2:46 PM 11/8/2019.

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- pegawai.java
- programmer.java
- teknisi.java

Test Packages modul6

Libraries

Test Libraries

Start Page pegawai.java programmer.java teknisi.java a.java b.java c.java inheritancetest.java

Source History

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class b {
12 public void Messageb() {
13 System.out.println("Info dari Class B");
14 }
15 }

Output - modul6 (run)

run:
Info dari Class A
Info dari Class B
Info dari Class B
Info dari Class C
Info dari Class C
Info dari Class C
BUILD SUCCESSFUL (total time: 0 seconds)

Output Finished building modul6 (run).

12:25:18 11/8/2019

3:05 PM 11/8/2019

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- pegawai.java
- programmer.java
- teknisi.java

Test Packages modul6

Libraries

Test Libraries

Start Page pegawai.java programmer.java teknisi.java a.java b.java c.java inheritancetest.java

Source History

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class a {
12 public void Messagea() {
13 System.out.println("Info dari Class C");
14 }
15 }

Output - modul6 (run)

run:
Info dari Class A
Info dari Class B
Info dari Class B
Info dari Class C
Info dari Class C
Info dari Class C
BUILD SUCCESSFUL (total time: 0 seconds)

Output Finished building modul6 (run).

12:25:18 11/8/2019

3:06 PM 11/8/2019

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- pegawai.java
- programmer.java
- teknisi.java

Test Packages

Libraries

Test Libraries

Start Page pegawai.java programmer.java teknisi.java a.java b.java c.java inheritancetest.java

```

4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class inheritancetest {
12     public static void main(String[] args) {
13         a A = new a();
14         b B = new b();
15         c C = new c();
16
17         A.Messagea();
18         B.Messageb();
19         B.Messageb();
20         C.Messagec();
21         C.Messagec();
22         C.Messagec();
23     }
24 }
```

Output - modul6 (run)

```

run:
Info dari Class A
Info dari Class B
Info dari Class B
Info dari Class C
Info dari Class C
Info dari Class C
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output Finished building modul6 (run). 22:19 3:06 PM 11/8/2019

6.2 Latihan

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- demo.java
- inheritancetest.java
- kendaraan.java
- mobil.java
- pegawai.java
- pesawat.java
- programmer.java
- teknisi.java

Test Packages

Libraries

Test Libraries

Start Page teknisi.java a.java b.java c.java inheritancetest.java kendaraan.java mobil.java pesawat.java demo.java

```

1 /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates.
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 @
12 public class kendaraan {
13     int jumlahkursi = 4;
14     int jumlahroda = 4;
15     int berat = 1000;
16     public void vv(){
17         System.out.println("jumlah roda kendaraan : " + jumlahroda +
18             "\njumlah kursi kendaraan : " + jumlahkursi + "\nberat kendaraan : " + berat);
19     }
20 }
```

Output - modul6 (run)

```

run:
jumlah roda kendaraan : 4
jumlah kursi kendaraan : 4
berat kendaraan : 1000
bahar bakar mobil : bensin
jumlahkursi mobil: 4
bahar bakar pesawat : avturberat pesawat : 60
BUILD SUCCESSFUL (total time: 1 second)
```

Output Finished building modul6 (run). 17:17 3:44 PM 11/8/2019

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages

- <default package>
 - a.java
 - b.java
 - c.java
 - demo.java
 - inheritancetest.java
 - kendaraan.java
 - mobil.java
 - pegawai.java
 - pesawat.java
 - programmer.java
 - teknisi.java
- modul6

Test Packages

Libraries

Test Libraries

Source

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class mobil extends kendaraan{
12     String bahanbakar = "bensin";
13     int jumlahkursi = 4;
14     public void ff(){
15         System.out.println("bahan bakar mobil : " + bahanbakar + "\njumlahkursi mobil: " + jumlahkursi)
16     }
17 }
```

Output - modul6 (run)

```
RUN:
jumlah roda kendaraan : 4
jumlah kursi kendaraan : 4
berat kendaraan : 1000
bahan bakar mobil : bensin
jumlahkursi mobil: 4
bahan bakar pesawat : avturberat pesawat : 60
BUILD SUCCESSFUL (total time: 1 second)
```

Output Finished building modul6 (run).

13:13 3:44 PM 11/8/2019

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages

- <default package>
 - a.java
 - b.java
 - c.java
 - demo.java
 - inheritancetest.java
 - kendaraan.java
 - mobil.java
 - pegawai.java
 - pesawat.java
 - programmer.java
 - teknisi.java
- modul6

Test Packages

Libraries

Test Libraries

Source

```
1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class pesawat {
12     String bahanbakar = "avtur";
13     int berat = 60;
14     public void ff(){
15         System.out.println("bahan bakar pesawat : " + bahanbakar + "berat pesawat : " + berat);
16     }
17 }
```

Output - modul6 (run)

```
RUN:
jumlah roda kendaraan : 4
jumlah kursi kendaraan : 4
berat kendaraan : 1000
bahan bakar mobil : bensin
jumlahkursi mobil: 4
bahan bakar pesawat : avturberat pesawat : 60
BUILD SUCCESSFUL (total time: 1 second)
```

Output Finished building modul6 (run).

14:19 3:45 PM 11/8/2019

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages

- <default package>
 - a.java
 - b.java
 - c.java
 - demo.java
 - inheritancetest.java
 - kendaraan.java
 - mobil.java
 - pegawai.java
 - pesawat.java
 - programmer.java
 - teknisi.java
- modul6

Test Packages

Libraries

Test Libraries

Source

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates.
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author LABRPL-10
10 */
11 public class demo {
12     public static void main(String[] args) {
13         kendaraan v = new kendaraan();
14         mobil a = new mobil();
15         pesawat b = new pesawat();
16
17         v.vv();
18         a.rr();
19         b.ff();
20     }
21 }
```

Output - modul6 (run)

```

run:
jumlah roda kendaraan : 4
jumlah kursi kendaraan : 4
berat kendaraan : 1000
bahar bakar mobil : bensin
jumlahkursi mobil : 4
bahar bakar pesawat : avturberat pesawat : 60
BUILD SUCCESSFUL (total time: 1 second)
|
```

Output Finished building modul6 (run). 19:16 3:45 PM 11/8/2019

6.3 TUGAS

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects modul6

Source Packages

- <default package>
 - bangundatar.java
 - persegi.java
 - persegipanjang.java
 - segitiga.java
 - segitigasamakaki.java
 - segitigasamasasi.java
- Test Packages
- Libraries
- Test Libraries
- TugasPbo

Source

```

1 /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates.
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author Windows 10
10 */
11
12 public class bangundatar {
13     double luas;
14     double keliling;
15     public hitungluas(){
16         System.out.println("ini method untuk menghitung luas");
17     }
18     public hitungkeliling(){
19         System.out.println("ini method untuk menghitung keliling");
20     }
21 }
```

Output - modul6 (run)

```

run:
luas persegi16.0
keliling persegi16.0
BUILD SUCCESSFUL (total time: 5 seconds)
|
```

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

Source Packages <default package>

- bangundatar.java
- persegi.java
- persegipanjang.java
- segitiga.java
- segitigasamakali.java
- segitigasamasisi.java

Test Packages Libraries Test Libraries TugasPbo

Navigator Members <empty>

Members

- persegi :: bangundatar
- hitungkelling() : bangundatar
- hitungluas() : bangundatar
- main(String[] args)
- s: int

Output - modul6 (run) run: luas persegil6.0 keliling persegil6.0 BUILD SUCCESSFUL (total time: 5 seconds)

14:13 | INS

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
public class persegi extends bangundatar {
    int s = 4;
    public hitungluas(){
        luas = s*s;
        System.out.println("luas persegi" + luas);
    }
    public hitungkeliling(){
        keliling = 4*s;
        System.out.println("keliling persegi" + keliling);
    }
    public static void main(String[] args){
        persegi vv = new persegi();
        vv.hitungluas();
        vv.hitungkeliling();
    }
}
```

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

Source Packages <default package>

- bangundatar.java
- persegi.java
- persegipanjang.java
- segitiga.java
- segitigasamakali.java
- segitigasamasisi.java

Test Packages Libraries Test Libraries TugasPbo

lebar - Navigator Members <empty>

Members

- persegipanjang :: bangundatar
- lebar : double
- panjang : int

Output - modul6 (run) run: luas persegil6.0 keliling persegil6.0 BUILD SUCCESSFUL (total time: 5 seconds)

13:18 | INS

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
public class persegiapanjang extends bangundatar {
    int panjang;
    double lebar;
}
```

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

Source Packages <default package>

- bangundatar.java
- persegi.java
- persegipanjang.java
- segitiga.java
- segitigasamakali.java
- segitigasamasasi.java

Test Packages Libraries Test Libraries TugasPbo

Navigator Members <empty>

segitiga :: bangundatar
 alas : double

segitiga > alas >

Output - modul6 (run) x

run:
luas persegi16.0
keliling persegi16.0
BUILD SUCCESSFUL (total time: 5 seconds)

12:17 | 21:31 | INS

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Windows 10
 */
public class segitiga extends bangundatar{
    double alas;
}
```

modul6 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

modul6

Source Packages <default package>

- bangundatar.java
- persegi.java
- persegipanjang.java
- segitiga.java
- segitigasamakali.java
- segitigasamasasi.java

Test Packages Libraries Test Libraries TugasPbo

Navigator Members <empty>

segitigasamakali :: segitiga
 sisimiring : double

segitigasamakali >

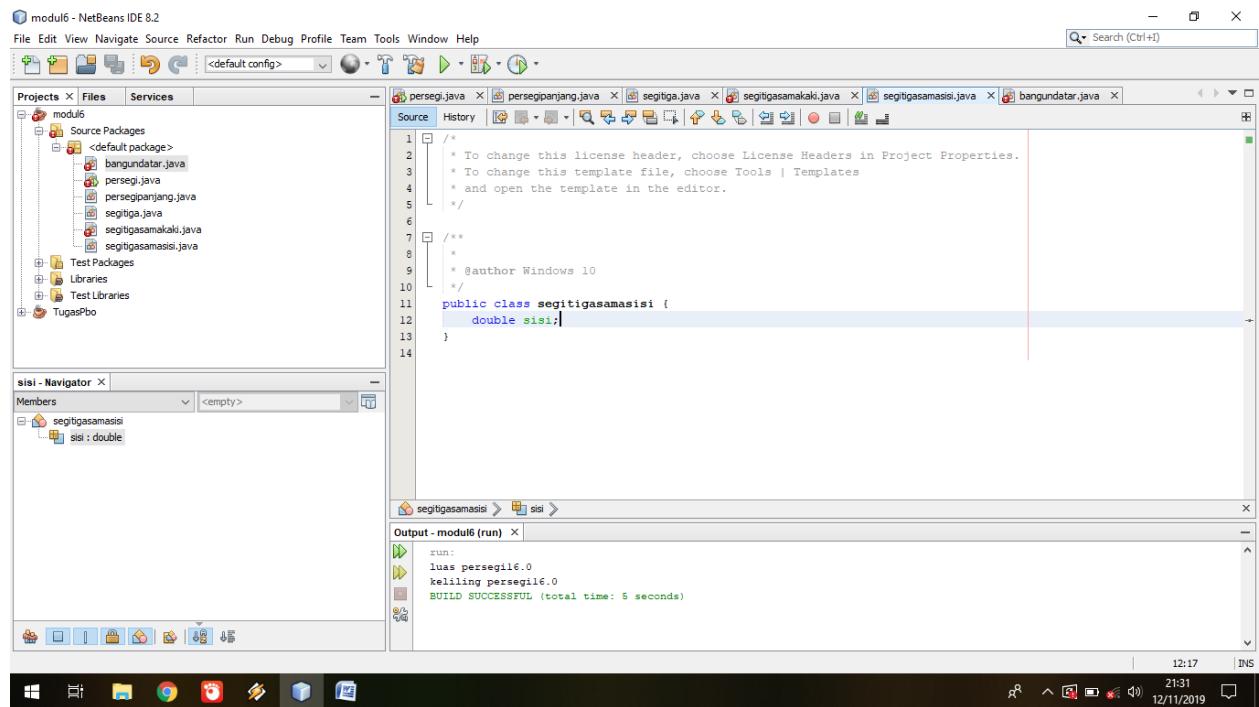
Output - modul6 (run) x

run:
luas persegi16.0
keliling persegi16.0
BUILD SUCCESSFUL (total time: 5 seconds)

13:2 | 21:31 | INS

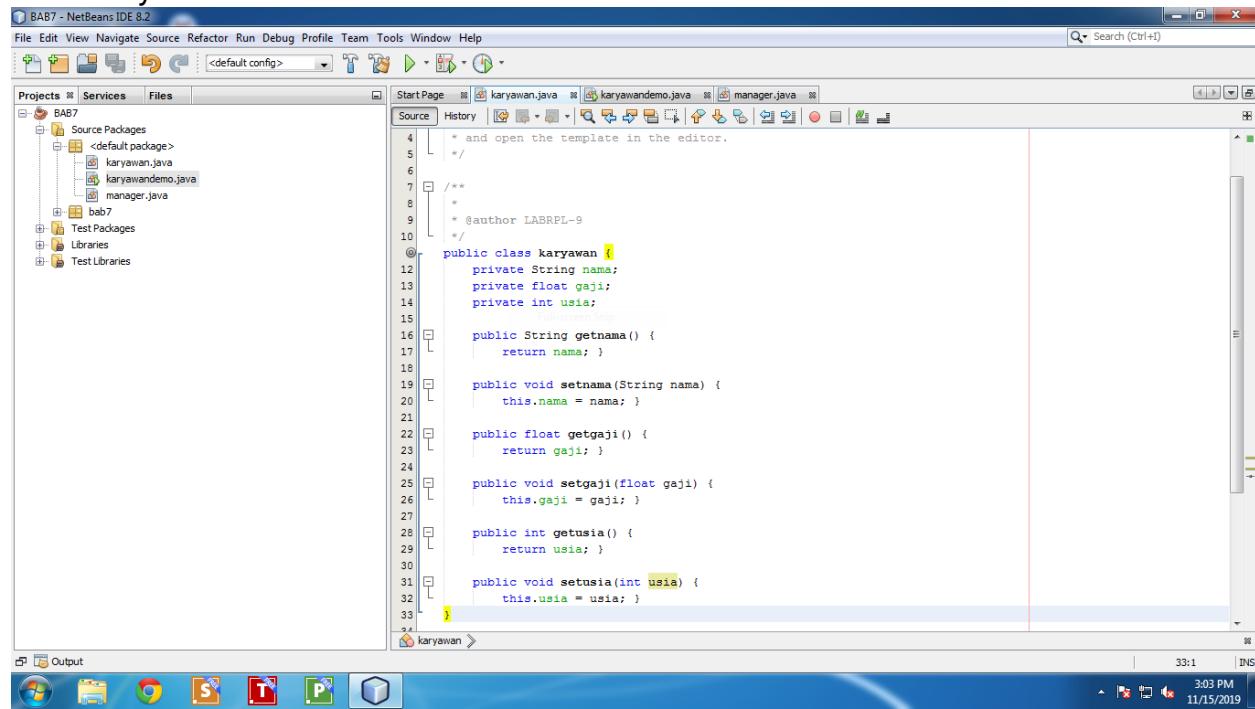
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Windows 10
 */
public class segitigasamakali extends segitiga{
    double sisimiring;
}
```



BAB 7 ENCAPSULATION

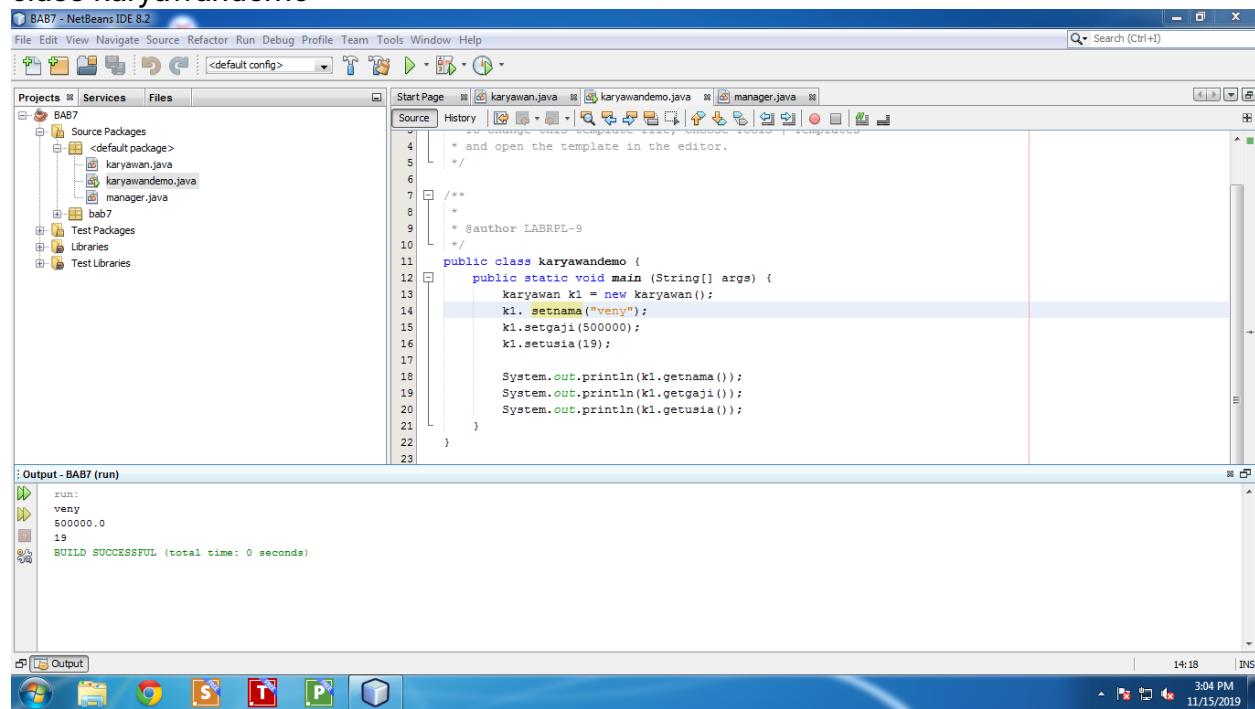
7.1. GAMBARAN UMUM class karyawan



The screenshot shows the NetBeans IDE interface with the title bar "BAB7 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The search bar says "Search (Ctrl+I)". The Projects tab shows a project named "BAB7" with a "Source Packages" node containing files "karyawan.java", "karyawandemo.java", and "manager.java". The Files tab is selected, showing the code for "karyawan.java". The code defines a class "karyawan" with private attributes "nama", "gaji", and "usia", and methods for getting and setting each. The code editor has syntax highlighting and line numbers. The bottom status bar shows "3:03 PM 11/15/2019".

```
4  * and open the template in the editor.
5  */
6
7 /**
8  *
9  * @author LABRPL-9
10 */
11 public class karyawan {
12     private String nama;
13     private float gaji;
14     private int usia;
15
16     public String getnama() {
17         return nama;
18     }
19
20     public void setnama(String nama) {
21         this.nama = nama;
22     }
23
24     public float getgaji() {
25         return gaji;
26     }
27
28     public void setgaji(float gaji) {
29         this.gaji = gaji;
30     }
31
32     public int getsusia() {
33         return usia;
34     }
35
36     public void setsusia(int usia) {
37         this.usia = usia;
38     }
39 }
```

class karyawandemo

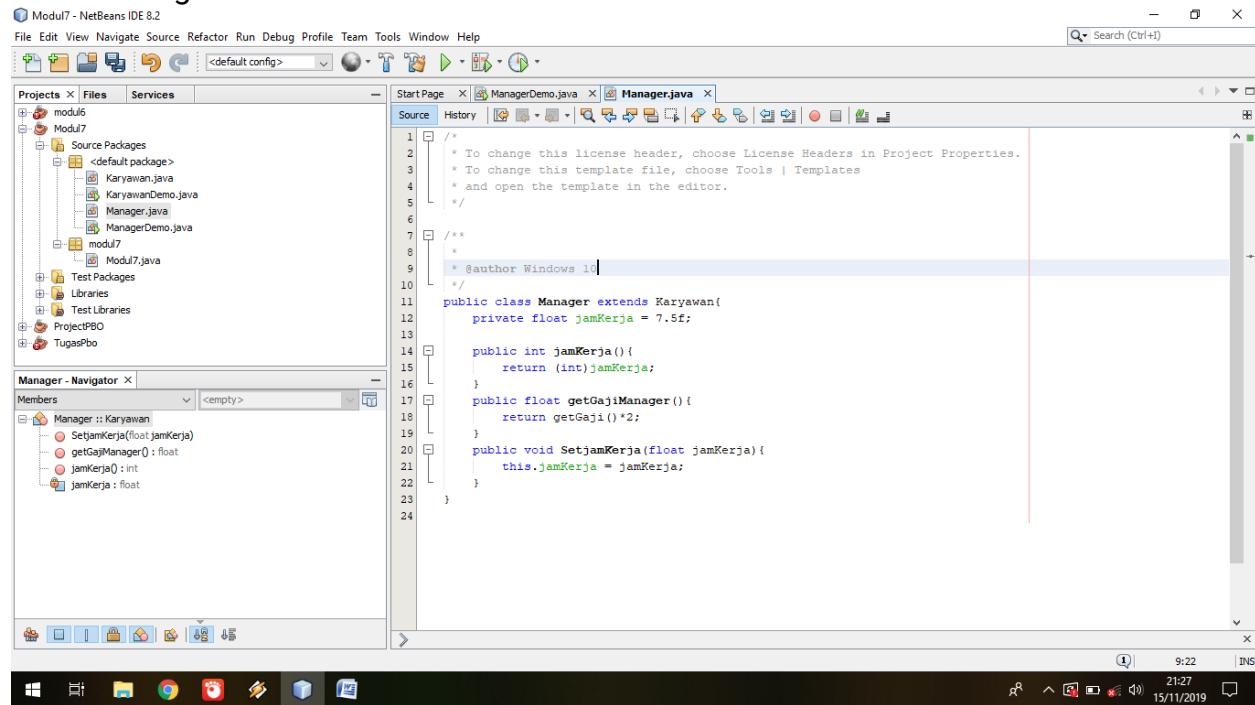


The screenshot shows the NetBeans IDE interface with the title bar "BAB7 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The search bar says "Search (Ctrl+I)". The Projects tab shows a project named "BAB7" with a "Source Packages" node containing files "karyawan.java", "karyawandemo.java", and "manager.java". The Files tab is selected, showing the code for "karyawandemo.java". The code defines a class "karyawandemo" with a static main method that creates a "karyawan" object, sets its name to "veny", gaji to 500000.0, and usia to 19, then prints out its name, gaji, and usia. The code editor has syntax highlighting and line numbers. The Output tab shows the run results: "run: veny 500000.0 19 BUILD SUCCESSFUL (total time: 0 seconds)". The bottom status bar shows "3:04 PM 11/15/2019".

```
4  * and open the template in the editor.
5  */
6
7 /**
8  *
9  * @author LABRPL-9
10 */
11 public class karyawandemo {
12     public static void main (String[] args) {
13         karyawan k1 = new karyawan();
14         k1.setnama("veny");
15         k1.setgaji(500000);
16         k1.setsusia(19);
17
18         System.out.println(k1.getnama());
19         System.out.println(k1.getgaji());
20         System.out.println(k1.getsusia());
21     }
22 }
```

7.2. LATIHAN

class Manager



The screenshot shows the NetBeans IDE interface with the following details:

- Project Explorer:** Shows two projects: "modul6" and "Modul7". "Modul7" contains packages "Source Packages" and "modul7", which include files like Karyawan.java, KaryawanDemo.java, Manager.java, ManagerDemo.java, and Modul7.java.
- Code Editor:** The active file is Manager.java. The code defines a class Manager that extends Karyawan. It includes methods for setting and getting working hours and salary.
- Navigator:** The Manager - Navigator panel shows the class hierarchy and member variables.
- Bottom Status Bar:** Displays system icons, the date (15/11/2019), time (9:22), and battery level.

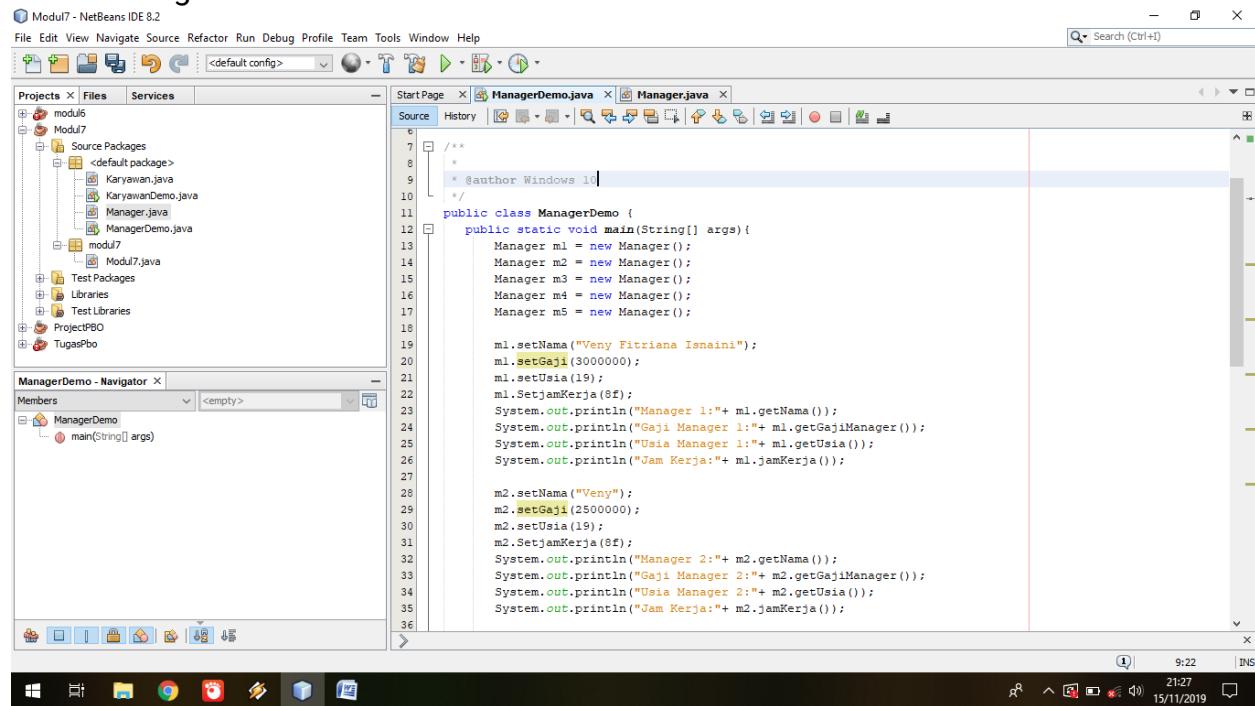
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/*
 * @author Windows 10
 */
public class Manager extends Karyawan{
    private float jamKerja = 7.5f;

    public int jamKerja(){
        return (int)jamKerja;
    }

    public float getGajiManager(){
        return getGaji()*2;
    }

    public void SetjamKerja(float jamKerja){
        this.jamKerja = jamKerja;
    }
}
```

class ManagerDemo



The screenshot shows the NetBeans IDE interface with the following details:

- Project Explorer:** Shows the same project structure as the previous screenshot.
- Code Editor:** The active file is ManagerDemo.java. It contains a main method that creates five Manager objects and prints their details.
- Navigator:** The ManagerDemo - Navigator panel shows the main method.
- Bottom Status Bar:** Displays system icons, the date (15/11/2019), time (9:22), and battery level.

```
/*
 * @author Windows 10
 */
public class ManagerDemo {
    public static void main(String[] args) {
        Manager m1 = new Manager();
        Manager m2 = new Manager();
        Manager m3 = new Manager();
        Manager m4 = new Manager();
        Manager m5 = new Manager();

        m1.setNama("Veny Fitriana Isnaini");
        m1.setGaji(300000);
        m1.setUsia(19);
        m1.SetjamKerja(8f);
        System.out.println("Manager 1:"+ m1.getNama());
        System.out.println("Gaji Manager 1:"+ m1.getGajiManager());
        System.out.println("Usia Manager 1:"+ m1.getUsia());
        System.out.println("Jam Kerja:"+ m1.jamKerja());

        m2.setNama("Veny");
        m2.setGaji(2500000);
        m2.setUsia(19);
        m2.SetjamKerja(8f);
        System.out.println("Manager 2:"+ m2.getNama());
        System.out.println("Gaji Manager 2:"+ m2.getGajiManager());
        System.out.println("Usia Manager 2:"+ m2.getUsia());
        System.out.println("Jam Kerja:"+ m2.jamKerja());
    }
}
```

Modul7 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

modul6 modul7

Source Packages <default package>

- Karyawan.java
- KaryawanDemo.java
- Manager.java
- ManagerDemo.java

modul7

- Modul7.java

Test Packages Libraries Test Libraries

ProjectPBO TugasPbo

ManagerDemo - Navigator

Members ManagerDemo main(String[] args)

ManagerDemo.java

```
37     m3.setNama("Fitriana");
38     m3.setGaji(230000);
39     m3.setUsia(19);
40     m3.SetjamKerja(8f);
41     System.out.println("Manager 3:"+ m3.getNama());
42     System.out.println("Gaji Manager 3:"+ m3.getGajiManager());
43     System.out.println("Usia Manager 3:"+ m3.getUsia());
44     System.out.println("Jam Kerja:"+ m3.jamKerja());
45
46     m4.setNama("Isnaini");
47     m4.setGaji(2100000);
48     m4.setUsia(19);
49     m4.SetjamKerja(8f);
50     System.out.println("Manager 4:"+ m4.getNama());
51     System.out.println("Gaji Manager 4:"+ m4.getGajiManager());
52     System.out.println("Usia Manager 4:"+ m4.getUsia());
53     System.out.println("Jam Kerja:"+ m4.jamKerja());
54
55     m5.setNama("Najwa");
56     m5.setGaji(2000000);
57     m5.setUsia(19);
58     m5.SetjamKerja(8f);
59     System.out.println("Manager 5:"+ m5.getNama());
60     System.out.println("Gaji Manager 5:"+ m5.getGajiManager());
61     System.out.println("Usia Manager 5:"+ m5.getUsia());
62     System.out.println("Jam Kerja:"+ m5.jamKerja());
63 }
64
65 }
```

9:22 | INS

21:28 15/11/2019

Modul7 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

modul6 modul7

Source Packages <default package>

- Karyawan.java
- KaryawanDemo.java
- Manager.java
- ManagerDemo.java

modul7

- Modul7.java

Test Packages Libraries Test Libraries

ProjectPBO TugasPbo

ManagerDemo - Navigator

Members ManagerDemo main(String[] args)

ManagerDemo.java

```
run:
Manager 1:Veny Fitriana Isnaini
Gaji Manager 1:6000000.0
Usia Manager 1:19
Jam Kerja:8
Manager 2:Veny
Gaji Manager 2:5000000.0
Usia Manager 2:19
Jam Kerja:8
Manager 3:Fitriana
Gaji Manager 3:4600000.0
Usia Manager 3:19
Jam Kerja:8
Manager 4:Isnaini
Gaji Manager 4:4200000.0
Usia Manager 4:19
Jam Kerja:8
Manager 5:Najwa
Gaji Manager 5:4000000.0
Usia Manager 5:19
Jam Kerja:8
BUILD SUCCESSFUL (total time: 2 seconds)
```

9:22 | INS

21:28 15/11/2019

BAB 8

POLYMORPHISM

8.2. LATIHAN

NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

Projects Files Services

Start Page pet.java Kucingku.java Anjingku.java TestPolymorphism.java Elang.java Hewan.java customerdata...

perilaku - Navigator

Members <empty>

pet

- berNama(String beriNama)
- panggilNama(): String
- perilaku(): String
- nama : String

Source History

```
4  * and open the template in the editor.
5  */
6
7  /**
8   * @author Windows 10
9   */
10
11 public class pet {
12     private String nama;
13
14     public void beriNama(String beriNama) {
15         this.nama = beriNama;
16     }
17
18     public String panggilNama() {
19         return this.nama;
20     }
21
22     public String perilaku() {
23         return "Hewan Penur";
24     }
25 }
26
```

pet perilaku

23:32 7:59 25/11/2019

MODUL8 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

Projects Files Services

Start Page pet.java Kucingku.java Anjingku.java TestPolymorphism.java Elang.java Hewan.java customerdata...

Kucingku - Navigator

Members <empty>

Kucingku :: pet

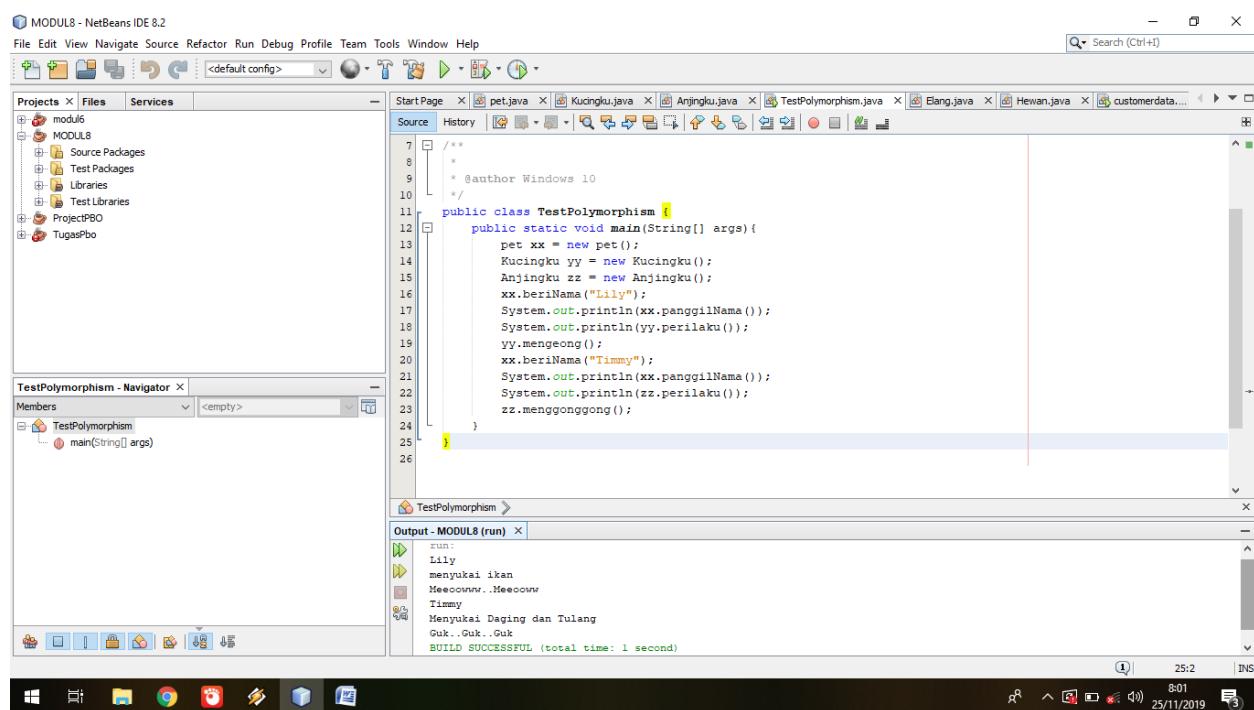
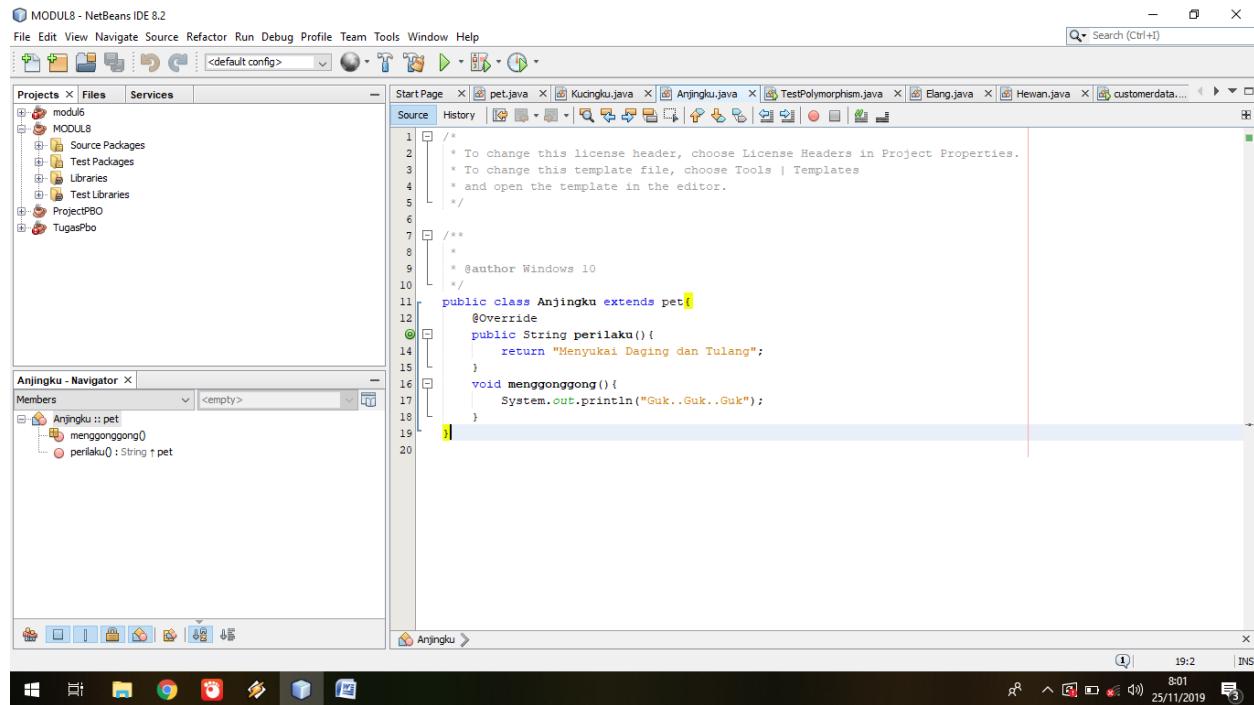
- makan()
- menggeong()
- perilaku(): String + pet

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   * @author Windows 10
9   */
10
11 public class Kucingku extends pet{
12     @Override
13     public String perilaku(){
14         return "menyukai ikan";
15     }
16
17     void menegeong(){
18         System.out.println("Meeooww..Meeooww");
19     }
20
21     void makan(){
22         System.out.println("Menyukai Ikan");
23     }
24 }
```

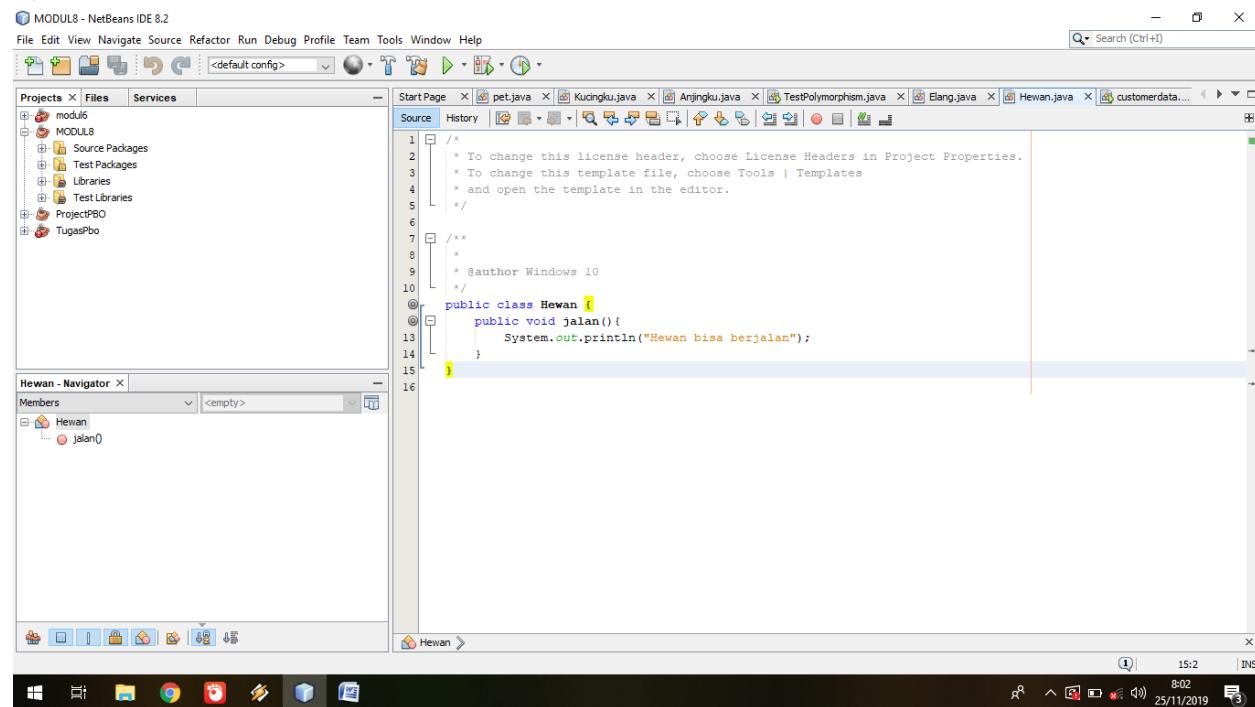
Kucingku

22:2 8:00 25/11/2019



8.3. TUGAS

1.



MODUL8 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

Projects Files Services

modul8 MODUL8

Source Packages Test Packages Libraries Test Libraries ProjectPBO TugasPbo

Start Page pet.java Kucingku.java Anjingku.java TestPolymorphism.java Elang.java Hewan.java customerdata.java

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author Windows 10
10 */
11 public class Hewan {
12     public void jalan(){
13         System.out.println("Hewan bisa berjalan");
14     }
15 }
```

Hewan - Navigator

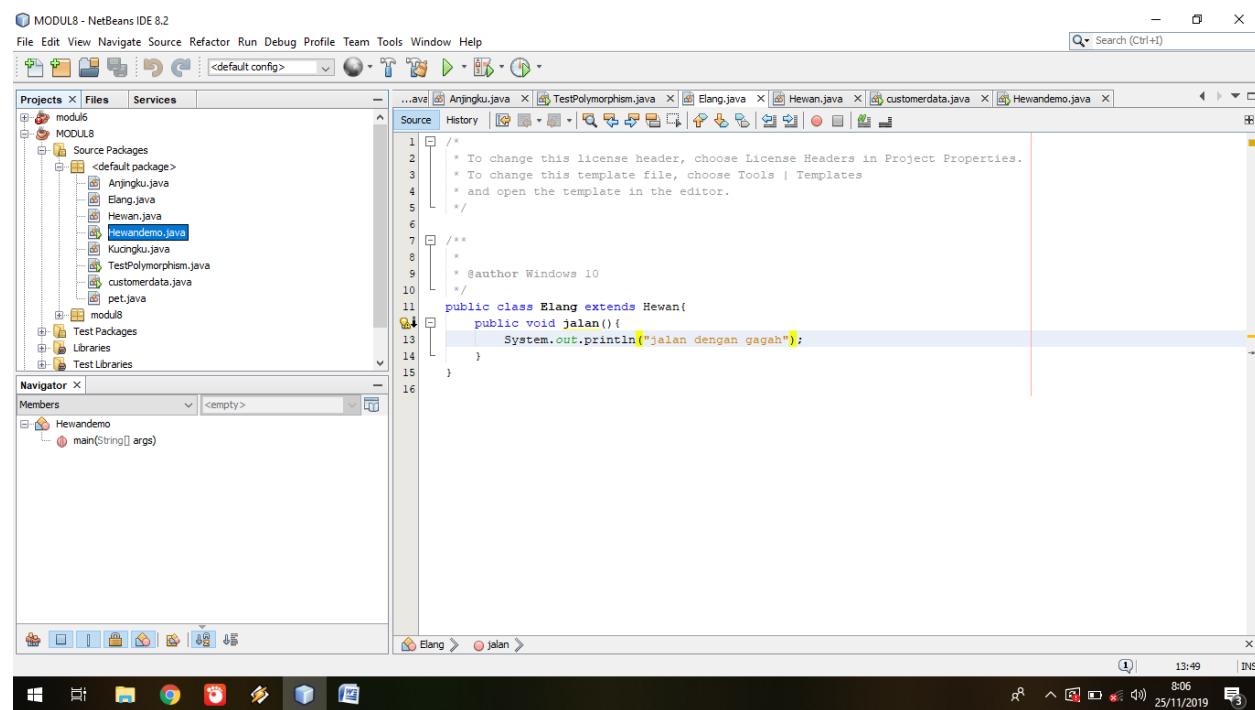
Members <empty>

Hewan jalan()

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

15:2 8:02 25/11/2019



MODUL8 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

Projects Files Services

modul8 MODUL8

Source Packages

<default package>

Anjingku.java Elang.java Hewan.java Hewandemo.java Kucingku.java TestPolymorphism.java customerdata.java pet.java

modul8

Test Packages Libraries Test Libraries

Source History

```
1 /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author Windows 10
10 */
11 public class Elang extends Hewan{
12     public void jalan(){
13         System.out.println("jalan dengan gagah");
14     }
15 }
```

Navigator

Members <empty>

Hewandemo main(String[] args)

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

13:49 8:06 25/11/2019

MODUL8 - NetBeans IDE 8.2

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   *
9   * @author Windows 10
10 */
11 public class Hewandemo {
12     public static void main(String[] args) {
13         Hewan h1 = new Hewan();
14         Elang el = new Elang();
15         el.jalan();
16         h1.jalan();
17     }
18 }

```

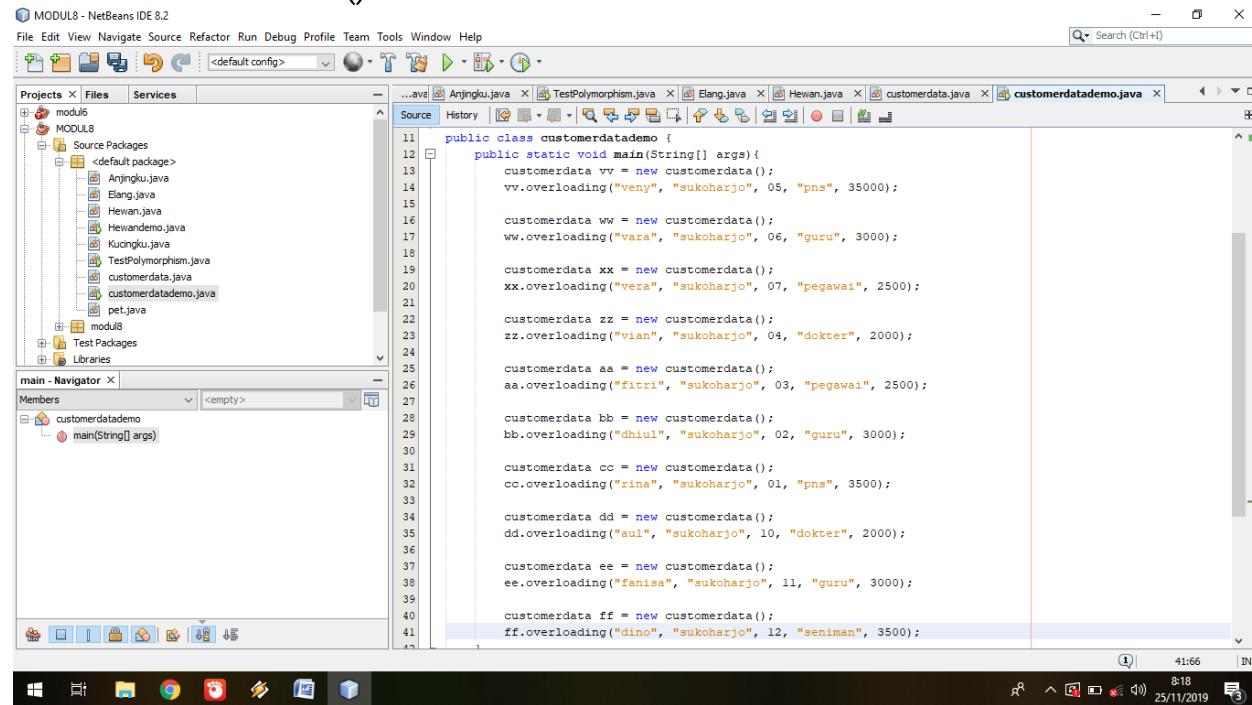
2. Membuat class customer data

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   *
9   * @author Windows 10
10 */
11 public class customerdata {
12     String nama;
13     String alamat;
14     int tglahir;
15     String pekerjaan;
16     int gaji;
17
18     public void overloading(String nama, String alamat, int tglahir, String pekerjaan, int gaji){
19         this.nama = nama;
20         this.alamat = alamat;
21         this.tglahir = tglahir;
22         this.pekerjaan = pekerjaan;
23         this.gaji = gaji;
24         System.out.println("nama : " + nama + "\alamat : " + alamat + "\tgllahir : " + tglahir +
25                           "\npekerjaan : " + pekerjaan + "\ngaji : " + gaji);
26     }
27 }

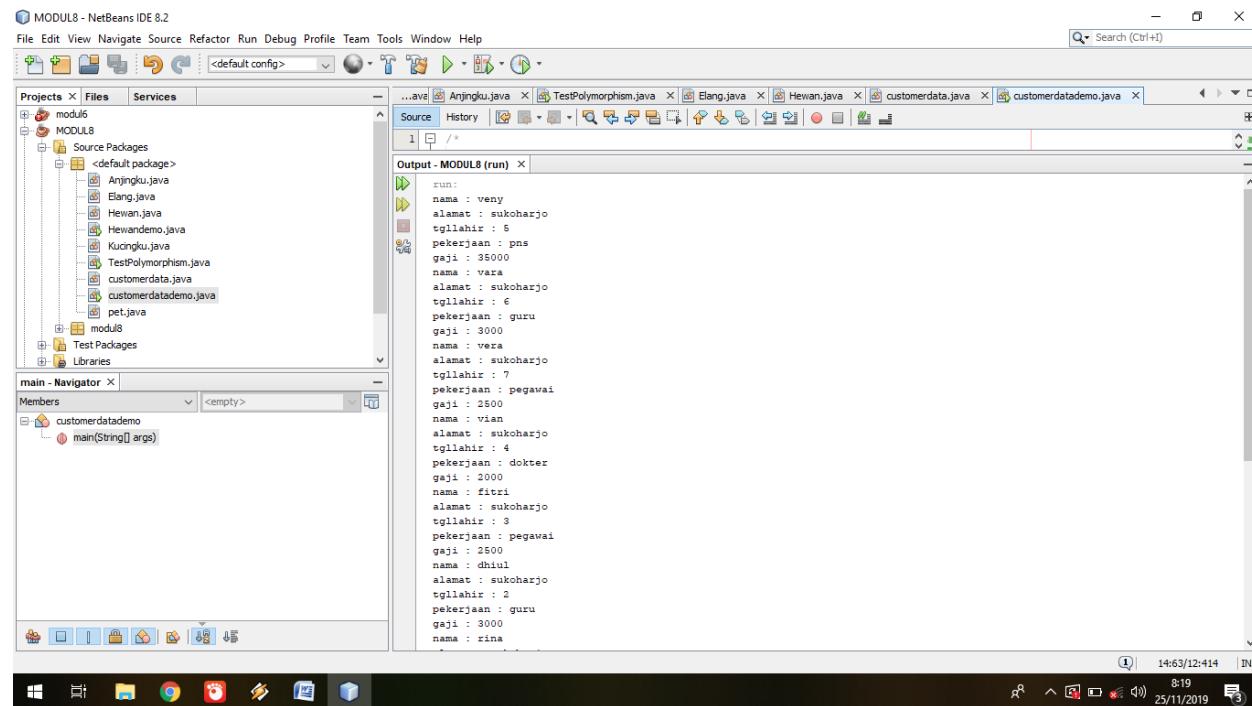
```

3. Membuat class main()



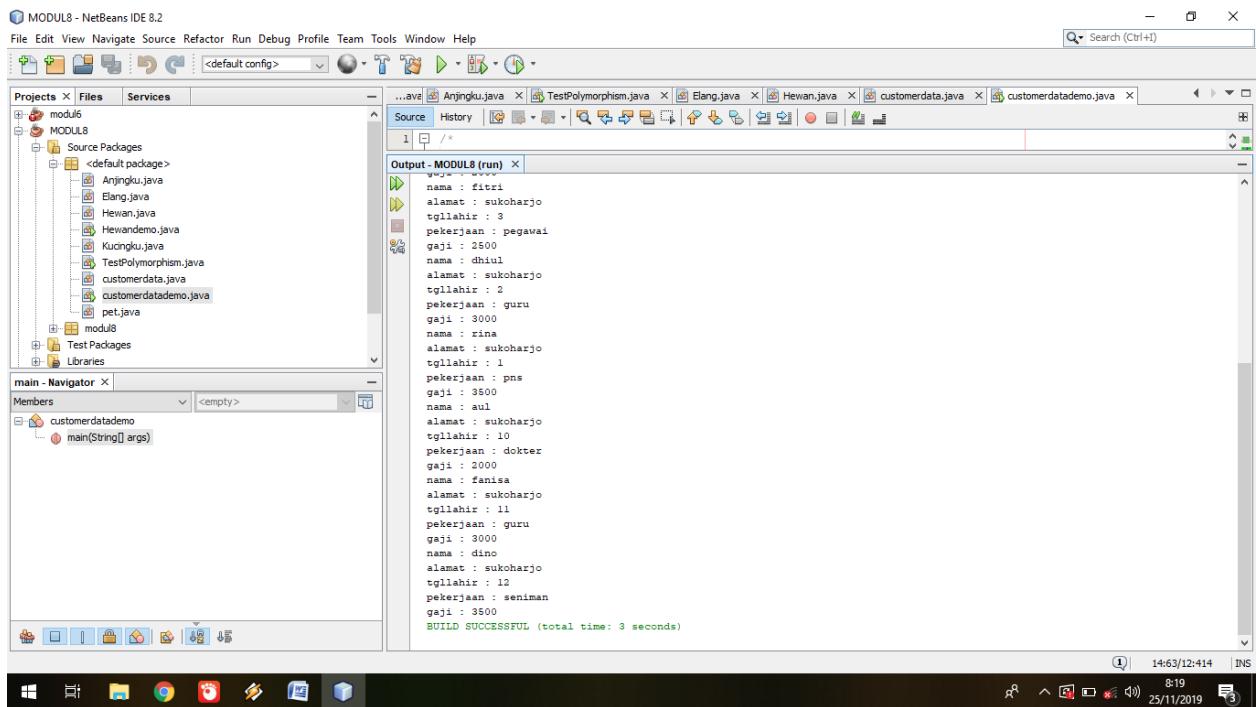
The screenshot shows the NetBeans IDE interface with the title "MODUL8 - NetBeans IDE 8.2". The Projects panel on the left lists several Java files under the "modul8" and "MODUL8" projects. The Source tab in the center editor pane displays the code for "customerdatademo.java". The code defines a public static void main method that creates multiple instances of the CustomerData class and calls their overloading methods. The code is as follows:

```
11  public class customerdatademo {
12      public static void main(String[] args){
13          customerdata vr = new customerdata();
14          vr.overloading("veny", "sukoharjo", 05, "pns", 35000);
15
16          customerdata ww = new customerdata();
17          ww.overloading("vara", "sukoharjo", 06, "guru", 3000);
18
19          customerdata xx = new customerdata();
20          xx.overloading("vera", "sukoharjo", 07, "pegawai", 2500);
21
22          customerdata zz = new customerdata();
23          zz.overloading("vian", "sukoharjo", 04, "dokter", 2000);
24
25          customerdata aa = new customerdata();
26          aa.overloading("fitri", "sukoharjo", 03, "pegawai", 2500);
27
28          customerdata bb = new customerdata();
29          bb.overloading("dhiul", "sukoharjo", 02, "guru", 3000);
30
31          customerdata cc = new customerdata();
32          cc.overloading("rina", "sukoharjo", 01, "pns", 3500);
33
34          customerdata dd = new customerdata();
35          dd.overloading("eul", "sukoharjo", 10, "dokter", 2000);
36
37          customerdata ee = new customerdata();
38          ee.overloading("fania", "sukoharjo", 11, "guru", 3000);
39
40          customerdata ff = new customerdata();
41          ff.overloading("dino", "sukoharjo", 12, "seniman", 3500);
42      }
43  }
```



The screenshot shows the NetBeans IDE interface with the title "MODUL8 - NetBeans IDE 8.2". The Projects panel on the left lists several Java files under the "modul8" and "MODUL8" projects. The Output tab in the center editor pane displays the console output for the "MODUL8 (run)" session. The output shows the results of the overloading methods for each customer instance, including name, address, birthdate, job, and salary. The output is as follows:

```
run:
nama : veny
alamat : sukoharjo
tgllahir : 5
pekerjaan : pns
gaji : 35000
nama : vara
alamat : sukoharjo
tgllahir : 6
pekerjaan : guru
gaji : 3000
nama : vera
alamat : sukoharjo
tgllahir : 7
pekerjaan : pegawai
gaji : 2500
nama : vian
alamat : sukoharjo
tgllahir : 4
pekerjaan : dokter
gaji : 2000
nama : fitri
alamat : sukoharjo
tgllahir : 3
pekerjaan : pegawai
gaji : 2500
nama : dhiul
alamat : sukoharjo
tgllahir : 2
pekerjaan : guru
gaji : 3000
nama : rina
```



MODUL 9

ABSTRACT CLASS

9.3. LATIHAN

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Source Packages: <default package>, abstrakclass.java, jajargenjang.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegipanjang.java, segitiga.java, turunanabstrakclass.java, modul9

Test Packages: Libraries:

Navigator: Members: <empty>

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author LABRPL-7
10 */
11 public class persegipanjang extends methodabstract{
12     int panjang = 5;
13     int lebar = 10;
14
15     public int luas(){
16         return panjang * lebar;
17     }
18
19     public int keliling(){
20         return 2 * (panjang + lebar);
21     }
22 }
```

23

23:1 INS 3:24 PM 11/29/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Source Packages: <default package>, abstrakclass.java, jajargenjang.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegipanjang.java, segitiga.java, turunanabstrakclass.java, modul9

Test Packages: Libraries:

Navigator: Members: <empty>

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author LABRPL-7
10 */
11 public class jajargenjang extends methodabstract {
12     int a = 4;
13     int b = 8;
14     int t = 12;
15
16     public int luas(){
17         return a * t;
18     }
19
20     public int keliling(){
21         return 2 * (a + b);
22     }
23 }
```

24

14:10 INS 3:26 PM 11/29/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

Source Packages <default package>

- abstrakclass.java
- jaajaranjang.java
- lingkaran.java
- methodabstract.java
- methodmain.java
- objekabstrakclass.java
- persegi.java
- persegipanjang.java
- segitiga.java
- turunanabstrakclass.java

modul9 Test Packages Libraries

Navigator Members

Members

Lingkaran :: methodabstract

- kelling0 : int \dagger methodabstract
- luas0 : int \dagger methodabstract
- phi : double
- r : int

Source History

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates.
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author LABRPL-7
10 */
11 public class lingkaran extends methodabstract {
12     int r = 10;
13     double phi = 3.14f;
14
15     public int luas(){
16         return (int) (phi * r * r);
17     }
18
19     public int keliling(){
20         return (int) (2 * phi * r);
21     }
22 }
23
24 }
```

lingkaran > kelling >

20:36 INS

3:26 PM 11/29/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Files Services

Source Packages <default package>

- abstrakclass.java
- jaajaranjang.java
- lingkaran.java
- methodabstract.java
- methodmain.java
- objekabstrakclass.java
- persegi.java
- persegipanjang.java
- segitiga.java
- turunanabstrakclass.java

modul9 Test Packages Libraries

Navigator Members

Members

segitiga :: methodabstract

- kelling0 : int \dagger methodabstract
- luas0 : int \dagger methodabstract
- a : int
- b : int
- c : int
- sgh : double
- t : int

Source History

```
4
5     * and open the template in the editor.
6
7 /**
8 *
9 * @author LABRPL-7
10 */
11 public class segitiga extends methodabstract{
12     int a = 4;
13     int b = 5;
14     int c = 6;
15     int t = 7;
16     double sgh = 0.5f;
17
18     public int luas(){
19         return (int) (sgh * a * t);
20     }
21
22     public int keliling(){
23         return a + b + c;
24     }
25
26 }
27 }
```

segitiga > kelling >

Click or press C-T to hide/show when the Navigator is active

23:19 INS

3:27 PM 11/29/2019

MODUL9 - NetBeans IDE 8.2

```

public class methodmain {
    public static void main(String[] args) {
        persegi rr = new persegi();
        System.out.println("keliling persegi = " + rr.getkell());
        System.out.println("luas persegi = " + rr.getluas());
        persegipanjang rp = new persegipanjang();
        System.out.println("keliling persegi panjang = " + rp.getkell());
        System.out.println("luas persegi panjang = " + rp.getluas());
        jajarangenjang pr = new jajarangenjang();
        System.out.println("keliling jajar genjang = " + pr.getkell());
        System.out.println("luas jajar genjang = " + pr.getluas());
        lingkarang qr = new lingkarang();
        System.out.println("keliling lingkaran = " + qr.getkell());
        System.out.println("luas lingkaran = " + qr.getluas());
        segitiga rq = new segitiga();
        System.out.println("keliling segitiga = " + rq.getkell());
        System.out.println("luas segitiga = " + rq.getluas());
    }
}

```

Output - MODUL9 (run) :

```

keliling persegi panjang = 30
luas persegi panjang = 50
keliling jajar genjang = 24
luas jajar genjang = 48
keliling lingkaran = 62
luas lingkaran = 314
keliling segitiga = 15
luas segitiga = 14
BUILD SUCCESSFUL (total time: 0 seconds)

```

17:23 3:30 PM 11/29/2019

9.4. TUGAS

MODUL9 - NetBeans IDE 8.2

```

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package modul9;

public abstract class methodabstract2 {
    public abstract int volume();
    public abstract int luaspermukaan();

    public int getvolume() {
        return volume();
    }

    public int getluaspermukaan() {
        return luaspermukaan();
    }
}

```

12:17 18:52 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Files Services

customerdata.java customerdatademo.java pet.java modul8 Test Packages Libraries Test Libraries MODUL9 Source Packages modul9 balok.java bangunruangdemo.java bola.java kerucut.java kubus.java methodabstract2.java

luaspermukaan - Navigator X

Members

balok :: methodabstract2

- luaspermukaan : int ↑ methodabstract2
- volume0 : int ↑ methodabstract2
- I : int
- p : int
- t : int

Source History

...java methodabstract2.java balok.java kubus.java bola.java kerucut.java prismasegitiga.java bangunruangdemo.java

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6 package modul9;  
7  
8 /**  
9  * @author Windows 10  
10 */  
11 public class balok extends methodabstract2{  
12     int p = 4;  
13     int l = 3;  
14     int t = 2;  
15  
16     public int volume(){  
17         return p * l * t;  
18     }  
19  
20     public int luaspermukaan(){  
21         return 2 * (p * t + p * l + t * l);  
22     }  
23 }  
24 }
```

22:44 18:52 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Files Services

customerdata.java customerdatademo.java pet.java modul8 Test Packages Libraries Test Libraries MODUL9 Source Packages modul9 balok.java bangunruangdemo.java bola.java kerucut.java kubus.java methodabstract2.java

Navigator X

Members

kubus :: methodabstract2

- luaspermukaan : int ↑ methodabstract2
- volume0 : int ↑ methodabstract2
- s : int

Source History

...java methodabstract2.java balok.java kubus.java bola.java kerucut.java prismasegitiga.java bangunruangdemo.java

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6 package modul9;  
7  
8 /**  
9  * @author Windows 10  
10 */  
11 public class kubus extends methodabstract2{  
12     int s = 8;  
13  
14     public int volume(){  
15         return s * s * s;  
16     }  
17  
18     public int luaspermukaan(){  
19         return 6 * s * s;  
20     }  
21 }  
22 }
```

20:26 18:52 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Files Services

customerdata.java customerdatademo.java pet.java modul8 Test Packages Libraries Test Libraries MODUL9 Source Packages modul9 balok.java bangunruangdemo.java kerucut.java kubus.java methodabstract2.java

luaspermukaan - Navigator X

Members <empty>

luaspermukaan() : int ? methodabstract2 volume() : int ? methodabstract2 empatpertiga : double phi : double r: int

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package modul9;
7
8 /**
9 *
10 * @author Windows 10
11 */
12 public class bola extends methodabstract2{
13     int x = 1000;
14     double phi = 3.14f;
15     double empatpertiga = 1.3333f;
16
17     public int volume(){
18         return (int) (empatpertiga * phi * x * x * x);
19     }
20
21     public int luaspermukaan(){
22         return (int) (4 * phi * x * x);
23     }
24 }
```

22:40 18:52 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects X Services X Files X

methodabstract2.java balok.java kubus.java bola.java kerucut.java primasegitiga.java bangunruangdemo.java

modul6 MODUL8 MODUL9 Source Packages modul9 balok.java bangunruangdemo.java bola.java kerucut.java kubus.java methodabstract2.java primasegitiga.java Test Packages Libraries Test Libraries ProjectPBO TugasPbo

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package modul9;
7
8 /**
9 *
10 * @author Windows 10
11 */
12 public class kerucut extends methodabstract2{
13     int x = 100;
14     int t = 80;
15     int s = 60;
16     double phi = 3.14f;
17     double sepertiga = 0.33333f;
18
19     public int luaspermukaan(){
20         return (int) (phi * x * (x + s));
21     }
22
23     public int volume(){
24         return (int) (sepertiga * phi * x * x * t);
25     }
26 }
```

24:52 18:53 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services Files

modul6 MODUL8 MODUL9

Source Packages modul9

- balok.java
- bangunruangdemo.java
- bola.java
- kerucut.java
- kubus.java
- methodabstract2.java
- prismasegitiga.java

Test Packages Libraries Test Libraries ProjectPBO TugasPbo

Source History

```
1  * To change this license header, choose License Headers in Project Properties.
2  * To change this template file, choose Tools | Templates
3  * and open the template in the editor.
4  */
5  package modul9;
6
7  /**
8  *
9  * @author Windows 10
10 */
11
12 public class prismasegitiga extends methodabstract2{
13     int a = 20;
14     int ts = 22;
15     double stngh = 0.5f;
16     int tp = 30;
17     int luasbidangtegak = 300;
18
19     public int volume(){
20         return (int) ((stngh * a * ts) * tp);
21     }
22
23     public int luaspermukaan(){
24         return (int) (2 * (stngh * a * ts) + (3 * (tp * a)));
25     }
26
27 }
```

24:53 29/11/2019

MODUL9 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services Files

modul6 MODUL8 MODUL9

Source Packages modul9

- balok.java
- bangunruangdemo.java
- bola.java
- kerucut.java
- kubus.java
- methodabstract2.java
- prismasegitiga.java

Test Packages Libraries Test Libraries ProjectPBO TugasPbo

Source History

```
11 /*
12  * public class bangunruangdemo {
13  *     public static void main(String[] args){
14  *         balok bl = new balok();
15  *         kubus kb = new kubus();
16  *         bola bla = new bola();
17  *         kerucut kr = new kerucut();
18  *         prismasegitiga ps = new prismasegitiga();
19  *         System.out.println("volume balok = " + bl.getvolume());
20  *         System.out.println("luas permukaan balok = " + bl.getluaspermukaan());
21  *         System.out.println("volume kubus = " + kb.getvolume());
22  *         System.out.println("luas permukaan kubus = " + kb.getluaspermukaan());
23  *         System.out.println("volume bola = " + bla.getvolume());
24  *         System.out.println("luas permukaan bola = " + bla.getluaspermukaan());
25  *         System.out.println("volume kerucut = " + kr.getvolume());
26  *         System.out.println("luas permukaan kerucut = " + kr.getluaspermukaan());
27  *         System.out.println("volume prisma segitiga = " + ps.getvolume());
28  *         System.out.println("luas permukaan prisma segitiga = " + ps.getluaspermukaan());
29     }
30 }
```

:Output - MODUL9 (run)

```
volume balok = 24
luas permukaan balok = 52
volume kubus = 512
luas permukaan kubus = 384
volume bola = 2147483647
luas permukaan bola = 12560000
volume kerucut = 837325
luas permukaan kerucut = 50240
volume prisma segitiga = 6600
luas permukaan prisma segitiga = 2240
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output 12:31 29/11/2019

MODUL 10

INTERFACE

TUGAS

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul10 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar.
- Projects Tab:** Shows the project structure for "Modul10".
- Source Packages:** Contains the "ActivityLampu.java" file under the default package.
- Source Editor:** Displays the code for the `ActivityLampu` interface:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author ASUS_White
10 */
11 public interface ActivityLampu {
12     public static final int LAMPU_HIDUP=1;
13     public static final int LAMPU_MATI=0;
14     public static final int LAMPU_REDUP=2;
15     public abstract void matikanLampu();
16     public abstract void hidupkanLampu();
17     public abstract void redupkanLampu();
18 }
```
- Navigator:** Shows members of the `ActivityLampu` interface: `hidupkanLampu()`, `matikanLampu()`, `redupkanLampu()`, `LAMPU_HIDUP : int`, `LAMPU_MATI : int`, and `LAMPU_REDUP : int`.
- Bottom Status Bar:** Shows the date and time: 12/6/2019, 3:08 PM, and the IDE status: INS.

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul10 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar.
- Projects Tab:** Shows the project structure for "Modul10".
- Source Packages:** Contains the "Lampu.java" file under the default package.
- Source Editor:** Displays the code for the `Lampu` class implementing `ActivityLampu`:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author ASUS_White
10 */
11 public class Lampu implements ActivityLampu {
12     public int statusLampu;
13
14     @Override
15     public void matikanLampu() {
16         if(statusLampu==0){
17             System.out.println("Lampu sudah dalam kondisi mati");
18         }else if(statusLampu==1){
19             statusLampu=-1;
20             System.out.println("Lampu sudah dimatikan");
21         }
22     }
23     @Override
24     public void hidupkanLampu() {
25         if(statusLampu==1){
26             System.out.println("Lampu sudah dinyalakan\n***");
27         }else{
28             statusLampu+=1;
29             System.out.println("Lampu sudah dalam kondisi menyala");
30         }
31     }
32 }
```
- Navigator:** Shows members of the `Lampu` class: `hidupkanLampu()`, `matikanLampu()`, `redupkanLampu()`, `setSaklar(int saklar) : int`, and `statusLampu : int`.
- Bottom Status Bar:** Shows the date and time: 12/6/2019, 3:33 PM, and the IDE status: INS.

Modul10 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Source Packages <default package>

- ActivityAnimal.java
- ActivityLampu.java
- AplikasiLampu.java
- Lampu.java
- Mamalia.java
- NamaInterface.java

Test Packages Libraries Test Libraries

redupkanLampu - Navigator

Members

- Lampu :: ActivityLampu
- hidupkanLampu()
- matikanLampu()
- redupkanLampu()
- setSaklar(int saklar) : int
- statusLampu : int

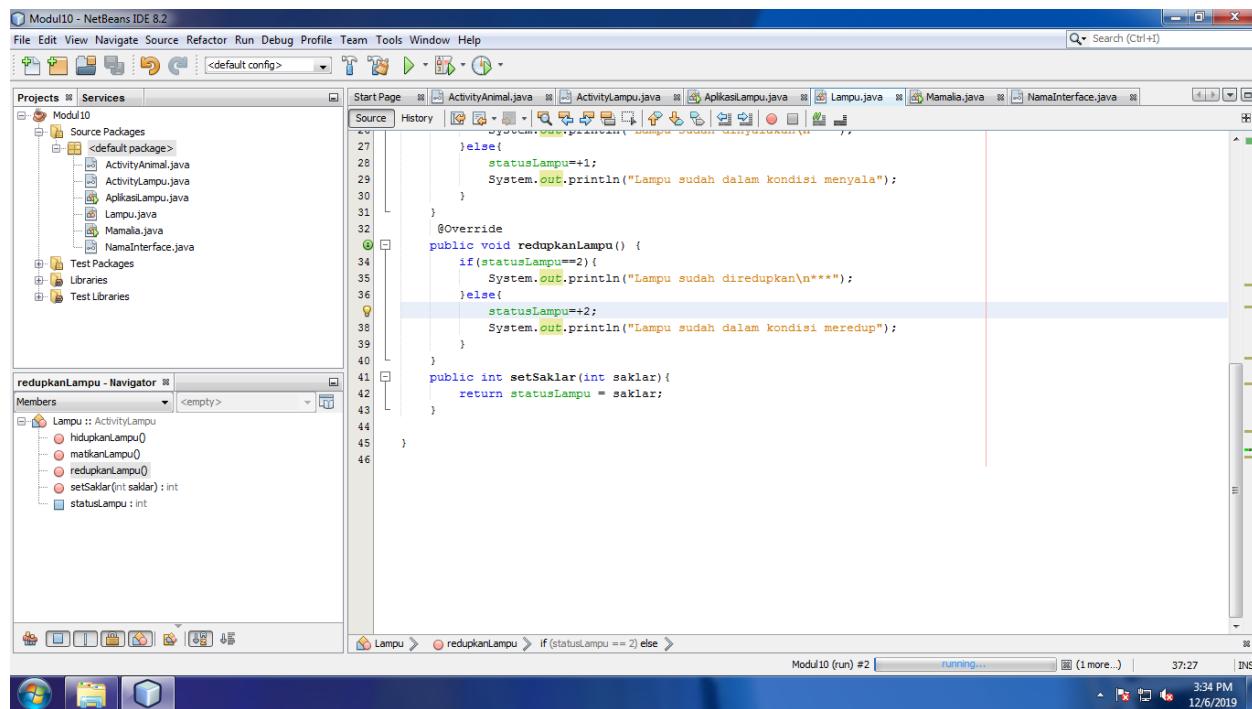
Start Page ActivityAnimal.java ActivityLampu.java AplikasiLampu.java Lampu.java Mamalia.java NamaInterface.java

Source History

```
    } else{
        statusLampu+=1;
        System.out.println("Lampu sudah dalam kondisi menyala");
    }
}
@Override
public void redupkanLampu() {
    if(statusLampu==2){
        System.out.println("Lampu sudah direduakan\n***");
    } else{
        statusLampu+=2;
        System.out.println("Lampu sudah dalam kondisi meredup");
    }
}
public int setSaklar(int saklar){
    return statusLampu = saklar;
}
```

Lampu > redupkanLampu > if (statusLampu == 2) else >

Modul10 (run) #2 running... (1 more...) 37:27 12/6/2019 3:34 PM INS



Modul10 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Source Packages <default package>

- ActivityAnimal.java
- ActivityLampu.java
- AplikasiLampu.java
- Lampu.java
- Mamalia.java
- NamaInterface.java

Test Packages Libraries Test Libraries

main - Navigator

Members

- AplikasiLampu
- main(String[] args)

Start Page ActivityAnimal.java ActivityLampu.java AplikasiLampu.java Lampu.java Mamalia.java NamaInterface.java

Source History

```
public class AplikasiLampu {
    public static void main(String[] args){
        Lampu lampu = new Lampu();
        Scanner sc = new Scanner(System.in);
        lampu.statusLampu = lampu.setSaklar(0);
        System.out.println("Status Lampu = "+lampu.statusLampu+"\nketikkan");
        System.out.println("1 untuk menyalaikan lampu\n0 untuk mematikan lampu\n2 untuk meredupkan lampu");

        int a = sc.nextInt();
        if(lampu.setSaklar(a)==0){
            lampu.matikanLampu();
        }else if(lampu.setSaklar(a)==1){
            lampu.hidupkanLampu();
        }else{
            lampu.redupkanLampu();
        }
    }
}
```

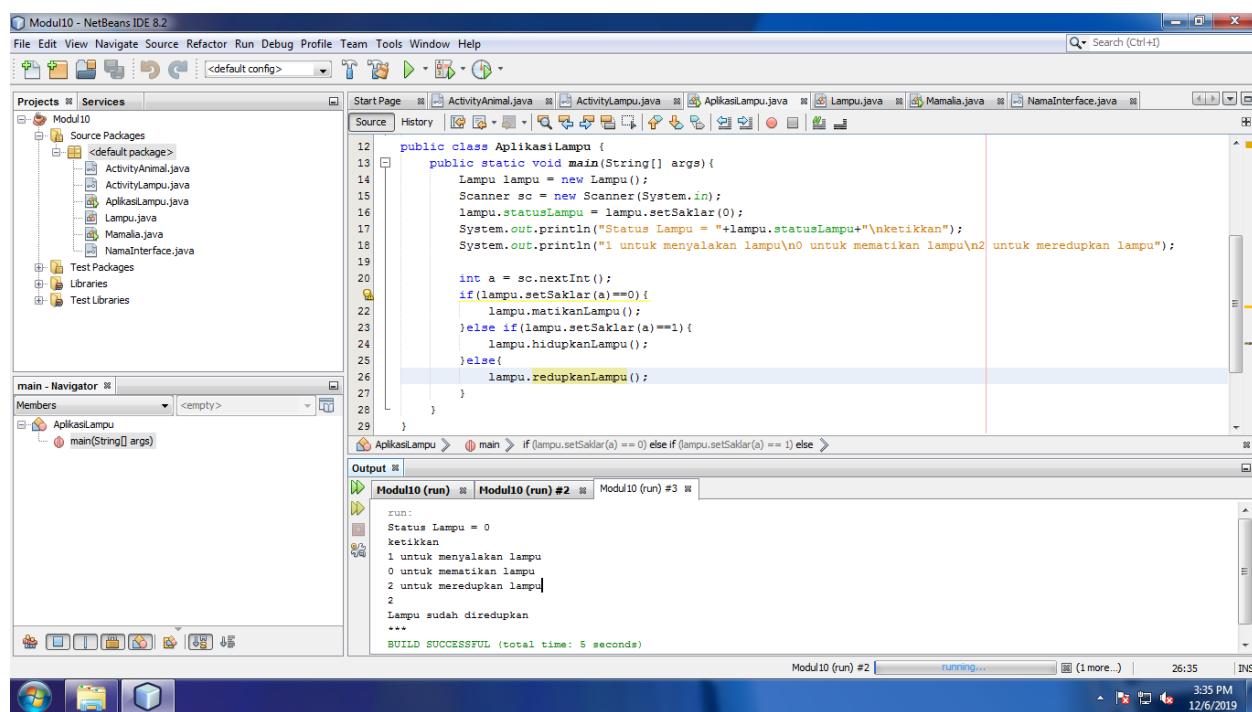
AplikasiLampu > main > if (lampu.setSaklar(a) == 0) else if (lampu.setSaklar(a) == 1) else >

Output

Modul10 (run) Modul10 (run) #2 Modul10 (run) #3

```
run:
Status Lampu = 0
ketikkan
1 untuk menyalaikan lampu
0 untuk mematikan lampu
2 untuk meredupkan lampu
2
Lampu sudah direduakan
***
BUILD SUCCESSFUL (total time: 5 seconds)
```

Modul10 (run) #2 running... (1 more...) 26:35 12/6/2019 3:35 PM INS



MODUL 11

NESTED CLASS

11.4. LATIHAN

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** modul 11 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar.
- Projects Tab:** Shows the project structure under "modul 11".
- Code Editor:** Displays the code for `NestedClass.java`. The code defines a nested class `NestedClass` with a constructor and a method `printNama`. It also defines a static nested class `StaticNestedClass` with a constructor and a method `jurusan`. The `main` method creates an instance of `StaticNestedClass` and calls its `jurusan` method.
- Output - modul 11 (run) Tab:** Shows the console output:

```
run:
Jurusan: Informatika
Veny Fitriana Isnaini : L200180045
BUILD SUCCESSFUL (total time: 0 seconds)
```
- Bottom Status Bar:** Shows the date and time: 12/13/2019, 9:21 PM.

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** modul 11 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar.
- Projects Tab:** Shows the project structure under "modul 11".
- Code Editor:** Displays the code for `NestedClassDemo.java`. The code defines a main class `NestedClassDemo` with a `main` method. Inside `main`, it creates an instance of `NestedClass` and calls its `jurusan` method. It also calls `printNama` on the `NestedClass` object.
- Output - modul 11 (run) Tab:** Shows the console output:

```
run:
Jurusan: Informatika
Veny Fitriana Isnaini : L200180045
BUILD SUCCESSFUL (total time: 0 seconds)
```
- Bottom Status Bar:** Shows the date and time: 12/13/2019, 3:56 PM.

MODUL 12
GRAPHICAL USER INTERFACE (GUI)

The screenshot shows the NetBeans IDE interface with the following details:

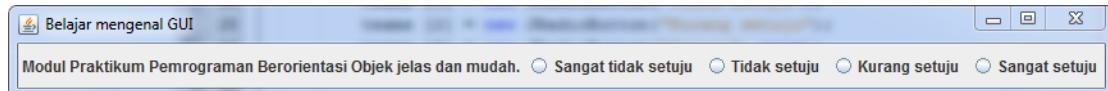
- Title Bar:** Modul 12 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help
- Toolbar:** Includes icons for New Project, Open Project, Save, Build, Run, Stop, and others.
- Project Explorer (Projects Tab):** Shows the project structure with modules, source packages, and test packages. The source package contains files like DemRadioButton.java, DemLabel.java, DemTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, and Utama.java.
- Code Editor:** Displays the Java code for `DemRadioButton.java`. The code creates a `JFrame` with a `JPanel` containing a `JRadioButton` group. It defines four radio buttons with labels: Sangat tidak setuju, Tidak setuju, Kurang setuju, Setuju, and Sangat setuju. The `Setuju` button is selected by default.

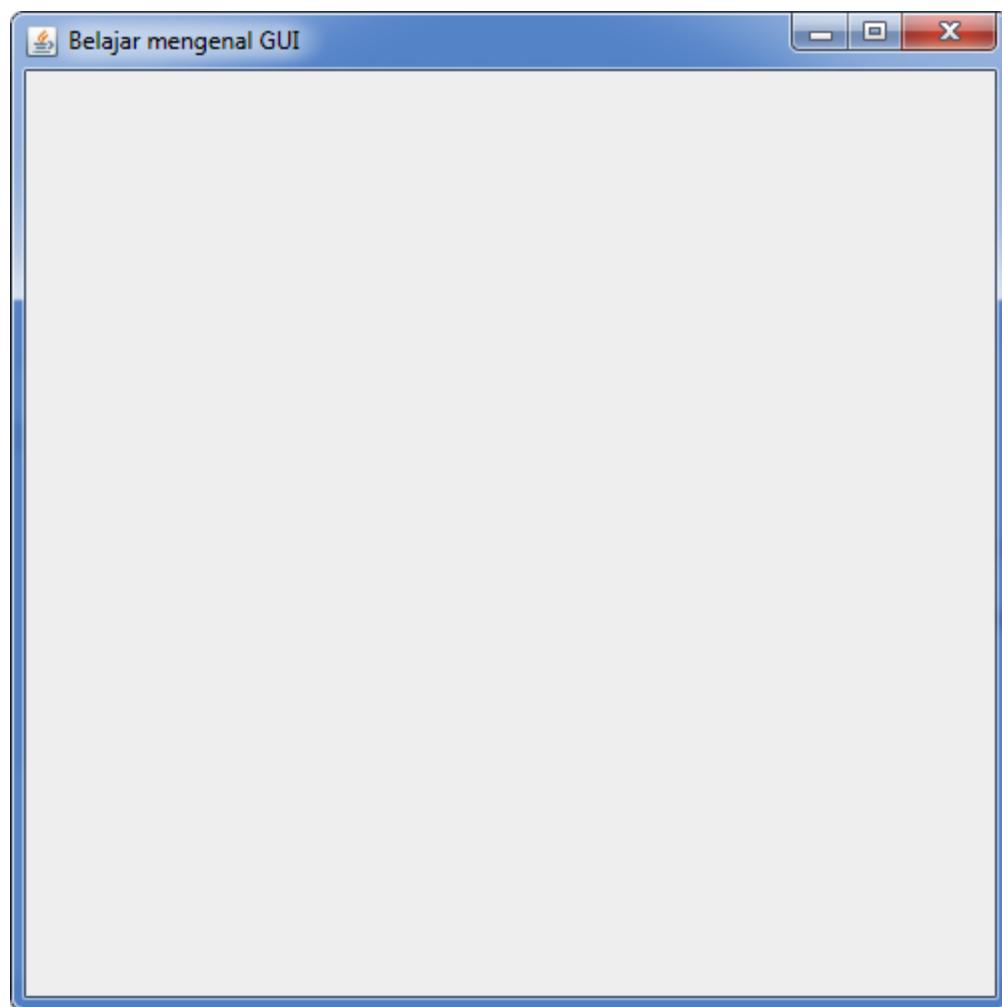
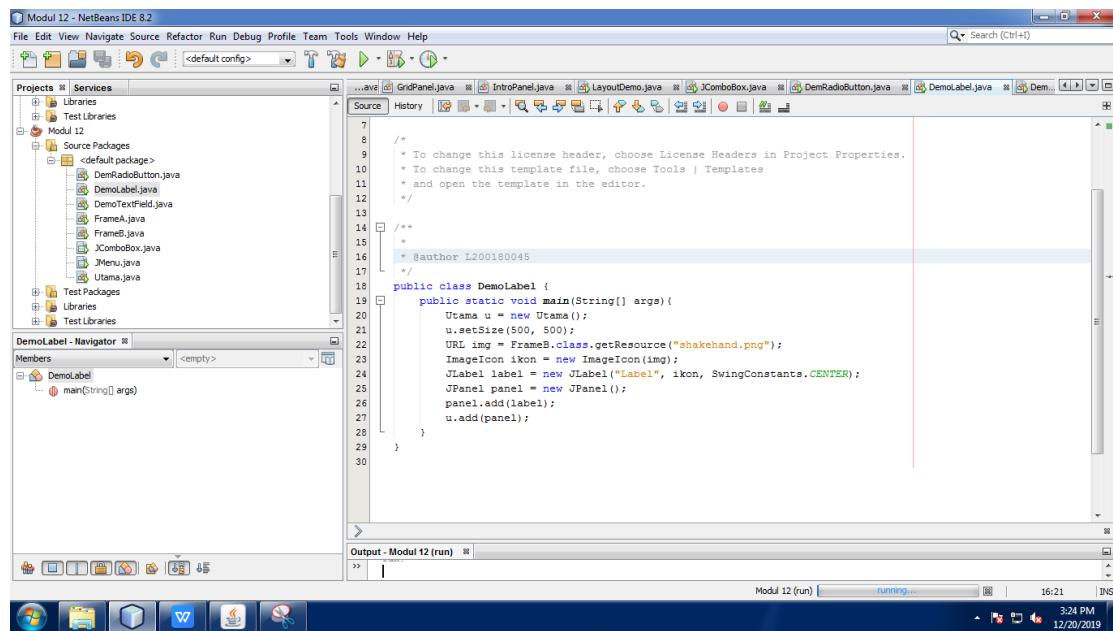
```
1 import javax.swing.ButtonGroup;
2 import javax.swing.JLabel;
3 import javax.swing.JPanel;
4 import javax.swing.JRadioButton;
5
6 /*
7 * To change this license header, choose License Headers in Project Properties.
8 * To change this template file, choose Tools | Templates
9 * and open the template in the editor.
10 */
11
12 /**
13 */
14 /**
15 * @author L200180045
16 */
17 public class DemRadioButton {
18     public static void main(String[] args){
19         Utama u = new Utama();
20         u.setSize(1000, 100);
21
22         JRadioButton[] teams = new JRadioButton[4];
23         teams [0] = new JRadioButton("Sangat tidak setuju");
24         teams [1] = new JRadioButton("Tidak setuju");
25         teams [2] = new JRadioButton("Kurang setuju");
26         teams [3] = new JRadioButton("Setuju", true);
27         teams [3] = new JRadioButton("Sangat setuju");
28     }
29 }
```

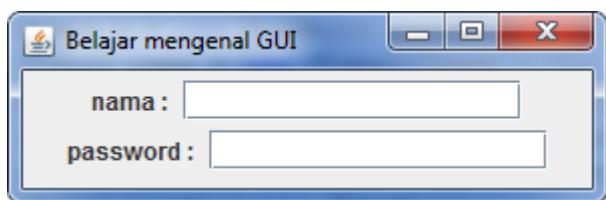
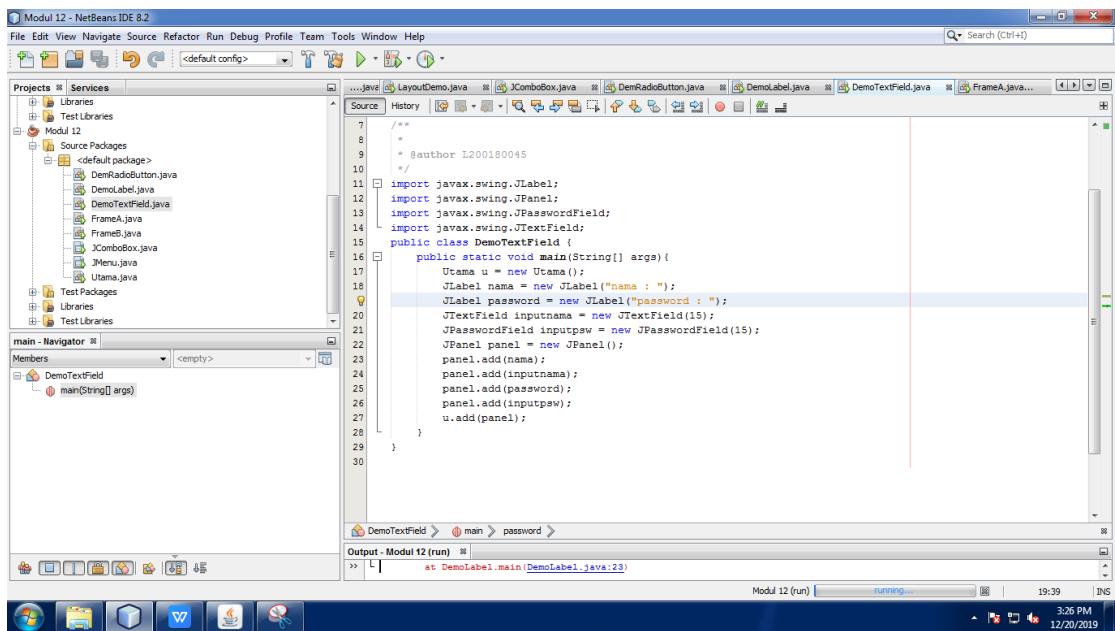
- Output Tab:** Shows the output of the run command, indicating two runs for Modul 12.
- Bottom Status Bar:** Shows the time as 3:22 PM and the date as 12/20/2019.

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** Modul 12 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help
- Toolbar:** Includes icons for New Project, Open Project, Save, Undo, Redo, Cut, Copy, Paste, Find, Replace, and Run.
- Project Explorer (Projects Tab):** Shows the project structure for "Modul 12". It includes a "Source Packages" node containing files: DemRadioButton.java, DemLabel.java, DemTextField.java, FrameB.java, JPanel.java, JCombobox.java, JMenu.java, and Utama.java. There are also "Test Packages", "Libraries", and "Test Libraries" nodes.
- Code Editor:** Displays the Java code for the "DemRadioButton.java" file. The code creates a window with a panel containing four radio buttons labeled "Sangat tidak setuju", "Tidak setuju", "Setuju", and "Sangat setuju". The "Setuju" button is selected by default. The code uses a ButtonGroup and a JPanel.
- Navigator:** Shows the members of the current class, including the main method and the DemRadioButton class definition.
- Output:** Shows the run output for "Modul 12 (run)" and "Modul 12 (run) #2".
- System Tray:** Shows the Windows taskbar with icons for Start, File Explorer, Task View, and a blue square icon. The status bar at the bottom right shows the time as 3:23 PM and the date as 12/20/2019.







Modul 12 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Modul 12

Source Packages

<default package>

- DemoRadioButton.java
- DemoLabel.java
- DemoTextField.java
- FrameA.java
- FrameB.java
- JComboBox.java
- JMenu.java
- Utama.java

Test Packages Libraries Test Libraries

Navigator Members

FrameA : JFrame

FrameA()

main(String[] args)

Source History

...java JComboBox.java DemRadioButton.java DemoLabel.java DemoTextField.java FrameA.java FrameB.java JMenu.java

FrameA.java

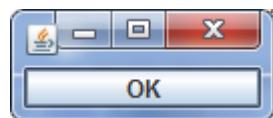
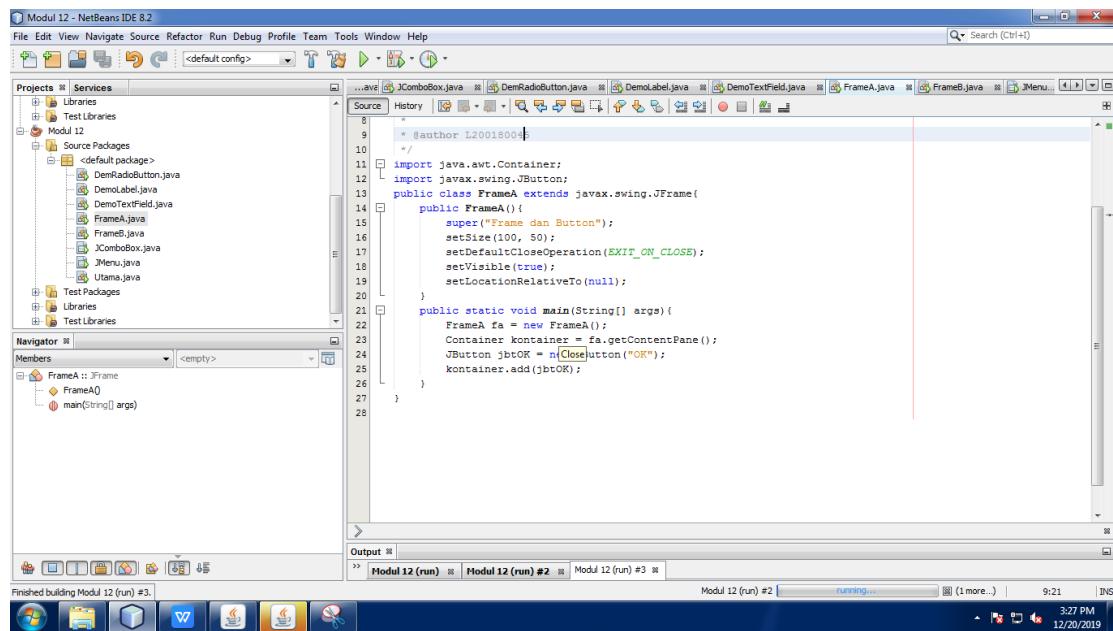
```
8 * @author L20018004
9 /*
10  */
11 import java.awt.Container;
12 import javax.swing.JButton;
13 public class FrameA extends javax.swing.JFrame{
14     public FrameA(){
15         super("Frame dan Button");
16         setSize(100, 50);
17         setDefaultCloseOperation(EXIT_ON_CLOSE);
18         setVisible(true);
19         setLocationRelativeTo(null);
20     }
21     public static void main(String[] args){
22         FrameA fa = new FrameA();
23         Container kontainer = fa.getContentPane();
24         JButton jbtOK = new JButton("OK");
25         kontainer.add(jbtOK);
26     }
27 }
28 }
```

Output

Model 12 (run) # Model 12 (run) #2 Model 12 (run) #3

Model 12 (run) #2 running... (1 more...) | 9:21 INS

3:27 PM 12/20/2019



Modul 12 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Services

Modul 12

Source Packages

default package

- DemoRadioButton.java
- DemoTextField.java
- FrameA.java
- FrameB.java
- JMenu.java
- JComboBox.java
- Koala.jpg
- Utama.java

Test Packages Libraries

Navigator Members

FrameB :: JFrame

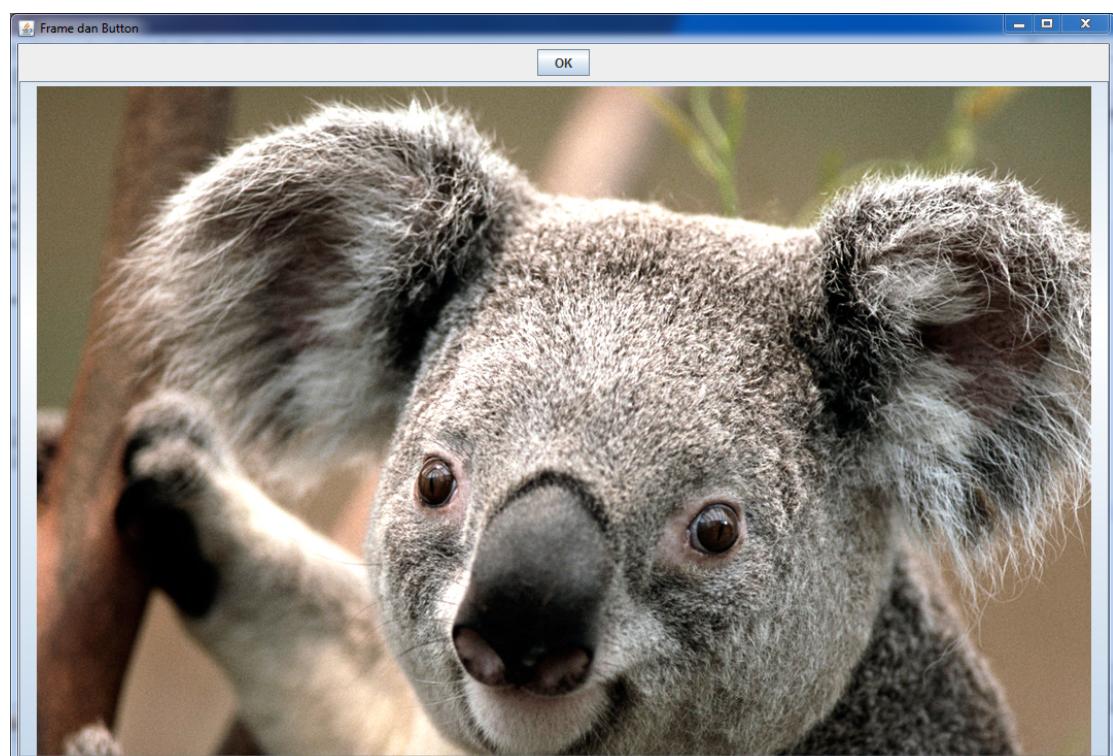
FrameB()

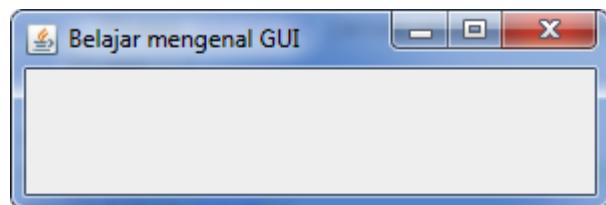
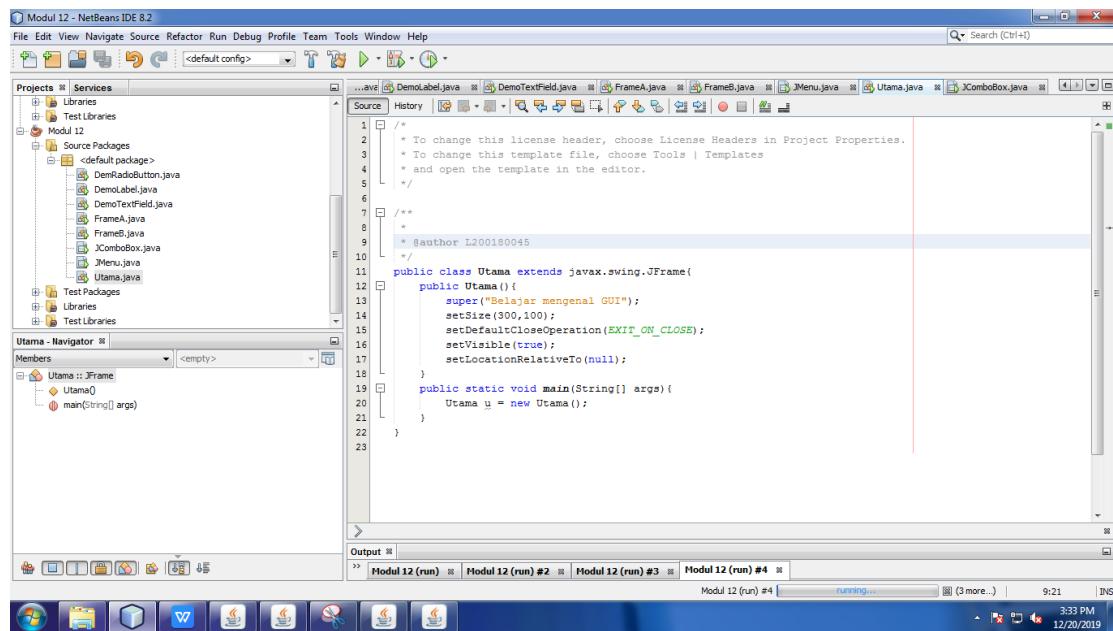
main(String[] args)

Output - Modul 12 (run) > main > img

```
7  /*
8   * 
9   * @author L200180045
10  */
11 import java.net.URL;
12 import javax.swing.ImageIcon;
13 import javax.swing.JButton;
14 import javax.swing.JPanel;
15 public class FrameB extends javax.swing.JFrame{
16     public FrameB(){
17         super("Frame dan Button");
18         setSize(500, 500);
19         setDefaultCloseOperation(EXIT_ON_CLOSE);
20         setVisible(true);
21         setLocationRelativeTo(null);
22     }
23     public static void main(String[] args){
24         FrameB fb = new FrameB();
25         JPanel panel = new JPanel();
26         URL img = FrameB.class.getResource("Koala.jpg");
27         JButton jbOK = new JButton("OK");
28         JButton jbImg = new JButton(new ImageIcon(img));
29         panel.add(jbOK);
30         panel.add(jbImg);
31         fb.add(panel);
32         fb.setVisible(true);
33     }
34 }
```

Modul 12 (run) running... 26:54 3:50 PM 12/20/2019





12.6. TUGAS

1.

Modul 12 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Modul 12

<default package>

- DemRadioButton.java
- DemoLabel.java
- DemoTextField.java
- FrameA.java
- FrameB.java
- JComboBox.java
- JMenu.java
- Utama.java

Source Packages

Test Packages

Libraries Test Libraries

Navigator Members

Members

Output

Modul 12 (run) #1 Modul 12 (run) #2 Modul 12 (run) #3 Modul 12 (run) #4 Modul 12 (run) #5

Modul 12 (run) #5 running... (more...) | 1:1 INS

3:37 PM 12/20/2019

```
10  */
11  public class JComboBox extends javax.swing.JFrame {
12
13  /**
14   * Creates new form JComboBox
15  */
16  public JComboBox() {
17      super("Tugas 1");
18      initComponents();
19  }
20
21  JComboBox(String sangat_tidak_setuju) {
22      throw new UnsupportedOperationException("Not supported yet."); //To change body of generated methods
23  }
24
25  /**
26   * This method is called from within the constructor to initialize the form.
27   * WARNING: Do NOT modify this code. The content of this method is always
28   * regenerated by the Form Editor.
29  */
30  @SuppressWarnings("unchecked")
31  // Generated Code
32
33  private void jComboBox1ActionPerformed(java.awt.event.ActionEvent evt) {
34      // TODO add your handling code here:
35  }
36
37  /**
38   * @param args the command line arguments
39  */
40  public static void main(String args[]) {
41      /* Set the Nimbus look and feel */
42      // Look and feel setting code (optional)
43
44      /* Create and display the form */
45      java.awt.EventQueue.invokeLater(new Runnable() {
46          public void run() {
47              new JComboBox().setVisible(true);
48          }
49      });
50  }
51
52  // Variables declaration - do not modify
53  private javax.swing.JComboBox<String> jComboBox1;
54  private javax.swing.JLabel jLabel1;
55  private java.awt.Menu menu1;
56  private java.awt.Menu menu2;
57  private java.awtMenuBar menuBar1;
58  // End of variables declaration
59 }
```

Modul 12 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Projects Services

Modul 12

<default package>

- DemRadioButton.java
- DemoLabel.java
- DemoTextField.java
- FrameA.java
- FrameB.java
- JComboBox.java
- JMenu.java
- Utama.java

Source Packages

Test Packages

Libraries Test Libraries

Navigator Members

Members

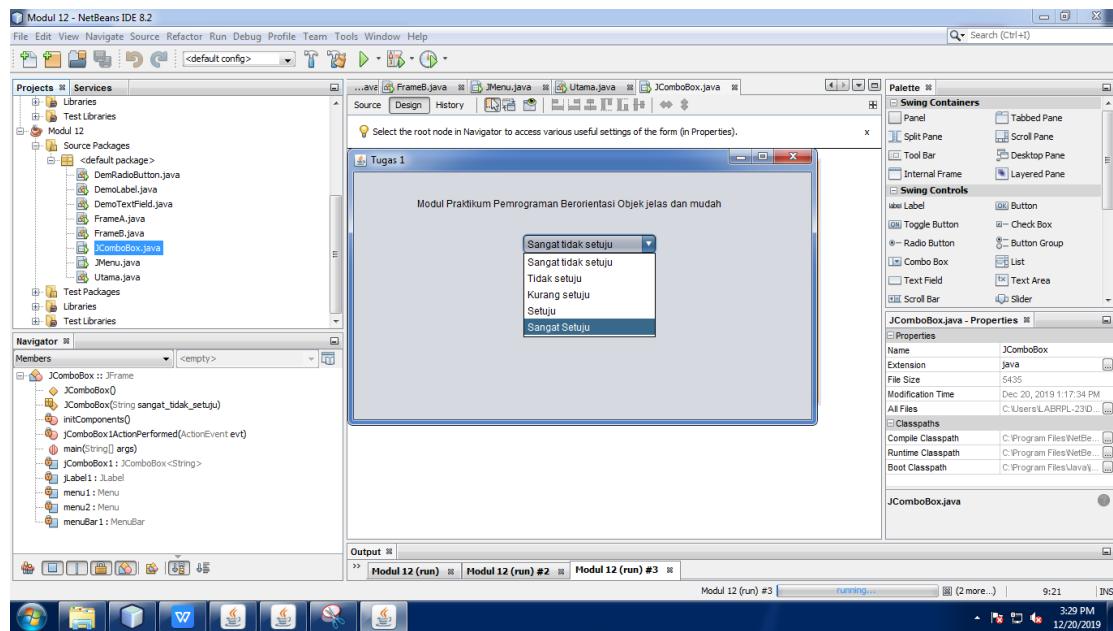
Output

Modul 12 (run) #1 Modul 12 (run) #2 Modul 12 (run) #3 Modul 12 (run) #4 Modul 12 (run) #5

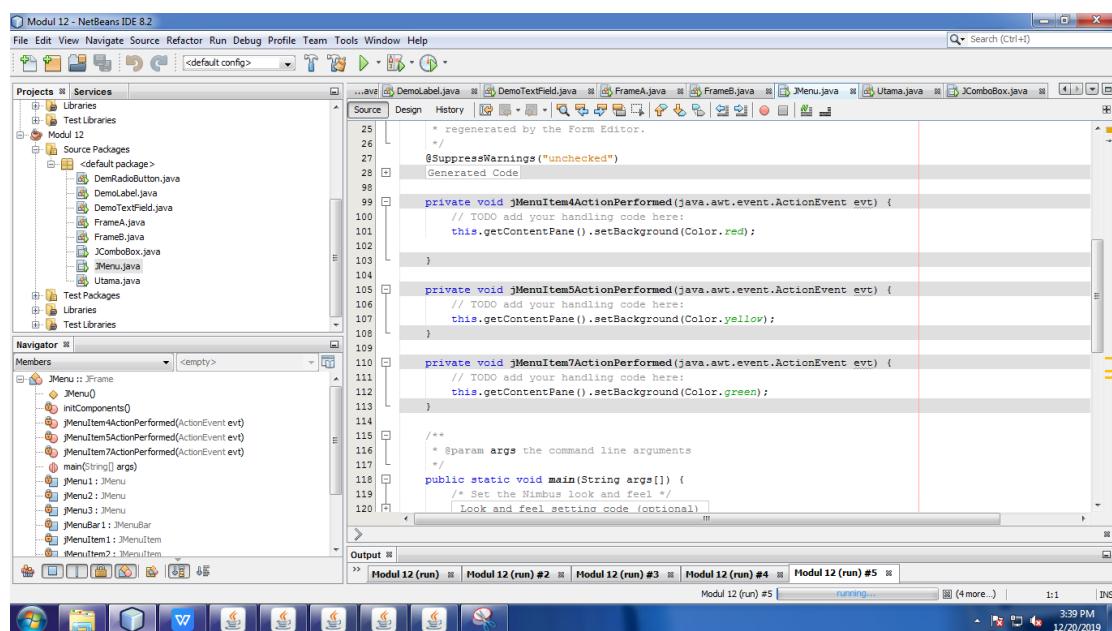
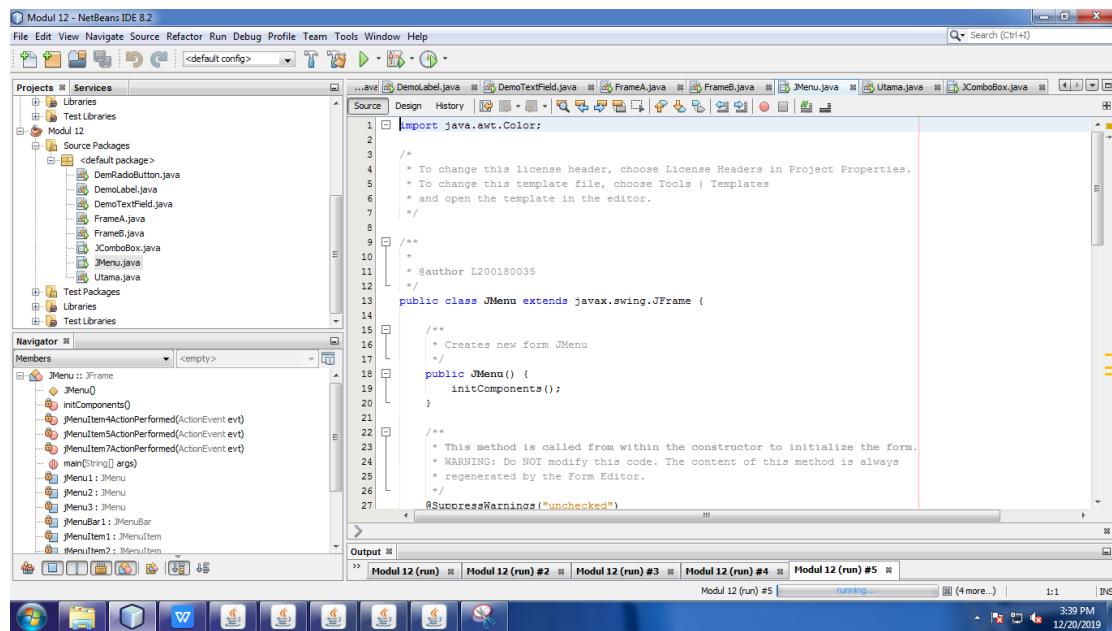
Modul 12 (run) #5 running... (more...) | 1:1 INS

3:38 PM 12/20/2019

```
81      // TODO add your handling code here:
82
83
84  /**
85   * @param args the command line arguments
86  */
87  public static void main(String args[]) {
88      /* Set the Nimbus look and feel */
89      // Look and feel setting code (optional)
90
91      /* Create and display the form */
92      java.awt.EventQueue.invokeLater(new Runnable() {
93          public void run() {
94              new JComboBox().setVisible(true);
95          }
96      });
97  }
98
99  // Variables declaration - do not modify
100 private javax.swing.JComboBox<String> jComboBox1;
101 private javax.swing.JLabel jLabel1;
102 private java.awt.Menu menu1;
103 private java.awt.Menu menu2;
104 private java.awtMenuBar menuBar1;
105 // End of variables declaration
106 }
```



2.



Modul 12 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Services

Modul 12

Source Packages

<default package>

- DemoRadioButton.java
- DemoLabel.java
- DemoTextField.java
- FrameA.java
- FrameB.java
- JComboBox.java
- JMenu.java
- Utama.java

Test Packages

Libraries

Test Libraries

Navigator Members <empty>

Members

Java :: JFrame

- JMenu0
- intComponents()
- JMenuItem1ActionPerformed(ActionEvent evt)
- JMenuItem2ActionPerformed(ActionEvent evt)
- JMenuItem3ActionPerformed(ActionEvent evt)
- JMenuItem4ActionPerformed(ActionEvent evt)
- JMenuItem5ActionPerformed(ActionEvent evt)
- JMenuItem6ActionPerformed(ActionEvent evt)
- JMenuItem7ActionPerformed(ActionEvent evt)
- main(String[] args)
- JMenu1: JMenu
- JMenu2: JMenu
- JMenu3: JMenu
- JMenuBar1: JMenuBar
- JMenuItem1: JMenuItem
- JMenuItem2: JMenuItem

Output

Modul 12 (run) #2 Modul 12 (run) #3 Modul 12 (run) #4 Modul 12 (run) #5

Modul 12 (run) #5 running... 1:1 INS

3:39 PM 12/20/2019

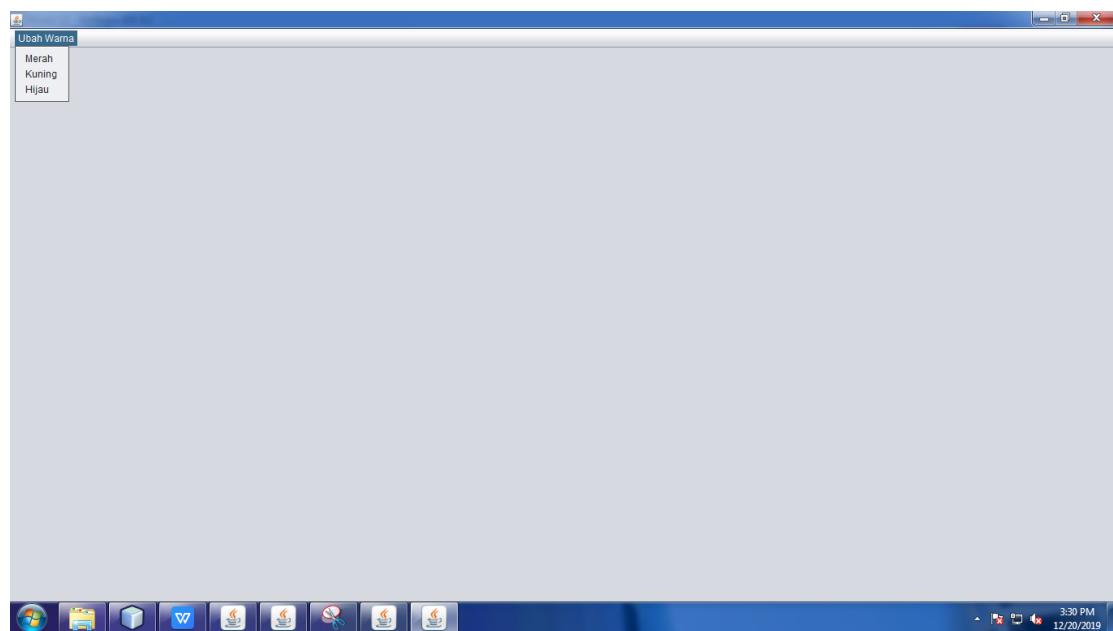
The screenshot shows the NetBeans IDE interface with the title "Modul 12 - NetBeans IDE 8.2". The main window displays a Java file named "JMenu.java" with the following code:

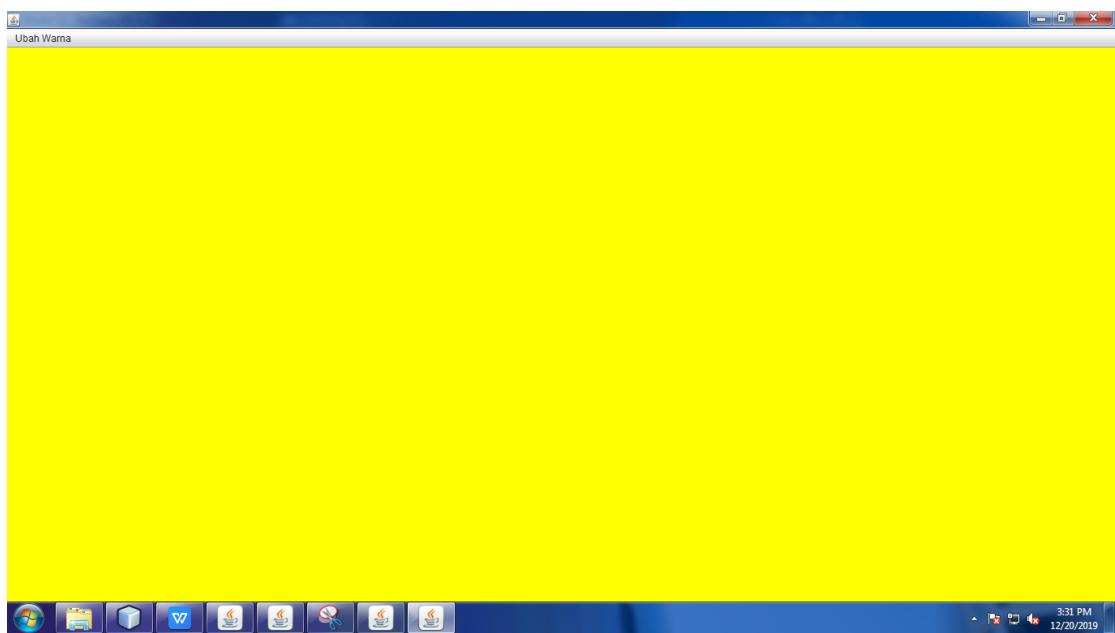
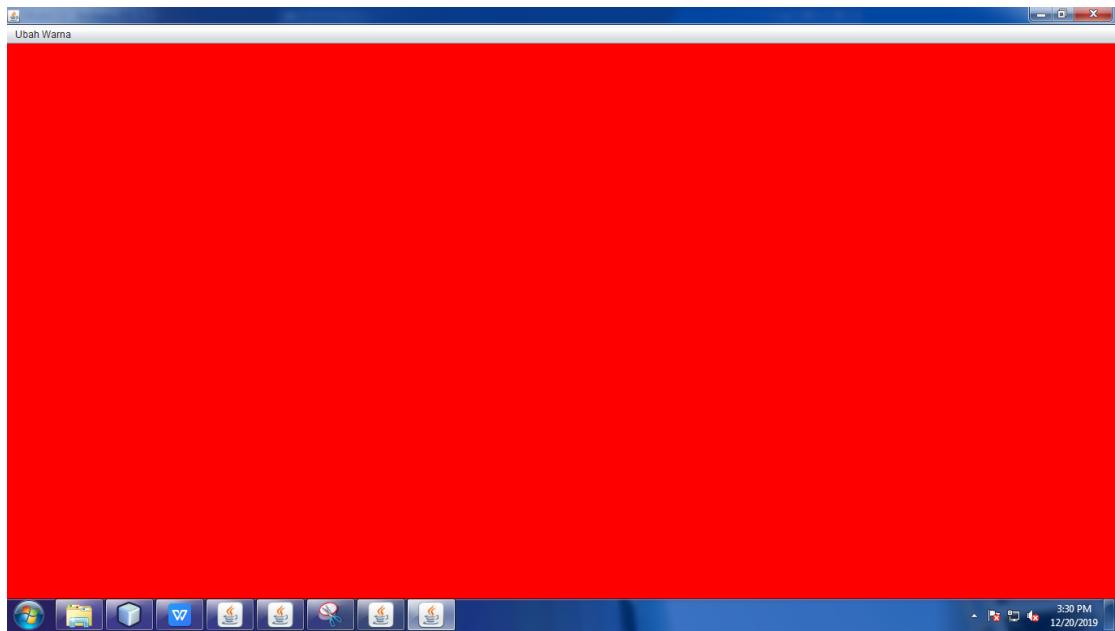
```
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    // Look and feel setting code (optional)

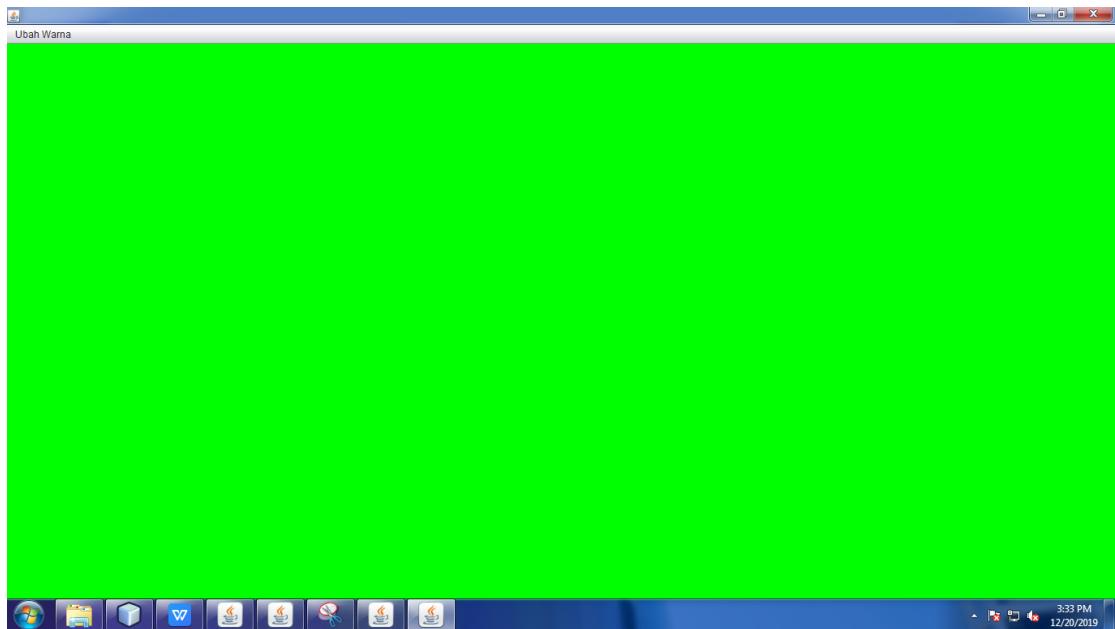
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new JMenu().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JMenu jMenu1;
private javax.swing.JMenu jMenu2;
private javax.swing.JMenu jMenu3;
private javax.swing.JMenuBar jMenuBar1;
private javax.swing.JMenuItem jMenuItem1;
private javax.swing.JMenuItem jMenuItem2;
private javax.swing.JMenuItem jMenuItem3;
private javax.swing.JMenuItem jMenuItem4;
private javax.swing.JMenuItem jMenuItem5;
private javax.swing.JMenuItem jMenuItem6;
private javax.swing.JMenuItem jMenuItem7;
private javax.swing.JPopupMenu jPopupMenu1;
// End of variables declaration
}
```

The Navigator pane shows members of the JFrame class, including various JMenu and JMenuItem instances. The Output pane shows five running threads labeled "Modul 12 (run) #1" through "#5". The status bar at the bottom indicates the time as "3:39 PM" and the date as "12/20/2019".







12.5.1. Frame

b. Lengkapi pengertian implementasi class JFrame pada tabel berikut ini!

Konstruktur	Keterangan
JFrame()	Membuat JFrame tanpa judul
JFrame(String Judul)	Membuat JFrame dengan judul

Metode	Keterangan
void setSize(int lebar, int tinggi)	Menentukan ukuran frame
void setLocation(int x, int y)	Menentukan lokasi frame dihitung dari kiri atas
void setVisible(Boolean)	Menentukan JFrame ditampilkan atau tidak
void setLocationRelativeTo(Component)	Menentukan letak JFrame relative dengan komponen lainnya. Jika diset null, maka JFrame akan ditampilkan di tengah.

12.5.2. Button

b. Lengkapi pengertian implementasi class JButton pada tabel berikut ini!

Konstruktur	Keterangan
JButton()	Membuat JButton tanpa teks maupun icon
JButton(String teks)	Membuat JButton dengan teks
JButton(Icon icon)	Membuat JButton dengan icon
JButton(String teks, Icon icon)	Membuat JButton dengan teks dan icon

12.5.4. Label

- b. Lengkapi pengertian implementasi class JLabel pada table berikut ini

Konstruktur	Keterangan
JLabel (String teks)	Label dengan teks
JLabel (String teks, int i)	Label dengan teks dan alignment (perataan). Terdapat tiga jenis alignment : LEFT, CENTER, dan RIGHT
JLabel (String teks, Icon ic, int i)	Label dengan teks, icon, dan alignment

12.5.5. TextField dan Password Field

- b. Lengkapi pengertian implementasi class JTextField pada tabel di bawah ini.

Konstruktur	Penjelasan
JTextField()	Text field kosong tanpa tulisan
JTextField(int i)	Text field dengan panjang yang ditentukan
JTextField(String i)	Text field dengan teks yang sudah ditentukan
JTextField(String teks, int i)	Text field dengan teks dan Panjang kolom yang sudah ditentukan

Parameter dalam class JTextField	Penjelasan
String Text	Teksi dalam Text field
Boolean Editable	Menentukan bisa tidaknya teks dalam Text field untuk diedit
Int columns	Jumlah kolom pada Text field
Int horizontalAlignment	Perataan horizontal pada Text field

12.5.6. Radio Button dan CheckBox

- b. Lengkapi pengertian implementasi class JCheckBox pada table berikut ini

Konstruktur	Penjelasan
JCheckBox(String teks)	Check box dengan teks yang ditentukan

JCheckBox(String, Boolean)	Check box dengan teks yang ditentukan. jika kondisi pada parameter kedua true,
JCheckBox(icon)	Check box dengan gambar icon
JCheckBox(icon, Boolean)	Check box dengan gambar icon dan terpilih jika true
JCheckBox(String, Icon)	Check box dengan tulisan dan gambar icon
JCheckBox(String, Icon, Boolean)	Check box dengan tulisan dan gambar icon, akan dipilih secara default jika