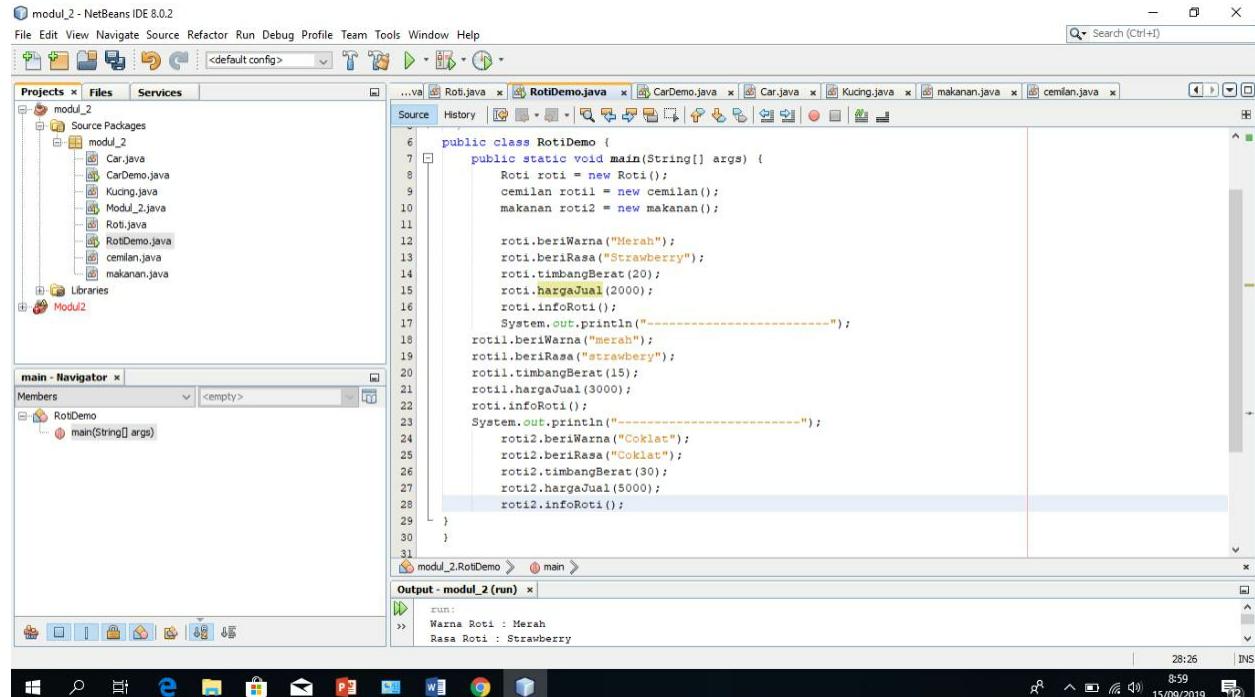


Nama : Dwi Alvian Verry Ajipramana  
NIM : L200180052  
Kelas : B

## Modul 2

### Kegiatan 1.

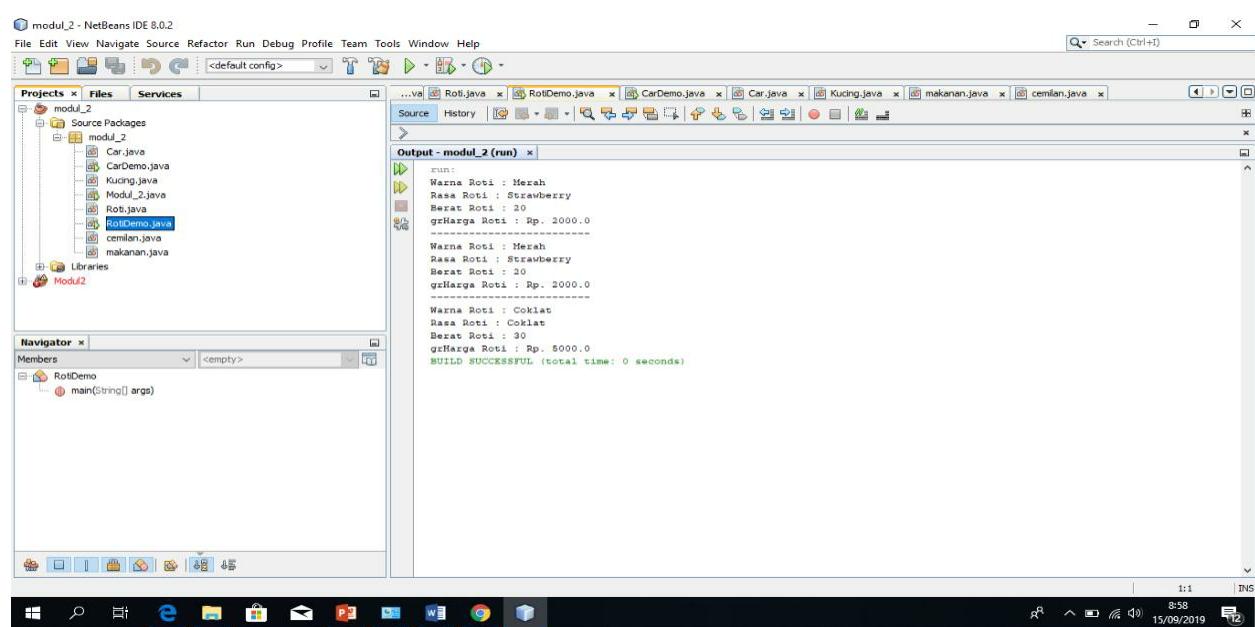


```
public class RotiDemo {
    public static void main(String[] args) {
        Roti roti = new Roti();
        cemilan rotil = new cemilan();
        makanan roti2 = new makanan();

        roti.beriWarna("Merah");
        roti.beriRasa("Strawberry");
        roti.timbangBerat(20);
        roti.hargaJual(2000);
        roti.infoRoti();
        System.out.println("-----");
        rotil.beriWarna("Merah");
        rotil.beriRasa("strawberry");
        rotil.timbangBerat(15);
        rotil.hargaJual(3000);
        rotil.infoRoti();
        System.out.println("-----");
        roti2.beriWarna("Coklat");
        roti2.beriRasa("Coklat");
        roti2.timbangBerat(30);
        roti2.hargaJual(5000);
        roti2.infoRoti();
    }
}
```

tampilan output:

```
run:
>> Warna Roti : Merah
Rasa Roti : Strawberry
-----
```



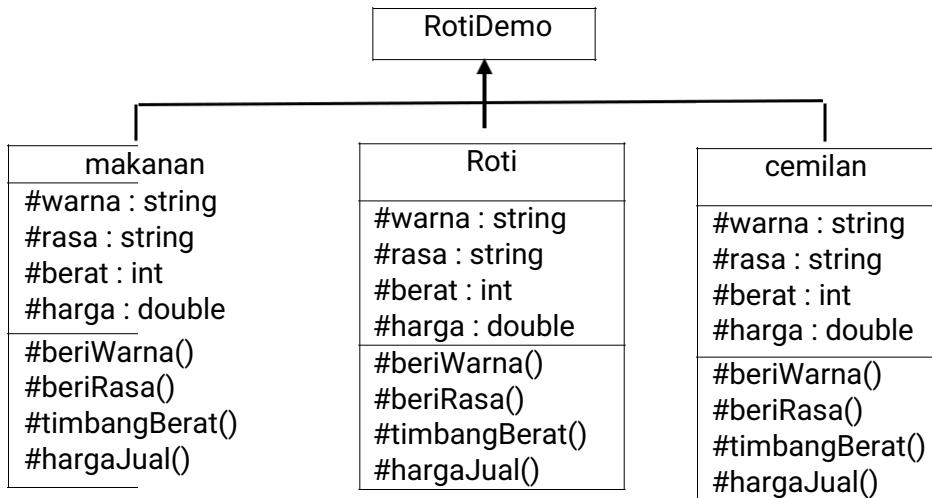
```
public class RotiDemo {
    public static void main(String[] args) {
        Roti roti = new Roti();
        cemilan rotil = new cemilan();
        makanan roti2 = new makanan();

        roti.beriWarna("Merah");
        roti.beriRasa("Strawberry");
        roti.timbangBerat(20);
        roti.hargaJual(2000.0);
        roti.infoRoti();
        System.out.println("-----");
        rotil.beriWarna("Merah");
        rotil.beriRasa("strawberry");
        rotil.timbangBerat(15);
        rotil.hargaJual(3000.0);
        rotil.infoRoti();
        System.out.println("-----");
        roti2.beriWarna("Coklat");
        roti2.beriRasa("Coklat");
        roti2.timbangBerat(30);
        roti2.hargaJual(5000.0);
        roti2.infoRoti();
    }
}
```

tampilan output:

```
run:
>> Warna Roti : Merah
Rasa Roti : Strawberry
Berat Roti : 20
grHarga Roti : Rp. 2000.0
-----
Warna Roti : Merah
Rasa Roti : Coklat
Berat Roti : 30
grHarga Roti : Rp. 5000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

## Kegiatan 2.



## Kegiatan 3.

Screenshot of Eclipse IDE showing the Java code for the Car class and its output in the Console tab.

The code in `Car.java`:

```
1 package Modul2;
2
3 public class Car {
4
5     int changeCadence;
6     int speedup;
7     int changeGear;
8
9
10    void changeCadence(int changecadence) {
11        changeCadence = changecadence;
12    }
13
14    void speedUp(int speedup) {
15        speedup = speedup;
16    }
17
18    void changeGear(int changegear) {
19        changeGear = changegear;
20    }
21
22    void printInfo() {
23        System.out.println(
24            "Gear : " + changeCadence + "\n" +
25            "Speed : " + speedup + "\n" +
26            "Gear : " + changeGear );
27    }
28}
```

The output in the Console tab:

```
<terminated> RotiDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:28:23 AM)
-----
Warna Roti : coklat
Rasa Roti : coklat
Berat Roti : 30gr
Harga Roti : Rp. 5000.0
```

## Kegiatan 4.

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

- Project Explorer:** Shows the project structure with files like RotiDemo.java, Kucing.java, Rekening.java, Car.java, CarDemo.java, and Mahasiswa.java.
- Code Editor:** Displays the Kucing.java code:

```
1 package Modul2;
2
3 public class Kucing {
4     String Warnabulu;
5     int Umur;
6
7     Kucing kucing= new Kucing();
8
9     void Warnabulu(String warnabulu) {
10         Warnabulu = warnabulu;
11     }
12
13     void Umur(int umur) {
14         Umur = umur;
15     }
16
17     void meong() {
18         System.out.println(
19             "Warna Bulu : " + Warnabulu + "\n" +
20             "Umur : " + Umur + "\n" );
21     }
22 }
23
24 }
```
- Outline View:** Shows the class structure: Modul2, Kucing, Warnabulu, Umur, kucing, and methods meong(), Warnabulu(String), Umur(int), and void.
- Console:** Displays the output of the application:

```
Warna Roti : coklat
Rasa Roti : coklat
Berat Roti : 30gr
Harga Roti : Rp. 5000.0
```

## Kegiatan 5.

a).

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

- Project Explorer:** Shows the project structure with files like RotiDemo.java, Kucing.java, Rekening.java, Car.java, CarDemo.java, and Mahasiswa.java.
- Code Editor:** Displays the Rekening.java code:

```
1 package Modul2;
2
3 public class Rekening {
4     double saldo = 0;
5     int no_rekening = 123456789;
6     String nama = "Rohmad Khoirudin";
7
8
9
10    void saldo() {
11        System.out.println(
12            "nama : " + nama + "\n" +
13            "no rekening : " + no_rekening + "\n" +
14            "Saldo : "+saldo
15        );
16    }
17
18    void menabung(double jumlahTabungan) {
19        saldo = saldo + jumlahTabungan;
20        System.out.println("Jumlah Menabung : " + saldo);
21    }
22
23    void menarik(double jumlahTarik) {
24        saldo = saldo - jumlahTarik;
25        System.out.println("Jumlah Tarik : " + saldo);
26    }
27
28    void transfer(double Transfer) {
29        saldo = saldo - Transfer;
30        System.out.println("Jumlah transfer : " + Transfer);
31    }
32
33 }
34 }
```
- Outline View:** Shows the class structure: Modul2, Rekening, saldo, no\_rekening, nama, saldo(), menabung(double), menarik(double), and transfer(double).
- Console:** Displays the output of the application:

```
terminated> RotiDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:28:23 AM)
```

b).

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

- Project Explorer:** Shows the project structure under "Modul2".
- Editor:** Displays the code for `RekeningDemo.java`. The code initializes a `Rekening` object, deposits 500000, withdraws 450000, and transfers 100000, then prints the balance.
- Console:** Shows the output of the program execution, which includes the name (Rohmad Khoirudin), account number (123456789), initial balance (0.0), deposit (500000.0), withdrawal (450000.0), transfer (100000.0), final name (Rohmad Khoirudin), final account number (123456789), and final balance (350000.0).
- Bottom Taskbar:** Shows the Windows taskbar with various application icons.

## Kegiatan 6.

Berikut adalah daftar metode yang didukung oleh kelas String:

- `Char charAt (int index)`
- `int compareTo (Object o)`
- `int compareTo (String anotherString)`
- `int compareTolgnoreCase (String str)`
- `String concat (String str)`
- `contentEquals boolean (StringBuffer sb)`
- `statis String copyValueOf (char [] data)`
- `statis String copyValueOf (char [] data, int offset, int count)`
- `boolean endsWith (String suffix)`
- `boolean equals (Object anObject)`
- `boolean equalsIgnoreCase (String anotherString):`
- `getBytes byte ()`
- `byte [] getBytes (String charsetName)`
- `int hashCode()`
- `int indexOf (int ch)`

- int indexOf (int ch, int fromIndex)
- int indexOf (String str)
- int indexOf (String str, int fromIndex)
- String intern ()
- int lastIndexOf (int ch)
- int lastIndexOf (int ch, int fromIndex)
- int lastIndexOf (String str)
- int panjang ()
- String [] split (String regex)
- String [] split (String regex, batas int)
- boolean startsWith (String prefix, int toffset)
- String substring (int beginIndex)
- String substring (int beginIndex, int endIndex)
- char di [] toCharArray ()
- String toLowerCase ()
- String toLowerCase (lokal Lokal)
- String toString ()
- String toUpperCase ()
- String toUpperCase (lokal Lokal)
- String lis ()
- statis String valueOf (primitif tipe data x)

# Pekerjaan Rumah

1).

Screenshot of Eclipse IDE showing the Hewan.java code. The code defines a class Hewan with methods for setting name, number of legs, food type, and printing information.

```
1 package Modul2;
2
3 public class Hewan {
4     String Nama,Makanan,Type;
5     int jumlahKaki;
6
7     void Nama(String nama) {
8         Nama = nama;
9     }
10    void jumlahKaki(int jumlahkaki) {
11        jumlahKaki = jumlahkaki;
12    }
13    void Makanan(String makanan) {
14        Makanan = makanan;
15    }
16    void Type(String type) {
17        Type = type;
18    }
19    void printInfo() {
20        System.out.println(
21            "Nama Hewan : " + Nama + "\n" +
22            "Jumlah Kaki : " + jumlahKaki + "\n" +
23            "Makanan : " + Makanan + "\n" +
24            "Type Hewan : " + Type );
25    }
26}
27
28
```

The Outline view shows the class structure:

- Hewan
- Nama : String
- Makanan : String
- Type : String
- jumlahKaki : int
- Nama(String) : void
- jumlahKaki(int) : void
- Makanan(String) : void
- Type(String) : void
- printInfo() : void

Screenshot of Eclipse IDE showing the HewanDemo.java code. It creates two Hewan objects and prints their details.

```
1 package Modul2;
2
3 public class HewanDemo {
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6
7         Hewan hewan1 = new Hewan();
8         Hewan hewan2 = new Hewan();
9
10        hewan1.Nama("Harimau");
11        hewan1.jumlahKaki(4);
12        hewan1.Makanan("Daging");
13        hewan1.Type("Karnivora");
14        hewan1.printInfo();
15
16        System.out.println("-----");
17
18        hewan2.Nama("Kerbau");
19        hewan2.jumlahKaki(4);
20        hewan2.Makanan("Rumput");
21        hewan2.Type("Herbivora");
22        hewan2.printInfo();
23    }
24}
```

The Outline view shows the main method:

- HewanDemo
- main(String[]) : void

The Console output shows the printed information:

```
<terminated> HewanDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:35:32 AM)
Nama : Harimau
Jumlah Kaki : 4
makanan : Daging
Type Hewan : Karnivora
-----
Nama Hewan : Kerbau
Jumlah Kaki : 4
makanan : Rumput
Type Hewan : Herbivora
```

2).

eclipse-workspace - Modul2/src/Universitas/Dosen.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
```

Package Explorer Dosen.java Kucing.java \*HewanDemo.java \*Karyawan.java \*Mahasiswa.java

```
1 package Universitas;
2 import java.util.Date;
3 public class Dosen {
4     String nama,pendidikan;
5     int NIK;
6     Date tanggallahir ;
7
8     void tampilanNama(String tampilannama) {
9         nama = tampilannama;
10    }
11
12    void tampilanNIK(int tampilanNik) {
13        NIK = tampilanNik;
14    }
15
16    void tampilanTglLahir(Date Tanggalahir) {
17        tanggallahir = Tanggalahir;
18    }
19
20
21 }
```

Task List Find All Activate...

Outline Dosen

- nama : String
- pendidikan : String
- NIK : int
- tanggallahir : Date
- tampilanNama(String)
- tampilanNIK(int) : void
- tampilanTglLahir(Date) : void

Problems Declaration Console

<terminated> HewanDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:35:32 AM)

```
Nama Hewan : Harimau
Jumlah Kaki : 4
makanan : Daging
Type Hewan : Karnivora
-----
Nama Hewan : Kerbau
Jumlah Kaki : 4
makanan : Rumput
Type Hewan : Herbivora
```

Writable Smart Insert 22:1

Windows Taskbar 8:23 13/09/2019

eclipse-workspace - Modul2/src/Universitas/Karyawan.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
```

Package Explorer Dosen.java Kucing.java \*HewanDemo.java \*Karyawan.java \*Mahasiswa.java

```
1 package Universitas;
2
3 public class Karyawan {
4     String nama,alamat,jabatan;
5     int gaji;
6
7     void tampilanNama(String tampilannama) {
8         nama = tampilannama;
9     }
10
11    void tampilanAlamat(String tampilanalamat) {
12        alamat = tampilanalamat;
13    }
14
15    void tampilanJabatan(String tampilanjabatan) {
16        jabatan = tampilanjabatan;
17    }
18
19    void tampilanGaji(int tampilangaji) {
20        gaji = tampilangaji;
21    }
22 }
```

Task List Find All Activate...

Outline Karyawan

- nama : String
- alamat : String
- jabatan : String
- gaji : int
- tampilanNama(String)
- tampilanAlamat(String)
- tampilanJabatan(String)
- tampilanGaji(int) : void

Problems Declaration Console

<terminated> HewanDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:35:32 AM)

```
Nama Hewan : Harimau
Jumlah Kaki : 4
makanan : Daging
Type Hewan : Karnivora
-----
Nama Hewan : Kerbau
Jumlah Kaki : 4
makanan : Rumput
Type Hewan : Herbivora
```

Writable Smart Insert 19:21

Windows Taskbar 6:21 13/09/2019

eclipse-workspace - Modul2/src/Universitas/Mahasiswa.java - Eclipse IDE

File Edit Source Refactor Navigate Project Run Window Help

Package Explorer     Task List     Find     All     Activat...

JRE System Library [JavaSE-12]

Modul2

HewanDemo.java   Kucing.java   Dosen.java   Karyawan.java   Mahasiswa.java

```
1 package Universitas;
2
3 public class Mahasiswa {
4     String nama,alamat;
5     int semester;
6     int NIM;
7
8     void tampilkanNama(String namaHS) {
9         nama= namaHS;
10    }
11
12
13     void tampilkanNIM(int tampilkanNim) {
14         NIM= tampilkanNim;
15     }
16     void tampilkanAlamat(String tampilkanalamat) {
17         alamat= tampilkanalamat;
18     }
19     void tampilkanSemester(int tampilkansemester) {
20         semester = tampilkansemester;
21     }
22 }
23
24 }
```

Problems   Declaration   Console

<terminated> HewanDemo [Java Application] C:\Program Files\Java\jdk-12.0.2\bin\javaw.exe (Sep 13, 2019, 5:35:32 AM)

```
Nama Hewan : Harimau
Jumlah Kaki : 4
makanan : Daging
Type Hewan : Karnivora
-----
Nama Hewan : Kerbau
Jumlah Kaki : 4
makanan : Rumput
```

Writable   Smart Insert   22:6

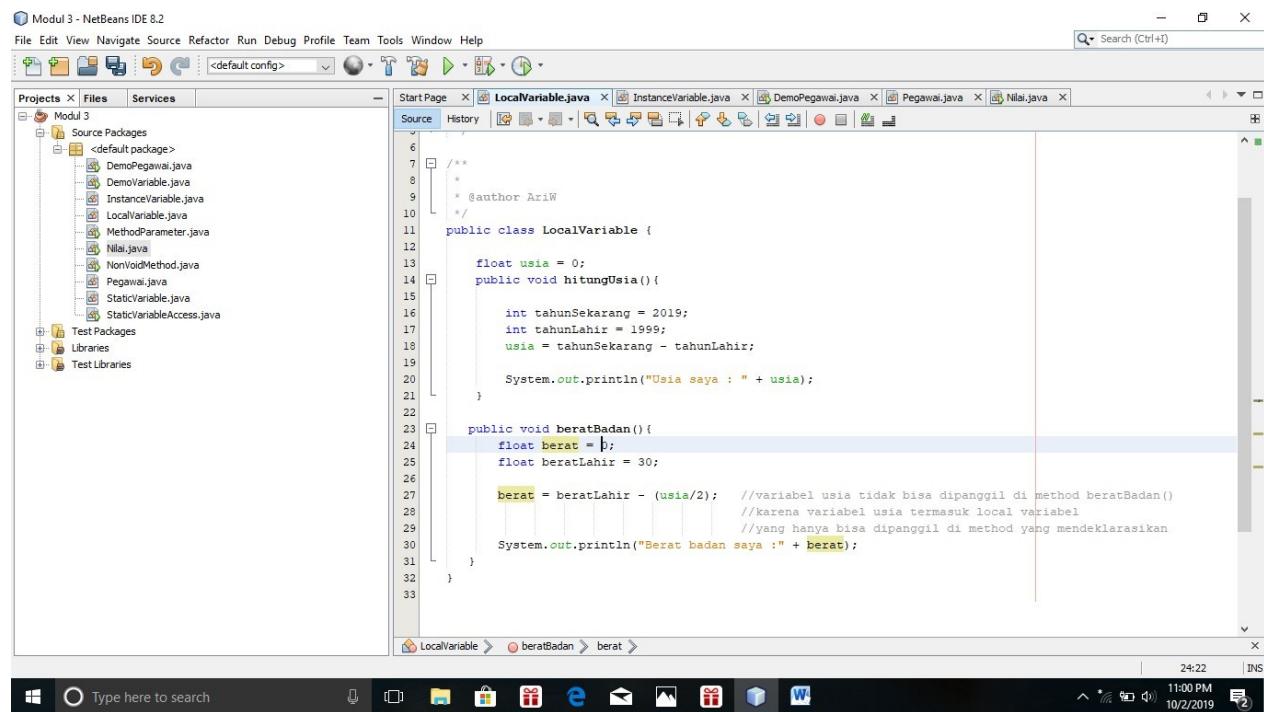
6:25   13/09/2019

NAMA : DWI ALVIAN V.A

NIM : L200180052

KELAS : B

## Latihan 1



The screenshot shows the NetBeans IDE interface with the title "Modul 3 - NetBeans IDE 8.2". The left sidebar displays the project structure under "Modul 3" with several source packages and files listed. The main editor window shows the code for the "LocalVariable.java" file. The code defines a class "LocalVariable" with two methods: "hitungUsia()" and "beratBadan()". The "beratBadan()" method contains a line of code where a local variable "berat" is used, which is highlighted in blue. A tooltip or comment above this line states: "variabel usia tidak bisa dipanggil di method beratBadan() //karena variabel usia termasuk local variabel //yang hanya bisa dipanggil di method yang mendeklarasikan". The status bar at the bottom right shows the time as 11:00 PM and the date as 10/2/2019.

```
6  /*
7  *
8  * @author AriW
9  */
10 public class LocalVariable {
11
12     float usia = 0;
13
14     public void hitungUsia(){
15
16         int tahunSekarang = 2019;
17         int tahunLahir = 1999;
18         usia = tahunSekarang - tahunLahir;
19
20         System.out.println("Usia saya : " + usia);
21     }
22
23     public void beratBadan(){
24         float berat = 0;
25         float beratLahir = 30;
26
27         berat = beratLahir - (usia/2); //variabel usia tidak bisa dipanggil di method beratBadan()
28                                         //karena variabel usia termasuk local variabel
29                                         //yang hanya bisa dipanggil di method yang mendeklarasikan
30         System.out.println("Berat badan saya :" + berat);
31     }
32 }
33
```

## Latihan 2

Modul 3 - NetBeans IDE 8.2

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

Projects Files Services

Start Page LocalVariable.java InstanceVariable.java DemoPegawai.java Pegawai.java Nilaи.java

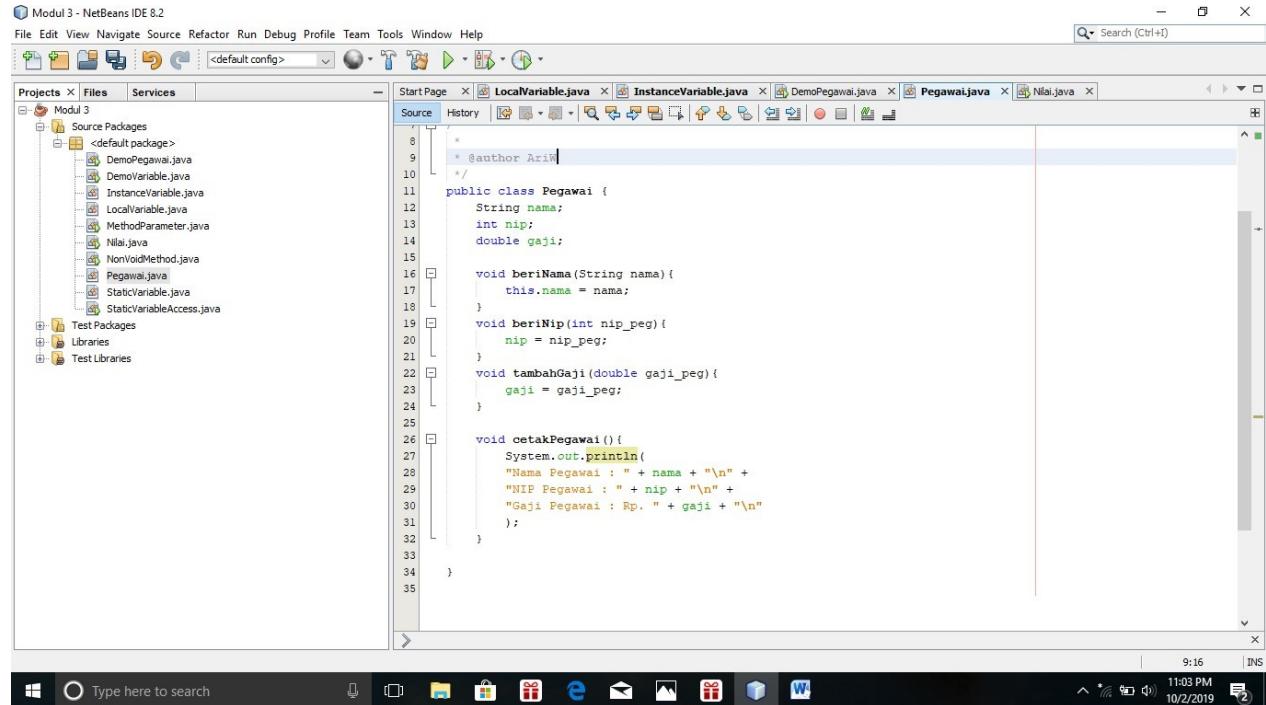
Source History

```
8 * @author Willi
9 */
10 public class InstanceVariable {
11
12     float usia = 0;
13
14     public void hitungUsia(){
15         int tahunSekarang = 2019;
16         int tahunLahir = 1999;
17         usia = tahunSekarang - tahunLahir;
18
19         System.out.println("Usia saya : " + usia);
20     }
21
22     public void beratBadan(){
23         float berat =0;
24         float beratLahir = 30;
25
26         berat = beratLahir - (usia/2);
27         System.out.println("Berat badan saya :" + berat);
28     }
29
30 }
31
```

InstanceVariable > beratBadan > berat

24:21 11:01 PM 10/2/2019

## Latihan 3

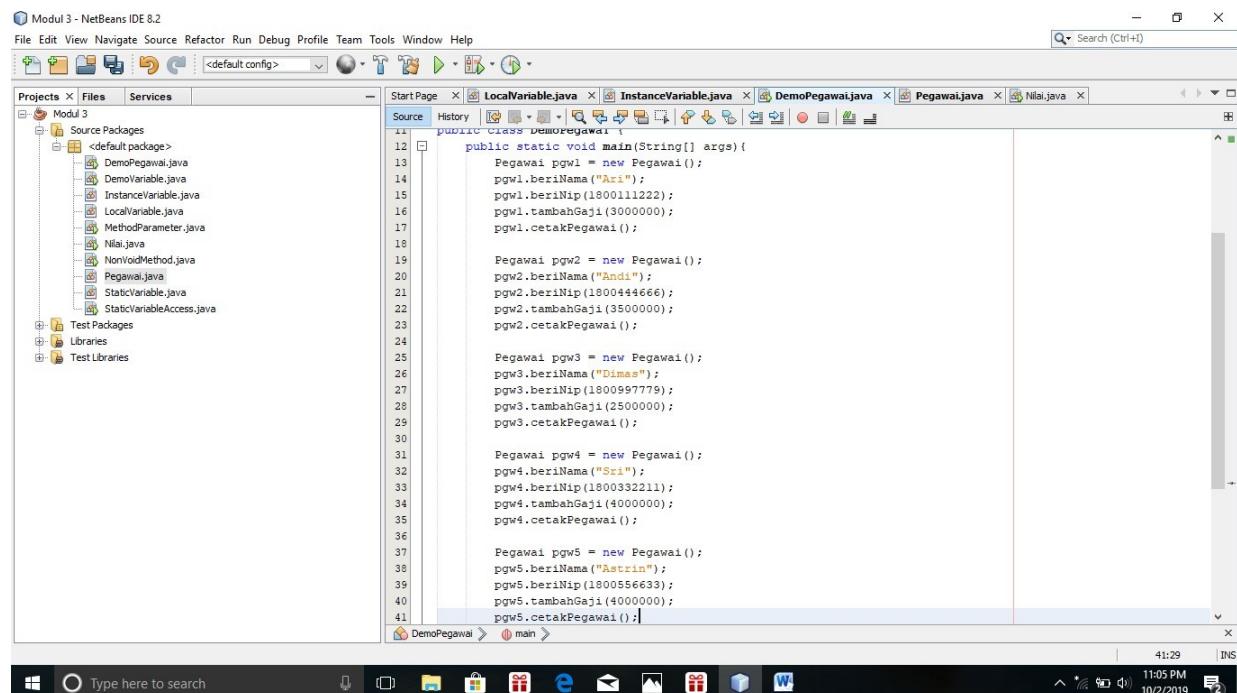


The screenshot shows the NetBeans IDE interface with the title "Modul 3 - NetBeans IDE 8.2". The left pane displays the project structure under "Modul 3" with files like LocalVariable.java, InstanceVariable.java, DemoPegawai.java, etc. The right pane shows the code editor for the Pegawai.java file. The code defines a Pegawai class with methods for setting name and NIP, adding salary, and printing details.

```
* @author Arib
*/
public class Pegawai {
    String nama;
    int nip;
    double gaji;

    void beriNama(String nama){
        this.nama = nama;
    }
    void beriNip(int nip_peg){
        nip = nip_peg;
    }
    void tambahGaji(double gaji_peg){
        gaji = gaji_peg;
    }

    void cetakPegawai(){
        System.out.println(
            "Nama Pegawai : " + nama + "\n" +
            "NIP Pegawai : " + nip + "\n" +
            "Gaji Pegawai : Rp. " + gaji + "\n"
        );
    }
}
```



The screenshot shows the NetBeans IDE interface with the title "Modul 3 - NetBeans IDE 8.2". The left pane displays the project structure under "Modul 3" with files like LocalVariable.java, InstanceVariable.java, DemoPegawai.java, etc. The right pane shows the code editor for the DemoPegawai.java file. The code contains a main method that creates multiple Pegawai objects and calls their methods.

```
public class DemoPegawai {
    public static void main(String[] args) {
        Pegawai pgw1 = new Pegawai();
        pgw1.beriNama("Ari");
        pgw1.beriNip(1800111222);
        pgw1.tambahGaji(3000000);
        pgw1.cetakPegawai();

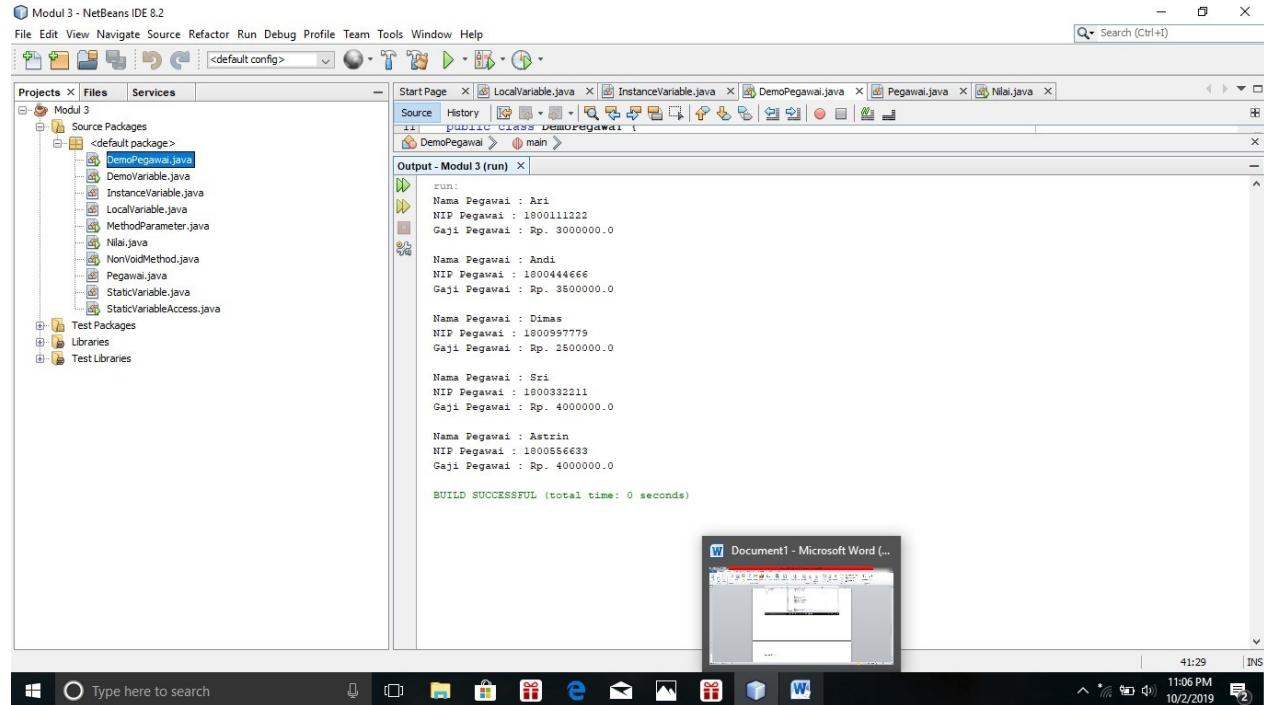
        Pegawai pgw2 = new Pegawai();
        pgw2.beriNama("Andi");
        pgw2.beriNip(1800444666);
        pgw2.tambahGaji(3500000);
        pgw2.cetakPegawai();

        Pegawai pgw3 = new Pegawai();
        pgw3.beriNama("Dimas");
        pgw3.beriNip(1800997779);
        pgw3.tambahGaji(2500000);
        pgw3.cetakPegawai();

        Pegawai pgw4 = new Pegawai();
        pgw4.beriNama("Siti");
        pgw4.beriNip(1800332211);
        pgw4.tambahGaji(4000000);
        pgw4.cetakPegawai();

        Pegawai pgw5 = new Pegawai();
        pgw5.beriNama("Astrin");
        pgw5.beriNip(1800556633);
        pgw5.tambahGaji(4000000);
        pgw5.cetakPegawai();
    }
}
```

## Hasil dari latihan 3



```
run:
  Name Pegawai : Ari
  NIP Pegawai : 1800111222
  Gaji Pegawai : Rp. 3000000.0

  Name Pegawai : Andi
  NIP Pegawai : 1800444666
  Gaji Pegawai : Rp. 3500000.0

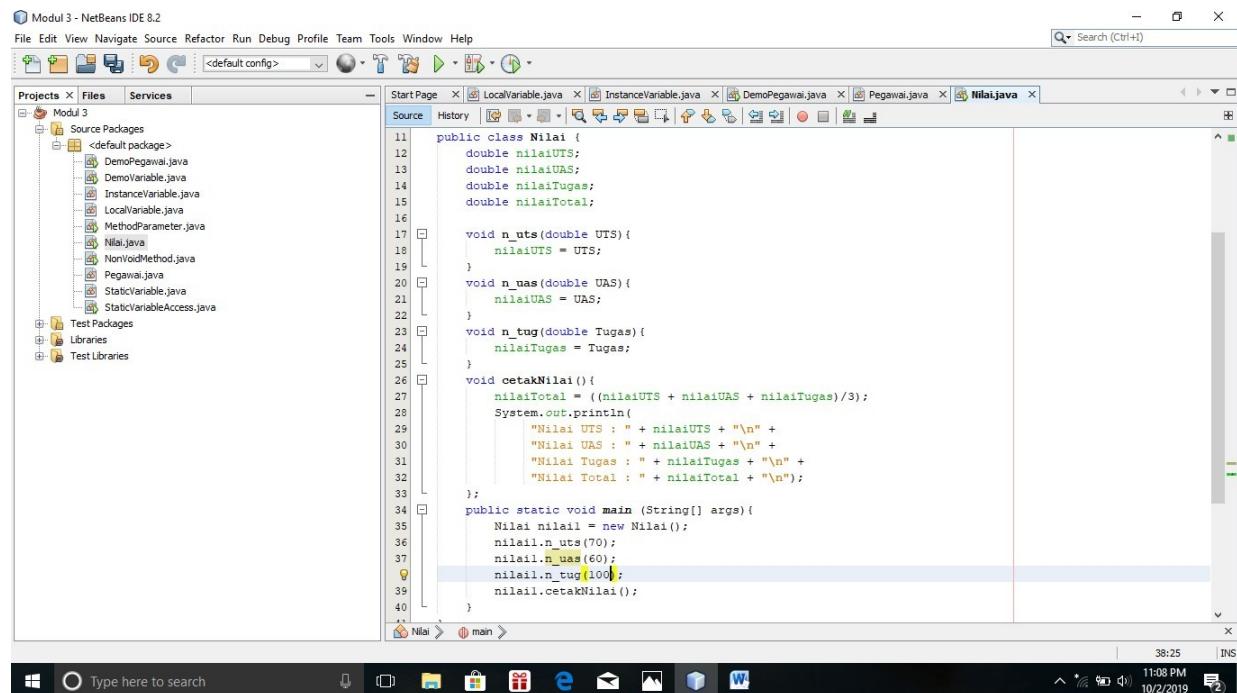
  Name Pegawai : Dimas
  NIP Pegawai : 1800997779
  Gaji Pegawai : Rp. 2500000.0

  Name Pegawai : Sri
  NIP Pegawai : 1800332211
  Gaji Pegawai : Rp. 4000000.0

  Name Pegawai : Astrin
  NIP Pegawai : 1800556633
  Gaji Pegawai : Rp. 4000000.0

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

## Tugas Pekerjaan Rumah



```
public class Nilai {
    double nilaiUTS;
    double nilaiUAS;
    double nilaiTugas;
    double nilaiTotal;

    void n_uts(double UTS) {
        nilaiUTS = UTS;
    }
    void n_uas(double UAS) {
        nilaiUAS = UAS;
    }
    void n_tug(double Tugas) {
        nilaiTugas = Tugas;
    }

    void cetakNilai() {
        nilaiTotal = ((nilaiUTS + nilaiUAS + nilaiTugas)/3);
        System.out.println(
            "Nilai UTS : " + nilaiUTS + "\n" +
            "Nilai UAS : " + nilaiUAS + "\n" +
            "Nilai Tugas : " + nilaiTugas + "\n" +
            "Nilai Total : " + nilaiTotal + "\n");
    }
}

public static void main (String[] args){
    Nilai nilail = new Nilai();
    nilail.n_uts(70);
    nilail.n_uas(60);
    nilail.n_tug(100);
    nilail.cetakNilai();
}
```

## Hasilnya

Modul 3 - NetBeans IDE 8.2

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

Projects Files Services

Modul 3

Source Packages <default package>

- DemoPegawai.java
- DemoVariable.java
- InstanceVariable.java
- LocalVariable.java
- MethodParameter.java
- Nilai.java
- NonVoidMethod.java
- Pegawai.java
- StaticVariable.java
- StaticVariableAccess.java

Test Packages Libraries Test Libraries

Start Page LocalVariable.java InstanceVariable.java DemoPegawai.java Pegawai.java Nilai.java

Source History

Output - Modul 3 (run)

```
run:
Nilai UTS : 70.0
Nilai UAS : 60.0
Nilai Tugas : 100.0
Nilai Total : 76.66666666666667

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

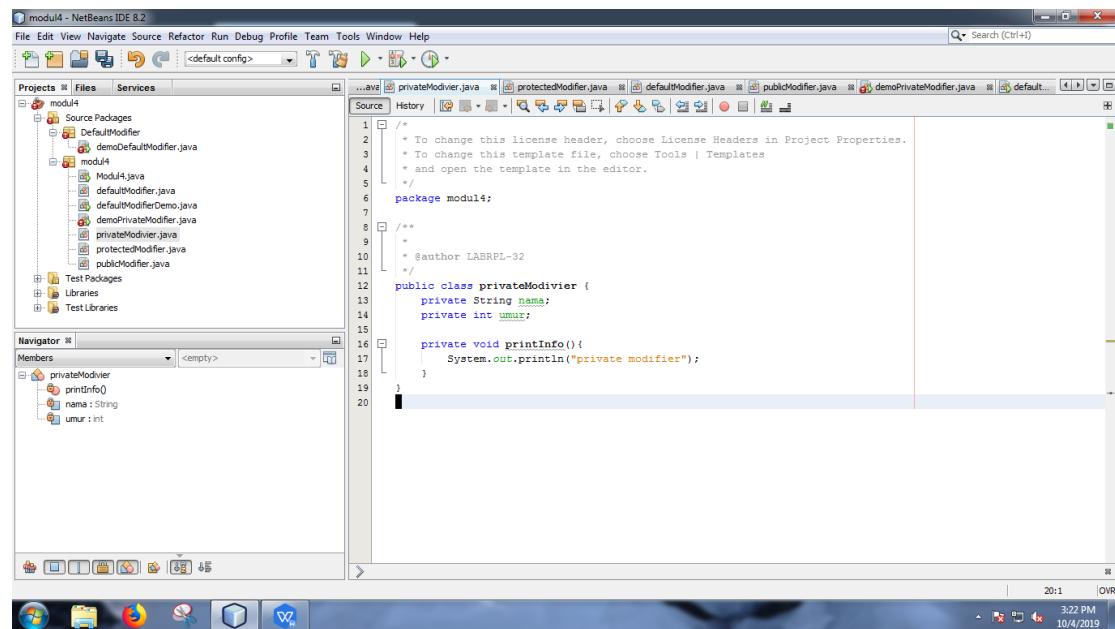
38:25 11:10 PM 10/2/2019

NAMA : DWI ALVIAN V.A

NIM : L200180052

KELAS : B

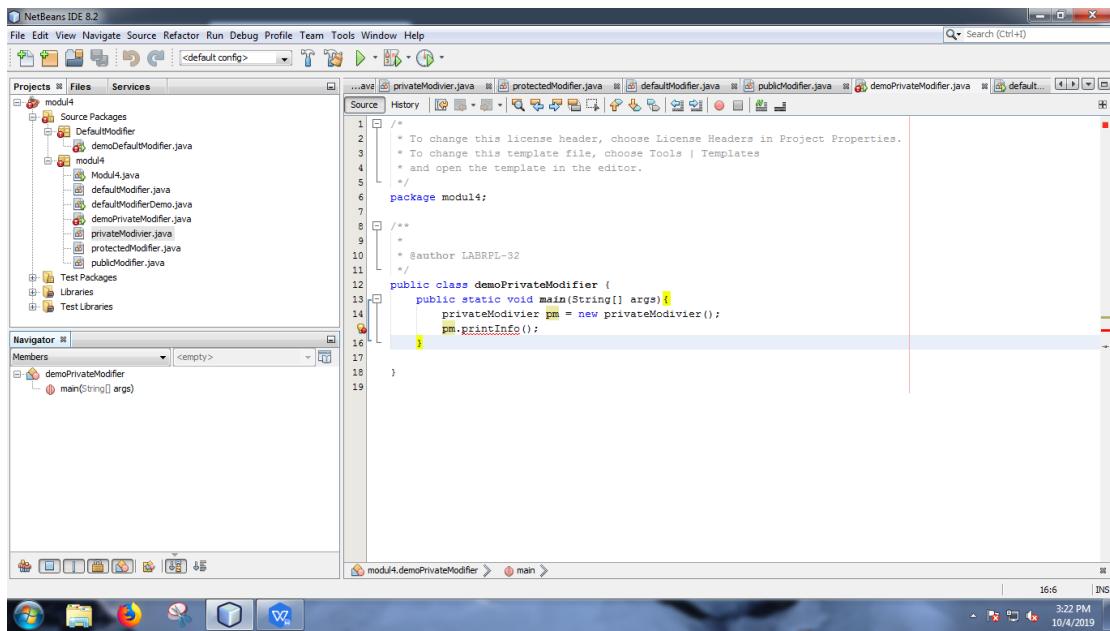
## PRIVATE MODIFIER



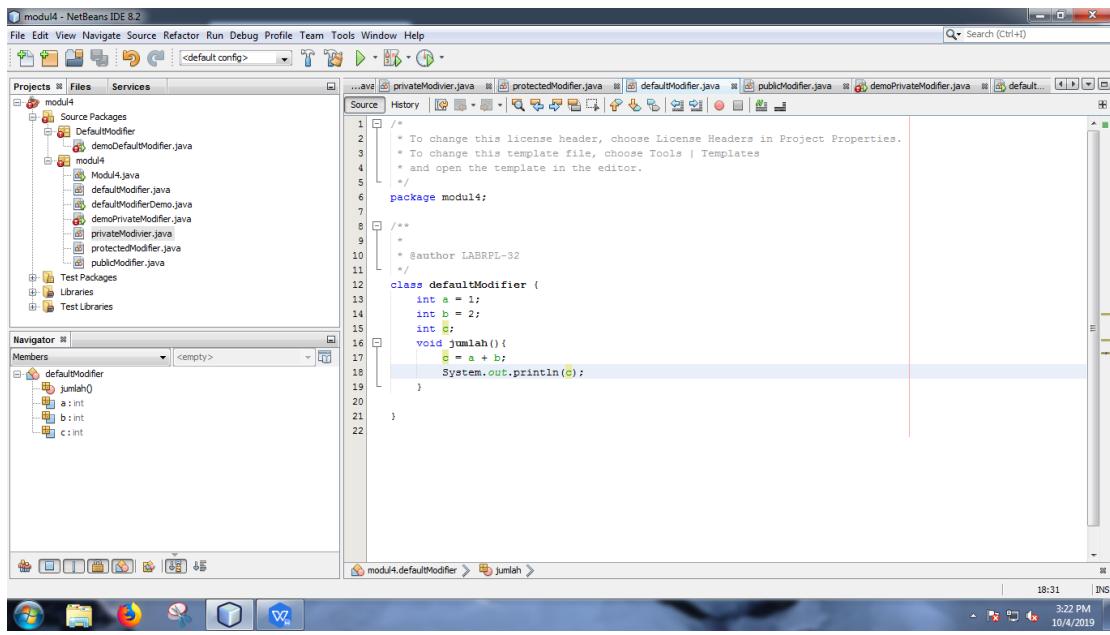
The screenshot shows the NetBeans IDE interface with the following details:

- Project:** modul4
- Source Packages:** modul4 contains several Java files: DefaultModifier, demoDefaultModifier.java, Modul4.java, defaultModifier.java, defaultModifierDemo.java, demoPrivateModifier.java, privateModifier.java, protectedModifier.java, and publicModifier.java.
- File:** privateModifier.java is open in the editor.
- Code:** The code defines a class named privateModivier with private attributes nama and umur, and a private method printInfo().
- Navigator:** Shows the members of the privateModivier class: printInfo(), nama, and umur.
- Bottom Status:** Shows the system tray and taskbar with the date and time (10/4/2019, 3:22 PM).

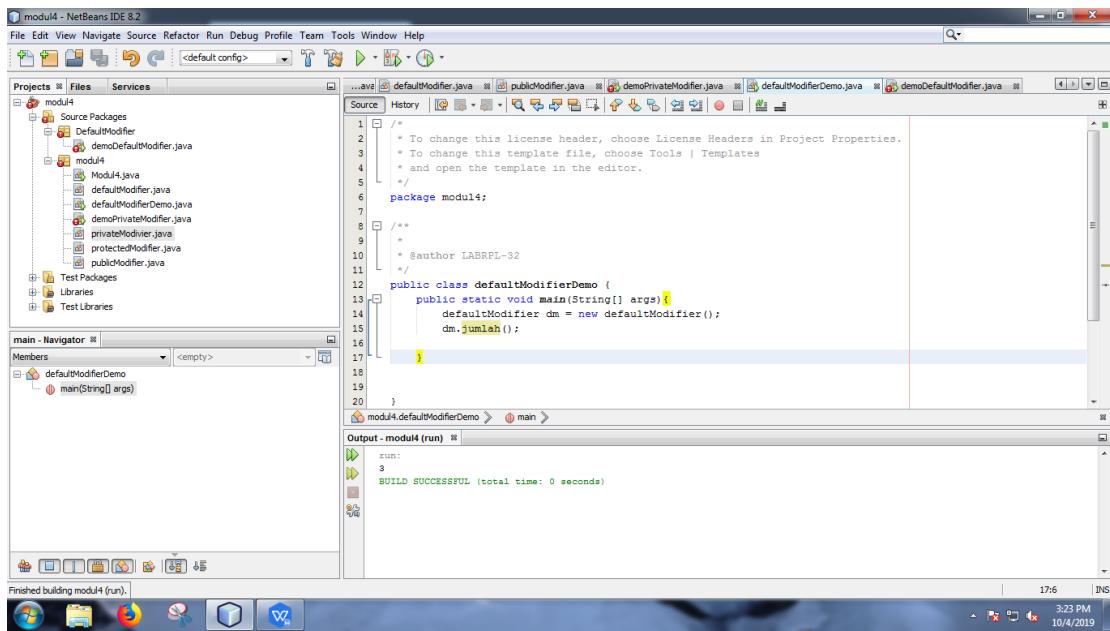
Tidak dapat diakses, hanya dapat diakses didalam package dan class yang sama.



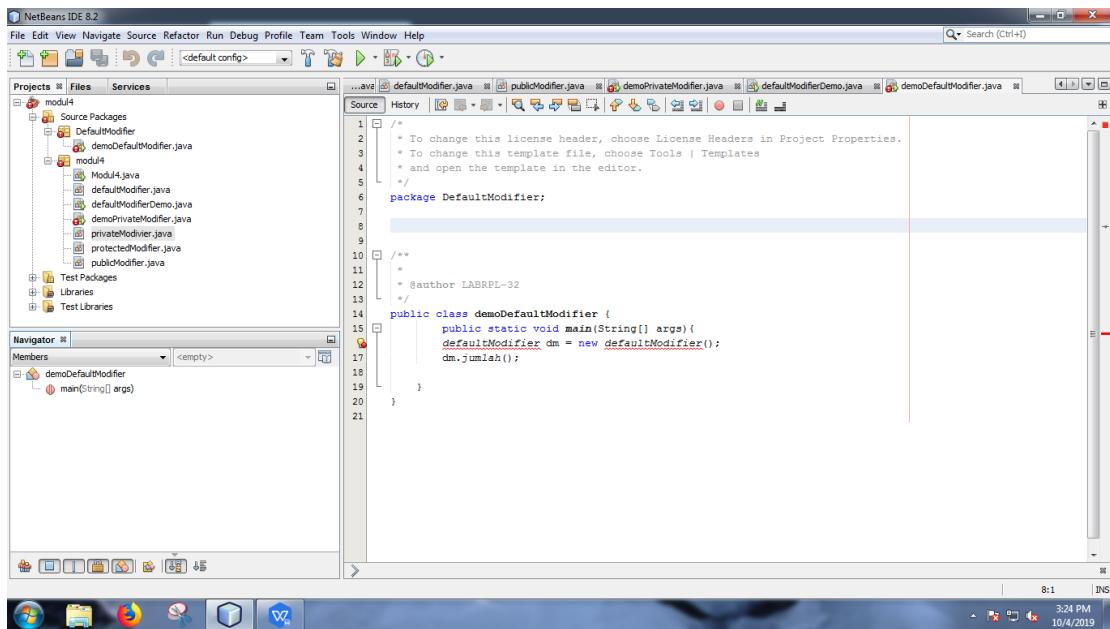
## DEFAULT MODIFIER



1. )



2. ) Tidak bisa diakses karena Default Modifier dapat diakses di class yang berbeda namun dalam package yang sama



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

- Projects:** modul4
- Source Packages:** DefaultModifier (containing demoDefaultModifier.java), modul4 (containing Modul4.java, defaultModifier.java, defaultModifierDemo.java, demoPrivateModifier.java, privateModifier.java, protectedModifier.java, publicModifier.java).
- Navigator:** Members - demoDefaultModifier (main(String[] args))
- Code Editor:** Source tab for demoDefaultModifier.java. The code is as follows:

```
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 DefaultModifier;
7
8 /**
9  * @author LABRPL-32
10 */
11
12 public class demoDefaultModifier {
13     /**
14      * @param args
15      */
16     public static void main(String[] args) {
17         defaultModifier dm = new defaultModifier();
18         dm.jumlah();
19     }
20 }
21
```

## PROTECTED MODIFIER

modul4 - NetBeans IDE 8.2

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

Projects Files Services

Source Packages

modul4

Module4.java

demoDefaultModifier.java

protectedModifier.java

defaultModifier.java

demoProtectedModifier.java

demoPrivateModifier.java

privateModifier.java

publicModifier.java

Test Packages

Libraries

Test Libraries

Navigator

Members

protectedModifier

printInfo()

sendMessage()

Source History

...java protectedModifier.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 modul4;
7
8 /**
9  *
10 * @author LABRPL-32
11 */
12 public class protectedModifier {
13     protected void printInfo(){
14         System.out.println("Protected Modifier");
15     }
16     protected void sendMessage(){
17         System.out.println("this is message");
18     }
19 }
20
```

modul4.protectedModifier > sendMessage >

17:47 3:27 PM 10/4/2019

modul4 - NetBeans IDE 8.2

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

Projects Files Services

Source Packages

modul4

DefaultModifier

demoDefaultModifier.java

modul4

Module4.java

defaultModifier.java

demoProtectedModifier.java

demoPrivateModifier.java

demoPublicModifier.java

privateModifier.java

protectedModifier.java

publicModifier.java

Test Packages

Libraries

main - Navigator

Members

demoProtectedModifier

main(String[] args)

Source History

...java defaultModifierDemo.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 modul4;
7
8 /**
9  *
10 * @author LABRPL-32
11 */
12 public class demoProtectedModifier {
13     public static void main(String[] args){
14         protectedModifier pro = new protectedModifier();
15         pro.printInfo();
16         pro.sendMessage();
17     }
18 }
19
20
```

modul4.demoProtectedModifier > main >

Output - modul4 (run) \*

run:

Protected Modifier

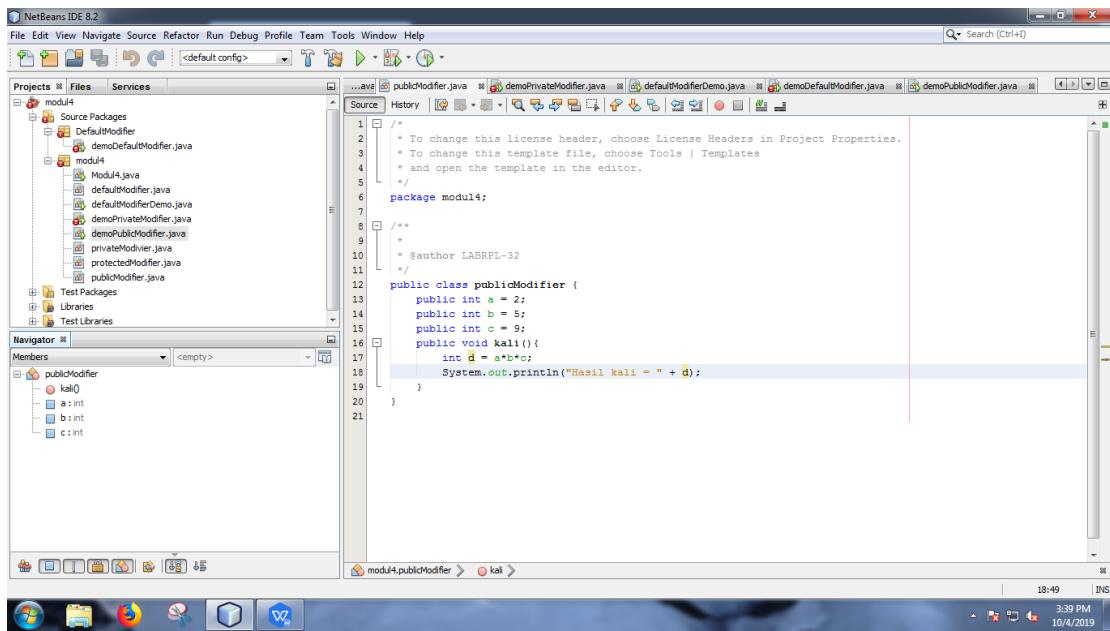
this is message

BUILD SUCCESSFUL (total time: 0 seconds)

16:27 3:52 PM 10/4/2019

## PUBLIC MODIFIER

Kali



## 1.)Kali

modul4 - NetBeans IDE 8.2

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

Projects Files Services

Source Packages

- DefaultModifier
- modul4
- Modul4.java
- defaultModifier.java
- defaultModifierDemo.java
- demoPrivateModifier.java
- demoPublicModifier.java
- privateModifier.java
- protectedModifier.java
- publicModifier.java

Test Packages

Libraries

Test Libraries

Navigator

Members

demoPublicModifier

- main(String[] args)

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   package modul4;
7
8   /**
9    *
10   * @author LABRPL-32
11   */
12  public class demoPublicModifier {
13      public static void main(String[] args){
14          publicModifier pp = new PublicModifier();
15          pp.kali();
16      }
17  }

```

modul4.demoPublicModifier > main >

Output - modul4 (run) :

```

run:
Hasil kali = 90
BUILD SUCCESSFUL (total time: 0 seconds)

```

Finished building modul4 (run).

15:16 3:40 PM 10/4/2019

## 2.)Tambah, kurang, bagi, Rata rata

NetBeans IDE 8.2

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

Projects Files Services

Source Packages

- DefaultModifier
- modul4
- Modul4.java
- defaultModifier.java
- defaultModifierDemo.java
- demoPrivateModifier.java
- demoPublicModifier.java
- privateModifier.java
- protectedModifier.java
- publicModifier.java

Test Packages

Libraries

Test Libraries

Navigator

Members

publicModifier

- bagi0
- kali0
- kurang0
- ratarata0
- tambah0
- a : int
- b : int
- c : int

Source

```

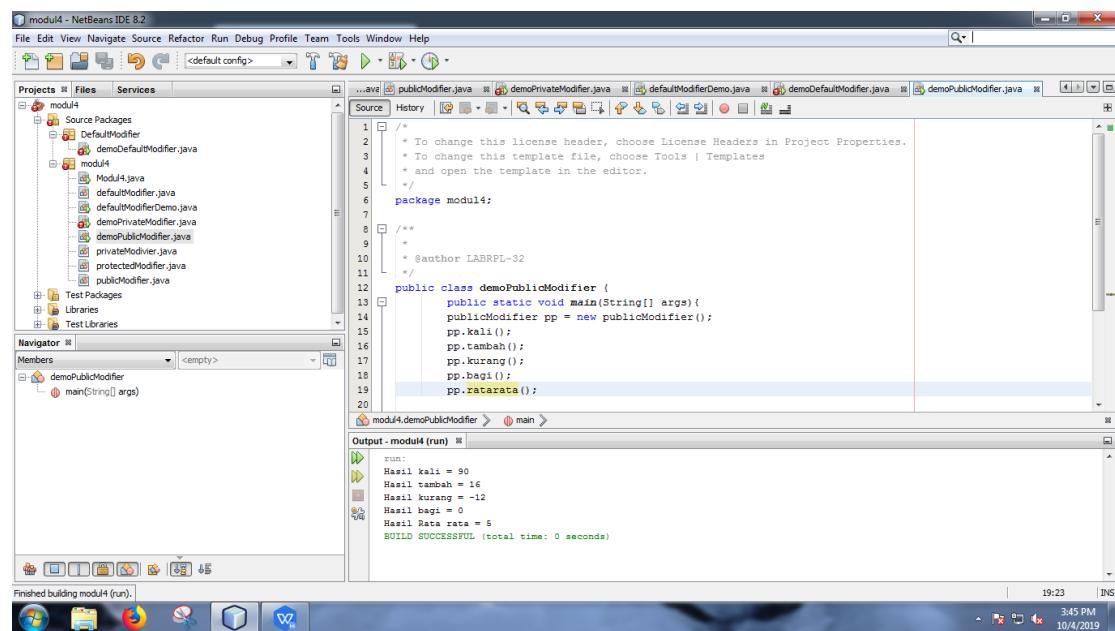
8 /**
9  * @author LABRPL-32
10 */
11
12 public class publicModifier {
13     public int a = 2;
14     public int b = 5;
15     public int c = 9;
16     public void kali(){
17         int d = a*b*c;
18         System.out.println("Hasil kali = " + d);
19     }
20     public void tambah(){
21         int d = a+b+c;
22         System.out.println("Hasil tambah = " + d);
23     }
24     public void kurang(){
25         int d = a-b-c;
26         System.out.println("Hasil kurang = " + d);
27     }
28     public void bagi(){
29         int d = a/b/c;
30         System.out.println("Hasil bagi = " + d);
31     }
32     public void ratarata(){
33         int d = (a+b+c)/3;
34         System.out.println("Hasil Rata rata = " + d);
35     }
36 }

```

modul4.publicModifier > ratarata >

34:44 3:45 PM 10/4/2019

## Hasil



The screenshot shows the NetBeans IDE 8.2 interface with the following details:

- Project:** modul4
- Source Packages:** DefaultModifier, modul4 (containing Modul4.java, defaultModifier.java, defaultModifierDemo.java, demoPrivateModifier.java, demoPublicModifier.java, privateModifier.java, protectedModifier.java, publicModifier.java)
- Files:** demoDefaultModifier.java, demoPrivateModifier.java, defaultModifierDemo.java, demoDefaultModifier.java, demoPublicModifier.java
- Navigator:** Members: demoPublicModifier, main(String[] args)
- Editor:** demoPublicModifier.java (highlighted line: pp.ratarata();)
- Output:** modul4 (run)
  - Hasil kali = 90
  - Hasil tambah = 16
  - Hasil kurang = -12
  - Hasil bagi = 0
  - Hasil Rata rata = 5BUILD SUCCESSFUL (total time: 0 seconds)
- Status Bar:** 19:23, 3:45 PM, 10/4/2019

NAMA : Dwi Alvian Verry A  
NIM : L200180052  
Kelas : B

## DEFAULT CONSTRUCTOR

modul 5 - NetBeans IDE 8.2

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

Projects Files Services

...agi Modul5.java defaultConstructor.java DCConstructorAccess.java Lathan1.java Lathan1Access.java ParameterizedConstr...

Search (Ctrl+F)

Source History

Modul5.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 modul.pkg5;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class defaultConstructor {
13     public defaultConstructor(){
14         System.out.println("Default Constructor");
15     }
16 }
```

Navigator

Members <empty>

defaultConstructor

Output

modul 5 - NetBeans IDE 8.2

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

Projects Files Services

...agi Modul5.java defaultConstructor.java DCConstructorAccess.java Lathan1.java Lathan1Access.java ParameterizedConstr...

Search (Ctrl+F)

Source History

DCConstructorAccess.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 modul.pkg5;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class DCConstructorAccess {
13     public static void main(String[] args){
14         defaultConstructor dc = new defaultConstructor();
15     }
16 }
```

Navigator

Members <empty>

DCConstructorAccess

main(String[] args)

Output - modul 5 (run)

run:

Default Constructor

BUILD SUCCESSFUL (total time: 0 seconds)

Output Finished building modul 5 (run).

# LATIHAN 1

The screenshot shows the NetBeans IDE interface with two Java files open:

**Lathan1.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 modul.pkg5;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class Lathan1 {
13     String nama = "Dwi Alvian Verry Ajipramana";
14     String NIM = "L200180052";
15     String alamat = "Kaliijambe, Sragen";
16     public Lathan1(){
17         System.out.println("Nama = " + nama);
18         System.out.println("NIM = " + NIM);
19         System.out.println("Alamat = " + alamat);
20     }
21 }
22 }
```

**Lathan1Access.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 modul.pkg5;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class Lathan1Access {
13     public static void main(String[] args){
14         Lathan1 lati = new Lathan1();
15     }
16 }
17 }
```

The Output window shows the results of running the application:

```
run:
Nama = Dwi Alvian Verry Ajipramana
NIM = L200180052
Alamat = Kaliijambe, Sragen
BUILD SUCCESSFUL (total time: 0 seconds)
```

## PARAMETERIZED CONSTRUCTOR

```
modul 5 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...ave DConstructorAccess.java Lathan1.java Lathan1Access.java ParameterizedConstructor.java ParamAccess.java buku.java bukuAccess.java
Projects Files Services
modul 5
Source Packages
modul.pkg5
BukuAccess.java DCConstructorAccess.java
Lathan1.java Lathan1Access.java
Modul5.java ParamAccess.java
ParameterizedConstructor.java buku.java
defaultConstructor.java
Test Packages
Libraries
Test Libraries
Praktikum PBO Kelas X
Navigator
Members <empty>
ParameterizedConstructor
ParameterizedConstructor(String nama, int semester, String NIM)
NIM: String
nama: String
semester: int
Output
modul 5 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...ave Lathan1.java Lathan1Access.java ParameterizedConstructor.java ParamAccess.java buku.java bukuAccess.java
Projects Files Services
modul 5
Source Packages
modul.pkg5
BukuAccess.java DCConstructorAccess.java
Lathan1.java Lathan1Access.java
Modul5.java ParamAccess.java
ParameterizedConstructor.java buku.java
defaultConstructor.java
Test Packages
Libraries
Test Libraries
Praktikum PBO Kelas X
ParamAccess - Navigator
Members <empty>
ParamAccess
main(String[] args)
Output - modul 5 (run)
run:
Name = Dwi Alvian
NIM = L200180052
Semester = 3
BUILD SUCCESSFUL (total time: 0 seconds)
Output Finished building modul 5 (run).

```

```
5 /*
6  * package modul.pkg5;
7  *
8  */
9 /**
10  * @author LABRPL-21
11  */
12 public class ParameterizedConstructor {
13     String nama;
14     String NIM;
15     int semester;
16
17     public ParameterizedConstructor(String nama, int semester, String NIM) {
18         this.nama = nama;
19         this.semester = semester;
20         this.NIM = NIM;
21     }
22
23     public void info() {
24         System.out.println("Nama = " + nama + "\n NIM = " + NIM + "\n Semester = " + semester);
25     }
26
27 }
```

```
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 modul.pkg5;
7
8 /**
9  *
10  * @author LABRPL-21
11  */
12 public class ParamAccess {
13     public static void main(String[] args) {
14         ParameterizedConstructor PM = new ParameterizedConstructor ("Dwi Alvian", 3, "L200180052");
15         PM.info();
16     }
17
18 }
```

## LATIHAN 2

The screenshot shows two instances of the NetBeans IDE interface. Both instances have the title "modul 5 - NetBeans IDE 8.2".

**Left Window (buku.java):**

```
12 public class buku {
13     String namaPengarang;
14     String judulBuku;
15     int tahunTerbit;
16     int catatanKe;
17     double hargaJual;
18
19     public buku(String namaPengarang, String judulBuku){
20         this.namaPengarang = namaPengarang;
21         this.judulBuku = judulBuku;
22     }
23
24     public buku(int tahunTerbit, int catatanKe){
25         this.tahunTerbit = tahunTerbit;
26         this.catatanKe = catatanKe;
27     }
28
29     public buku(double hargaJual){
30         this.hargaJual = hargaJual;
31     }
32
33     public void info(){
34         System.out.println("Nama Pengarang = " + namaPengarang + "\n Judul Buku = "
35                             + judulBuku);
36     }
37
38     public void info2(){
39         System.out.println("Tahun Terbit = " + tahunTerbit + "\n Catatan Ke = "
40                             + catatanKe);
41     }
42
43     public void info3(){
44         System.out.println("Harga Jual = " + hargaJual);
45     }
46 }
```

**Right Window (BukuAccess.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 modul.pkg5;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class BukuAccess {
13     public static void main(String[] args){
14         buku bk = new buku ("Dwi Alivian", "BOOK");
15         buku bk1 = new buku (2007, 1);
16         buku bk2 = new buku (50000);
17
18         bk.info();
19         bk1.info2();
20         bk2.info3();
21     }
22 }
```

The output pane at the bottom of both windows shows the results of the program execution:

```
Output - modul 5 (run)
Nama Pengarang = Dwi Alivian
Judul Buku = BOOK
Tahun Terbit = 2007
Catatan Ke = 1
Harga Jual = 50000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

## TUGAS

modul 5 - NetBeans IDE 8.2

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

Source History

Projects modul 5

Source Packages modul.pkg5

- BukuAccess.java
- DConstructorAccess.java
- Lathen1.java
- Lathen1Access.java
- Modul5.java
- ParamAccess.java
- ParameterizedConstructor.java
- Tugas.java
- TugasAccess.java
- buku.java
- defaultConstructor.java

Test Packages

Libraries

Navigator Tugas

Members

Tugas

- Tugas()
- Tugas(String nama, String NIM)
- NIM : String
- nama : String

Output

23:6 4:10 PM 10/11/2019

```
/*
 * 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 modul.pkg5;

/**
 *
 * @author LABRPL-21
 */
public class Tugas {
    String nama;
    String NIM;
    public Tugas() {
        System.out.println("Tugas 1");
    }
    public Tugas(String nama, String NIM) {
        this.nama = nama;
        this.NIM = NIM;
        System.out.println("Nama = " + nama + "\nNIM = " + NIM);
    }
}
```

modul 5 - NetBeans IDE 8.2

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

Source History

Projects modul 5

Source Packages modul.pkg5

- BukuAccess.java
- DConstructorAccess.java
- Lathen1.java
- Lathen1Access.java
- Modul5.java
- ParamAccess.java
- ParameterizedConstructor.java
- Tugas.java
- TugasAccess.java
- buku.java
- defaultConstructor.java

Test Packages

Libraries

main - Navigator

Members

TugasAccess

main(String[] args)

Output - modul 5 (run)

run:

Tugas 1  
Nama = Dwi Alvian  
NIM = L200180052  
BUILD SUCCESSFUL (total time: 0 seconds)

Output Finished building modul 5 (run).

15:50 4:11 PM 10/11/2019

```
/*
 * 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 modul.pkg5;

/**
 *
 * @author LABRPL-21
 */
public class TugasAccess {
    public static void main(String[] args) {
        Tugas tgs1 = new Tugas();
        Tugas tgs2 = new Tugas("Dwi Alvian", "L200180052");
    }
}
```

**Nama : Dwi Alvian Verry Ajipramana**  
**NIM : L200180052**  
**Kelas : B**

## LATIHAN

```
pegawai.Kendaraan
/*
 * 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 pegawai;

public class Kendaraan {
    int jumlahKebil = 8;
    int jumlahPesawat = 2;
    int hargaMobil = 20000000;
    int hargaPesawat = 100000000;
}
```

```
pegawai.Mobil
/*
 * 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 pegawai;

public class Mobil extends Kendaraan {
    public static void main(String[] args) {
        int jumlahMobil = 8;
        int hargaMobil = 20000000;
        int hargaKeseluruanMBL;
        Kendaraan kendaraan = new Kendaraan();
        hargaKeseluruanMBL = [kendaraan.hargaMobil * jumlahMobil];
        System.out.println("Harga keseluruan Mobil = " + hargaKeseluruanMBL);
    }
}
```

Output - Pegawai (run) ▾

```
run:
Harga keseluruan Mobil = 1600000000
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Pegawai - 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   package pegawai;
7
8   /**
9    *
10   * @author LABRPL-38
11   */
12  public class Pesawat extends Kendaraan {
13      public static void main(String[] args) {
14          int jumlahPesawat = 2;
15          int hargaPesawat = 1000000000;
16          int hargaKeseluruhanPSWT;
17          Kendaraan kendaraan = new Kendaraan();
18          hargaKeseluruhanPSWT = hargaPesawat * jumlahPesawat;
19          System.out.println("Harga keseluruhan Pesawat = " + hargaKeseluruhanPSWT);
20      }
21  }
22
23

```

Output - Pegawai (run) :

```

run:
Harga keseluruhan Pesawat = 2000000000
BUILD SUCCESSFUL (total time: 0 seconds)

```

IN 16:12 15:44 08/11/2019

## TUGAS

### Bangun Datar

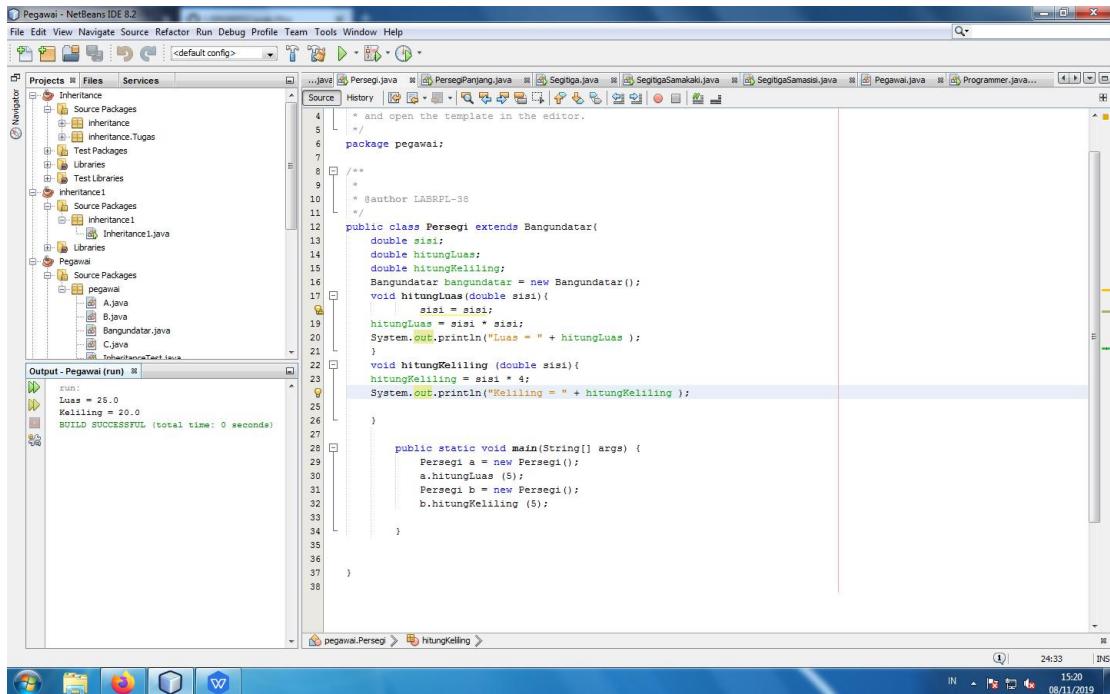
```

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 inheritance.Tugas;
7
8   /**
9   * @author LABRPL-38
10  */
11  public class BangunDatar {
12      protected double luas;
13      protected double keliling;
14
15      protected void hitungLuas() {
16      }
17
18      protected double hitungKeliling() {
19          return keliling;
20      }
21
22
23
24

```

IN 21:16 15:19 08/11/2019

## Persegi



Pegawai - NetBeans IDE 8.2

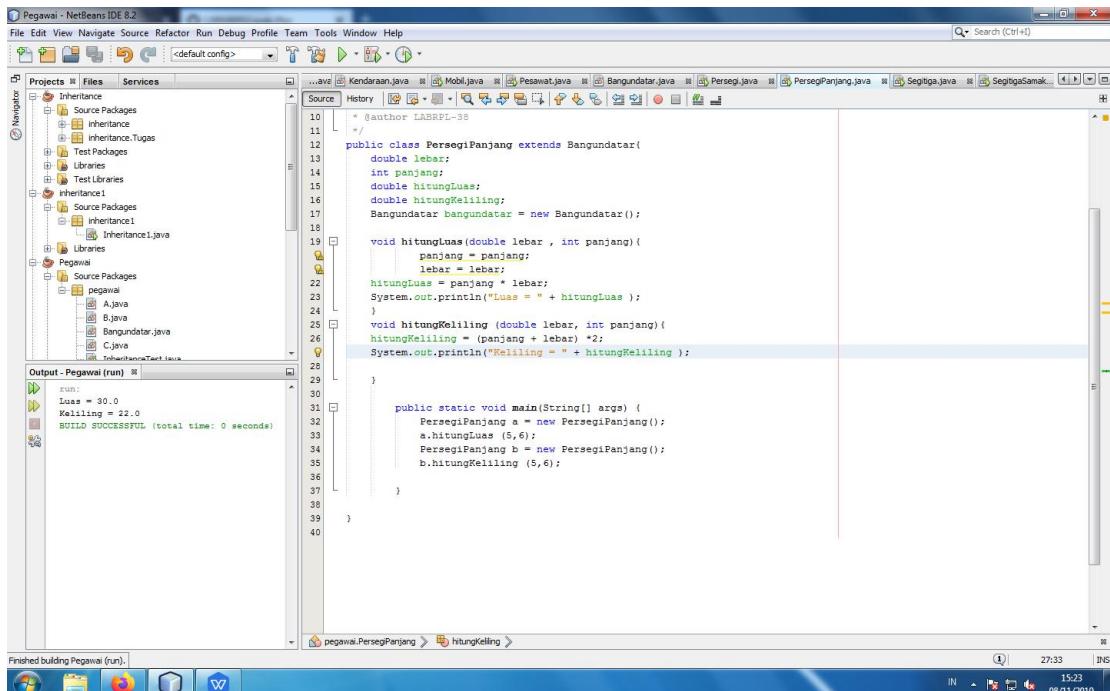
```
4  * and open the template in the editor.
5  */
6  package pegawai;
7
8  /**
9   *
10  * Sauthor LABRPL-38
11  */
12 public class Persegi extends Bangundatar{
13     double sisi;
14     double hitungLuas;
15     double hitungKeliling;
16     Bangundatar bangundatar = new Bangundatar();
17     void hitungLuas(double sisi){
18         sisi = sisi;
19         hitungLuas = sisi * sisi;
20         System.out.println("Luas = " + hitungLuas );
21     }
22     void hitungKeliling (double sisi){
23         sisi = sisi * 4;
24         System.out.println("Keliling = " + hitungKeliling );
25     }
26
27     public static void main(String[] args) {
28         Persegi a = new Persegi();
29         a.hitungLuas (5);
30         Persegi b = new Persegi();
31         b.hitungKeliling (5);
32     }
33
34 }
35
36
37 }
38
```

Output - Pegawai (run) :

```
run
Luas = 25.0
Keliling = 20.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

pegawai.Persegi > hitungLuas > hitungKeliling

## Persegi Panjang



Pegawai - NetBeans IDE 8.2

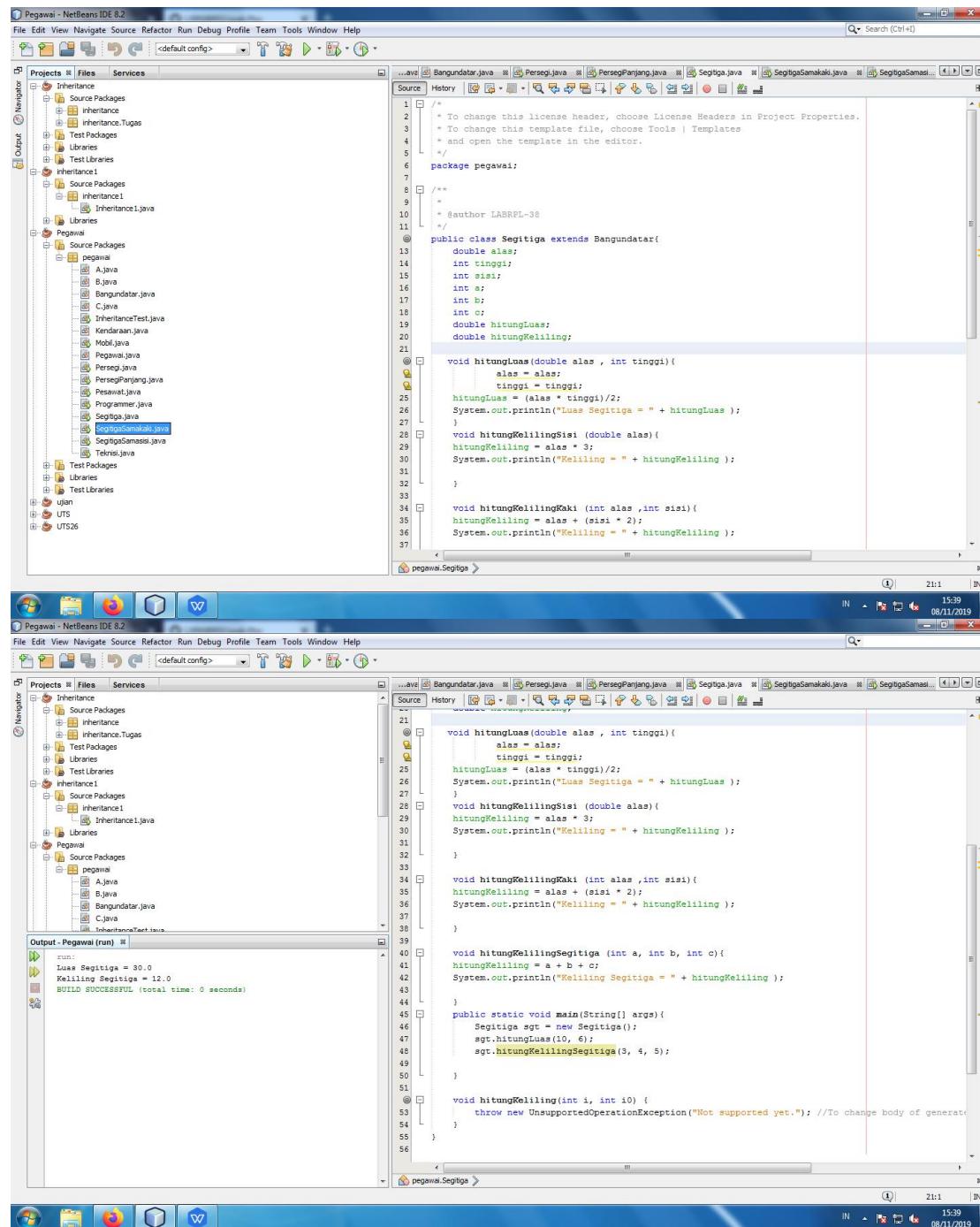
```
10  * Sauthor LABRPL-38
11  */
12 public class PersegiPanjang extends Bangundatar{
13     double lebar;
14     int panjang;
15     double hitungLuas;
16     double hitungKeliling;
17     Bangundatar bangundatar = new Bangundatar();
18
19     void hitungLuas(double lebar , int panjang){
20         panjang = panjang;
21         lebar = lebar;
22         hitungLuas = panjang * lebar;
23         System.out.println("Luas = " + hitungLuas );
24     }
25     void hitungKeliling (double lebar, int panjang){
26         hitungKeliling = (panjang + lebar) * 2;
27         System.out.println("Keliling = " + hitungKeliling );
28     }
29
30     public static void main(String[] args) {
31         PersegiPanjang a = new PersegiPanjang();
32         a.hitungLuas (5,6);
33         PersegiPanjang b = new PersegiPanjang();
34         b.hitungKeliling (5,6);
35     }
36
37 }
38
39 }
40
```

Output - Pegawai (run) :

```
run
Luas = 30.0
Keliling = 22.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

pegawai.PersegiPanjang > hitungLuas > hitungKeliling

## Segitiga



The screenshot shows the NetBeans IDE 8.2 interface with the following details:

- Project Explorer:** Shows the project structure with packages like Inheritance, Inheritance1, Pegawai, and UTS.
- Code Editor:** Displays the `Segitiga.java` file content. The code implements a triangle class (`Segitiga`) that extends a base class (`Bangundatar`). It includes methods for calculating area and perimeter, and a static main method to demonstrate its use.
- Output Window:** Shows the run results:

```
run:
Luas Segitiga = 30.0
Keliling Segitiga = 12.0
BUILD SUCCESSFUL (total time: 0 seconds)
```
- Status Bar:** Shows the date (08/11/2019) and time (15:39).

```
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 pegawai;
7
8  /**
9   * 
10  * @author LABRPL-38
11  */
12 public class Segitiga extends Bangundatar{
13     double alas;
14     int tinggi;
15     int sisi1;
16     int sisi2;
17     int b;
18     int c;
19     double hitungLuas;
20     double hitungKeliling;
21
22     void hitungLuas(double alas , int tinggi){
23         alas = alas;
24         tinggi = tinggi;
25         hitungLuas = (alas * tinggi)/2;
26         System.out.println("Luas Segitiga = " + hitungLuas );
27     }
28     void hitungKelilingSisi (double alas){
29         hitungKeling = alas * 3;
30         System.out.println("Keliling = " + hitungKeling );
31     }
32
33     void hitungKelilingKaki (int alas ,int sisi){
34         hitungKeling = alas + (sisi * 2);
35         System.out.println("Keliling = " + hitungKeling );
36     }
37
38     void hitungKelilingSegitiga (int a, int b, int c){
39         hitungKeling = a + b + c;
40         System.out.println("Keliling Segitiga = " + hitungKeling );
41     }
42
43     public static void main(String[] args){
44         Segitiga sgt = new Segitiga();
45         sgt.hitungLuas(10, 6);
46         sgt.hitungKelilingSegitiga(3, 4, 5);
47     }
48
49     void hitungKeling(int i, int io) {
50         throw new UnsupportedOperationException("Not supported yet."); //To change body of generated
51     }
52
53 }
```

## Segitiga sama kaki

The screenshot shows the NetBeans IDE interface with the title "Pegawai - NetBeans IDE 8.2". The code editor displays Java code for an isosceles triangle class:

```
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  package pegawai;
8
9  /**
10  * @author LABRPL-38
11  */
12 public class SegitigaSamakaki extends Segitiga{
13     int alas;
14     int tinggi;
15     int sisi;
16     double hitungLuas;
17     double hitungKeliling;
18     Bangundatar bangundatar = new Bengundatar();
19
20     public static void main(String[] args) {
21         Segitiga a = new Segitiga();
22         a.hitungLuas (5,6);
23         Segitiga b = new Segitiga();
24         b.hitungKelilingKaki (5,6);
25     }
26
27
28 }
29
```

The output window shows the results of running the program:

```
run:
Luas Segitiga = 15.0
Keliling = 17.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

## Segitiga sama sisi

The screenshot shows the NetBeans IDE interface with the title "Pegawai - NetBeans IDE 8.2". The code editor displays Java code for an equilateral triangle class:

```
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  package pegawai;
8
9  /**
10  * @author LABRPL-38
11  */
12 public class SegitigaSamasisi extends Segitiga{
13     double alas;
14     int tinggi;
15     double hitungLuas;
16     double hitungKeliling;
17     Bangundatar bangundatar = new Bengundatar();
18
19
20     public static void main(String[] args) {
21         SegitigaSamasisi a = new SegitigaSamasisi();
22         a.hitungLuas (5,6);
23         SegitigaSamasisi b = new SegitigaSamasisi();
24         b.hitungKelilingSisi (6);
25     }
26
27
28 }
29
```

The output window shows the results of running the program:

```
run:
Luas Segitiga = 15.0
Keliling = 18.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

Nama : Dwi Alvian Verry A

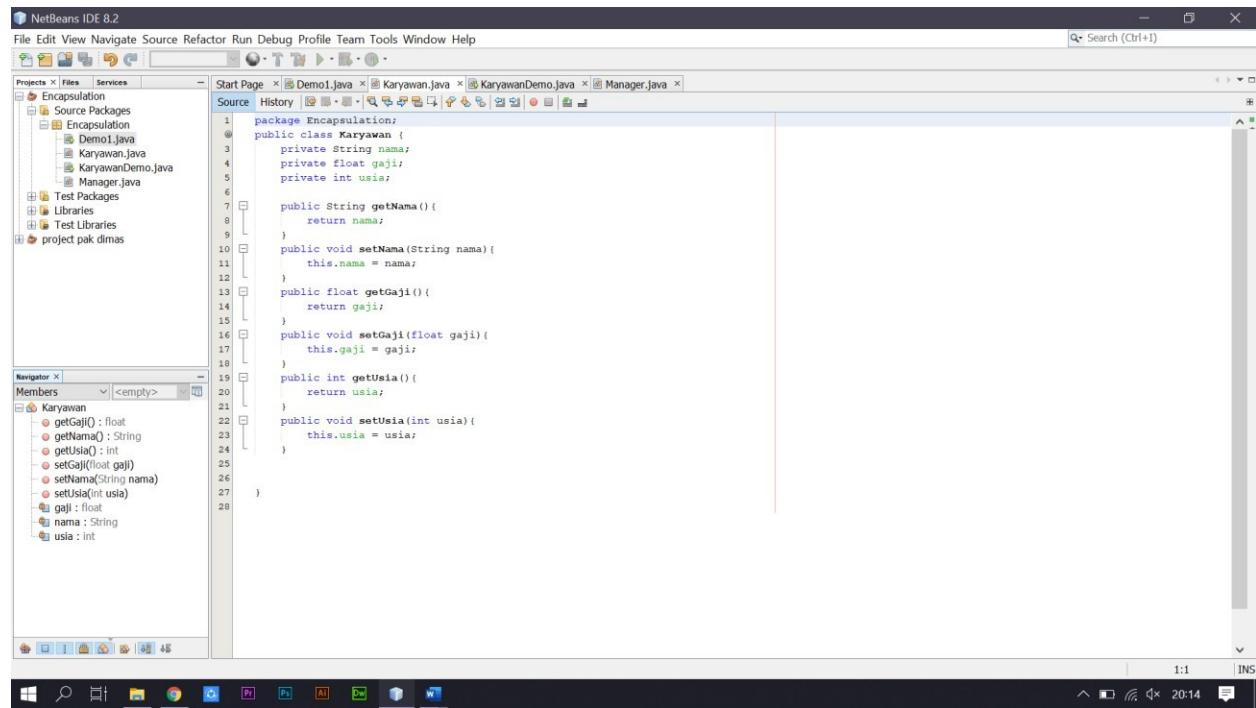
NIM : L200180052

Kelas : B

## MODUL 7

### Latihan 7.2

#### Kelas Karyawan



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

- Projects:** Encapsulation
- Source Packages:** Encapsulation
- Files:** Karyawan.java
- Code Editor:** Content of Karyawan.java:

```
package Encapsulation;
public class Karyawan {
    private String nama;
    private float gaji;
    private int usia;
    public String getNama() {
        return nama;
    }
    public void setNama(String nama) {
        this.nama = nama;
    }
    public float getGaji(){
        return gaji;
    }
    public void setGaji(float gaji){
        this.gaji = gaji;
    }
    public int getUsia(){
        return usia;
    }
    public void setUsia(int usia){
        this.usia = usia;
    }
}
```

#### Kelas KaryawanDemo

Encapsulation - NetBeans IDE 8.2

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

<default config... > Search (Ctrl+I)

Projects Files Services

Source History

Start Page Demo1.java Karyawan.java KaryawanDemo.java Manager.java

Encapsulation

Demo1.java Karyawan.java KaryawanDemo.java Manager.java

Test Packages Libraries Test Libraries

project pak dimas

Navigator Members <empty>

KaryawanDemo

main(String[] args)

```
1 package Encapsulation;
2 public class KaryawanDemo {
3     public static void main(String[] args){
4         Karyawan k1 = new Karyawan();
5         k1.setNama("Luffy");
6         k1.setGaji(2500000);
7         k1.setUsia(20);
8
9         System.out.println(k1.getNama());
10        System.out.println(k1.getGaji());
11        System.out.println(k1.getUsia());
12    }
13}
14
```

1:1 INS

```
1 package Encapsulation;
2 public class KaryawanDemo {
3     public static void main(String[] args){
4         Karyawan k1 = new Karyawan();
5         k1.setNama("Luffy");
6         k1.setGaji(2500000);
7         k1.setUsia(20);
8
9         System.out.println(k1.getNama());
10        System.out.println(k1.getGaji());
11        System.out.println(k1.getUsia());
12    }
13}
14
```

## Kelas Manager

Encapsulation - NetBeans IDE 8.2

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

<default config... > Search (Ctrl+I)

Projects Files Services

Source History

Start Page Demo1.java Karyawan.java KaryawanDemo.java Manager.java

Encapsulation

Demo1.java Karyawan.java KaryawanDemo.java Manager.java

Test Packages Libraries Test Libraries

project pak dimas

Navigator Members <empty>

Manager :: Karyawan

getGajiManager() : float

jamKerja() : float

setjamKerja(float jamKerja)

jamKerja : float

```
1 package Encapsulation;
2 public class Manager extends Karyawan {
3     private float jamKerja = 7.5f;
4
5     public float jamKerja(){
6         return jamKerja;
7     }
8
9     public float getGajiManager(){
10        return getGaji() * 2;
11    }
12    public void setjamKerja(float jamKerja){
13        this.jamKerja = jamKerja;
14    }
15}
16
```

1:1 INS

```
1 package Encapsulation;
2 public class Manager extends Karyawan {
3     private float jamKerja = 7.5f;
4
5     public float jamKerja(){
6         return jamKerja;
7     }
8
9     public float getGajiManager(){
10        return getGaji() * 2;
11    }
12    public void setjamKerja(float jamKerja){
13        this.jamKerja = jamKerja;
14    }
15}
16
```

## Kelas Demo

Encapsulation - NetBeans IDE 8.2

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

<default config... > Search (Ctrl+I)

Projects Files Services

Source History Demo.java Karyawan.java KaryawanDemo.java Manager.java

```
1 package Encapsulation;
2 public class Demo {
3     public static void main(String[] args) {
4         Manager m1 = new Manager();
5         m1.setjamKerja(8.5f);
6         m1.setNama ("Rape");
7         m1.setGaji (2900000);
8         m1.setUsia (26);
9         System.out.println(m1.getNama ());
10        System.out.println(m1.getGajiManager ());
11        System.out.println(m1.getUsia ());
12        System.out.println(m1.jamKerja () +"\n");
13
14        Manager m2 = new Manager();
15        m2.setjamKerja (8.5f);
16        m2.setNama ("Tomori");
17        m2.setGaji (2200000);
18        m2.setUsia (22);
19        System.out.println(m2.getNama ());
20        System.out.println(m2.getGajiManager ());
21        System.out.println(m2.getUsia ());
22        System.out.println(m2.jamKerja () +"\n");
23
24        Manager m3 = new Manager();
25        m3.setjamKerja (8.5f);
26        m3.setNama ("Moun");
27        m3.setGaji (2500000);
28        m3.setUsia (21);
29        System.out.println(m3.getNama ());
30        System.out.println(m3.getGajiManager ());
31        System.out.println(m3.getUsia ());
32        System.out.println(m3.jamKerja () +"\n");
33
34        Manager m4 = new Manager();
35        m4.setjamKerja (8.5f);
36        m4.setNama ("Abraham");
37        m4.setGaji (2600000);
38        m4.setUsia (23);
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56 }
```

Demo Navigator Members <empty>

Windows Taskbar: Search, Chrome, File, Print, AI, Java, Web

Encapsulation - NetBeans IDE 8.2

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

<default config... > Search (Ctrl+I)

Projects Files Services

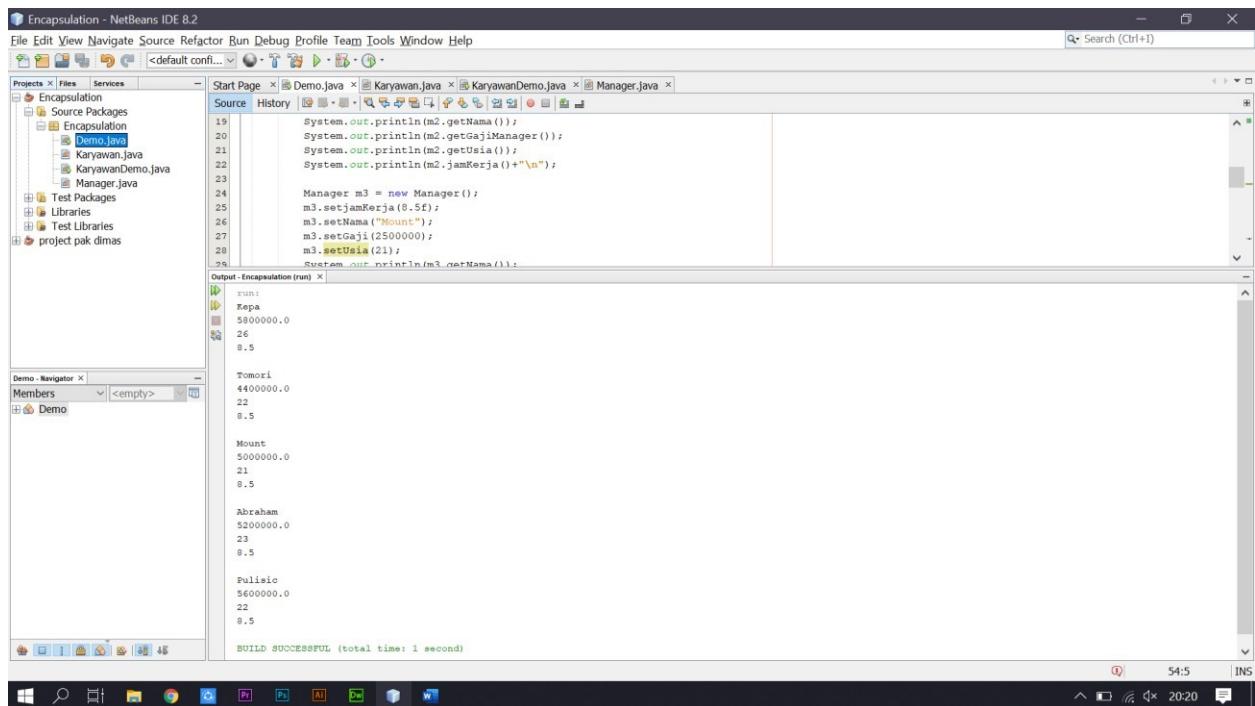
Source History Demo.java Karyawan.java KaryawanDemo.java Manager.java

```
31 System.out.println(m3.getUsia ());
32 System.out.println(m3.jamKerja () +"\n");
33
34 Manager m4 = new Manager();
35 m4.setjamKerja (8.5f);
36 m4.setNama ("Abraham");
37 m4.setGaji (2600000);
38 m4.setUsia (23);
39 System.out.println(m4.getNama ());
40 System.out.println(m4.getGajiManager ());
41 System.out.println(m4.getUsia ());
42 System.out.println(m4.jamKerja () +"\n");
43
44 Manager m5 = new Manager();
45 m5.setjamKerja (8.5f);
46 m5.setNama ("Pulisic");
47 m5.setGaji (2800000);
48 m5.setUsia (22);
49 System.out.println(m5.getNama ());
50 System.out.println(m5.getGajiManager ());
51 System.out.println(m5.getUsia ());
52 System.out.println(m5.jamKerja () +"\n");
53
54
55
56 }
```

Demo Navigator Members <empty>

Windows Taskbar: Search, Chrome, File, Print, AI, Java, Web

## Output dari Kelas Demo

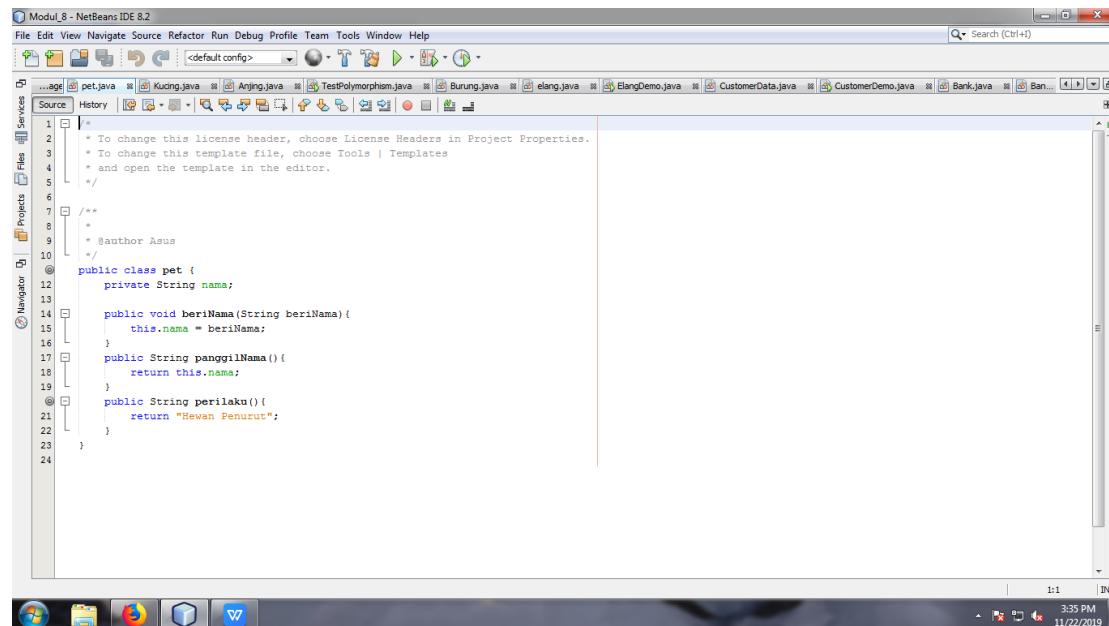


NAMA : DWI ALVIAN VERRY AJIPRAMANA

NIM : L200180052

KELAS : B

## LATIHAN



Modul\_8 - NetBeans IDE 8.2

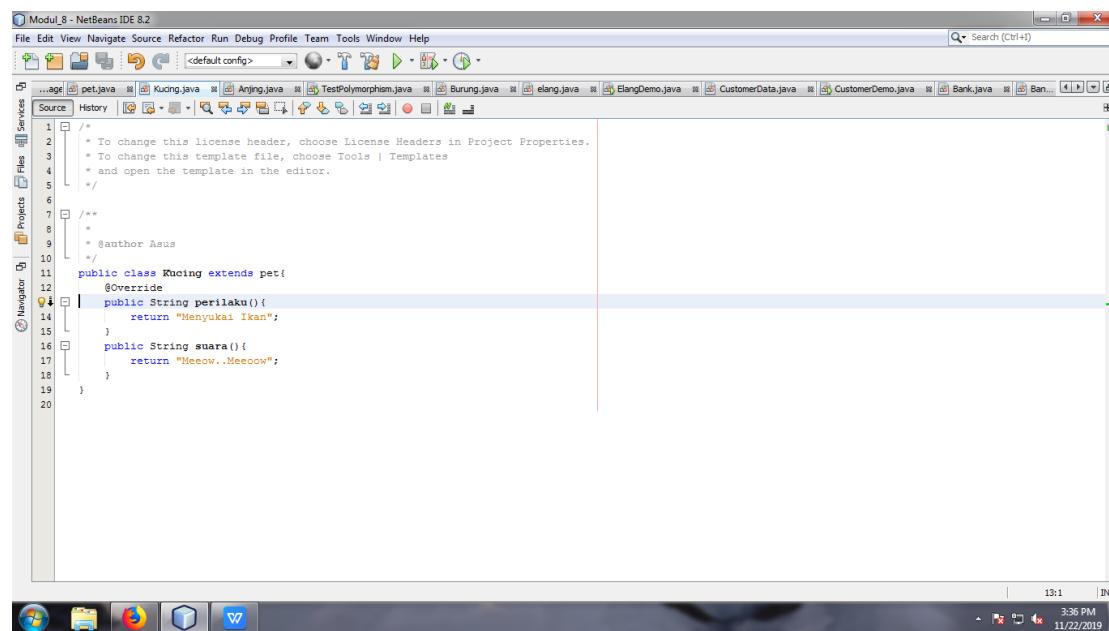
```
pet.java Kucing.java Anjing.java TestPolymorphism.java Burung.java elang.java BlangDemo.java CustomerData.java CustomerDemo.java Bank.java Ban...
```

Source History Services Projects Navigator Files

```
/*
 * 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 Asus
 */
public class pet {
    private String nama;
    public void beriNama(String beriNama) {
        this.nama = beriNama;
    }
    public String panggilNama() {
        return this.nama;
    }
    public String perilaku(){
        return "Hewan Penurut";
    }
}
```

1:1 3:35 PM 11/22/2019



Modul\_8 - NetBeans IDE 8.2

```
Kucing.java Anjing.java TestPolymorphism.java Burung.java elang.java BlangDemo.java CustomerData.java CustomerDemo.java Bank.java Ban...
```

Source History Services Projects Navigator Files

```
/*
 * 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 Asus
 */
public class Kucing extends pet{
    @Override
    public String perilaku(){
        return "Menyukai Ikan";
    }
    public String suara(){
        return "Meeow..Meeow";
    }
}
```

13:1 3:36 PM 11/22/2019

Modul\_8 - 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  * @author Asus
9 */
10 public class Anjing extends pet{
11     public String perilaku(){
12         return "Menyukai Daging dan Tulang";
13     }
14     public String suara(){
15         return "Guk..Guk";
16     }
17 }
18
19
```

Modul\_8 - NetBeans IDE 8.2

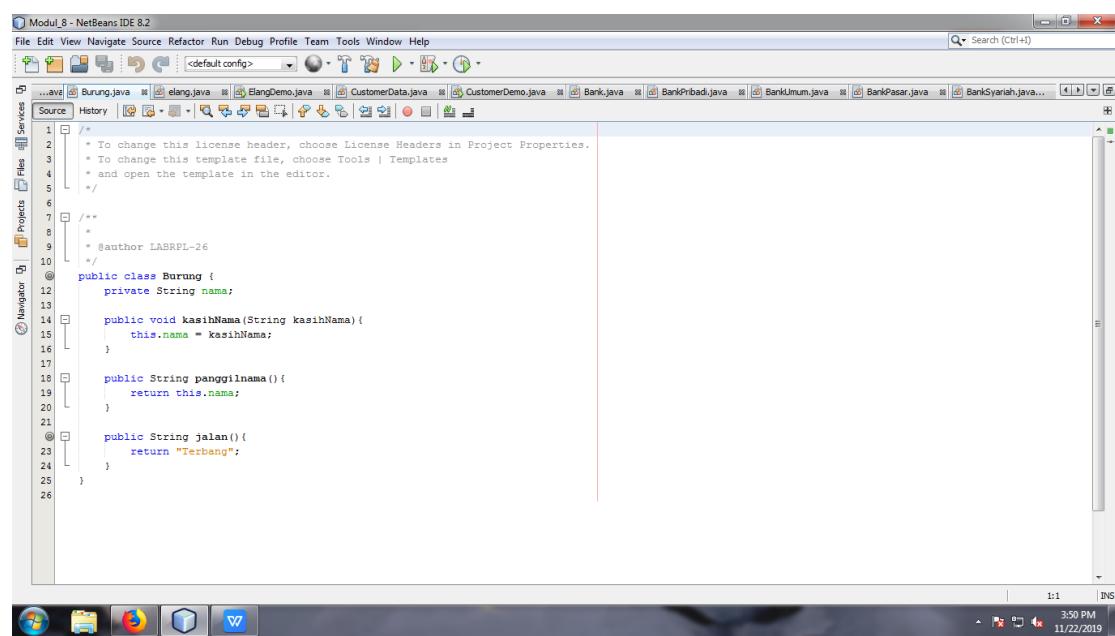
```
6 /**
7  * @author Asus
8 */
9
10 public class TestPolymorphism {
11     public static void main (String[] args){
12         Kucing k = new Kucing();
13         Anjing a = new Anjing();
14
15         k.beriNama("TOM");
16         a.beriNama("BULL");
17
18         System.out.println(
19             k.panggilNama()+"\n"+
20             k.perilaku()+"\n"+
21             k.suara()+"\n"+
22             a.panggilNama()+"\n"+
23             a.perilaku()+"\n"+
24             a.suara());
25     }
26 }
27
```

:Output - Modul\_8 (run)

```
run:
TOM
Menyukai Ikan
Mewo..Mewoo
BULL
Menyukai Daging dan Tulang
Guk..Guk
BUILD SUCCESSFUL (total time: 0 seconds)
```

# TUGAS

## 1. Burung Elang



The screenshot shows the NetBeans IDE 8.2 interface with the title "Modul\_8 - 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, and others. The source code editor displays the following Java 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-26
10 */
11 public class Burung {
12     private String nama;
13
14     public void kasihNama(String kasihNama){
15         this.nama = kasihNama;
16     }
17
18     public String panggilNama(){
19         return this.nama;
20     }
21
22     public String jalan(){
23         return "Terbang";
24     }
25 }
26
```

The code editor has a status bar at the bottom showing "1:1 INS" and a system tray at the very bottom.

Modul\_8 - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Burung.java elang.java ElangDemo.java CustomerData.java CustomerDemo.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java...
Source History Services Projects Navigator
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-26
10 */
11 public class elang extends Burung {
12     public String jalan(){
13         return "Terbang";
14     }
15 }
16
```

12:1 INS 3:50 PM 11/22/2019

Modul\_8 - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Burung.java elang.java ElangDemo.java CustomerData.java CustomerDemo.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java...
Source History Services Projects Navigator
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-26
10 */
11 public class ElangDemo {
12     public static void main (String[] args){
13         elang e = new elang();
14
15         e.kasihNama("HAWK");
16
17         System.out.println(
18             e.panggilNama()+"\n"+
19             e.jalan());
20     }
21 }
```

1:1 INS 3:51 PM 11/22/2019

## 2. Customer Data

Modul\_8 - NetBeans IDE 8.2

```
9  * @author LABRPL-26
10
11 public class CustomerData {
12     private String nama;
13     private String alamat;
14     private String TanggalLahir;
15     private String pekerjaan;
16     private int gaji;
17
18     public String getNama() {
19         return nama;
20     }
21
22     public void setNama(String nama) {
23         this.nama = nama;
24     }
25
26     public String getAlamat() {
27         return alamat;
28     }
29
30     public void setAlamat(String alamat) {
31         this.alamat = alamat;
32     }
33
34     public String getTanggalLahir() {
35         return TanggalLahir;
36     }
37
38     public void setTanggalLahir(String TanggalLahir) {
39         this.TanggalLahir = TanggalLahir;
40     }
41
42     public String getPekerjaan() {
43         return pekerjaan;
44     }
45
46     public void setPekerjaan(String pekerjaan) {
47         this.pekerjaan = pekerjaan;
48     }
49
50     public int getGaji() {
51         return gaji;
52     }
53
54     public void setGaji(int gaji) {
55         this.gaji = gaji;
56     }
57 }
```

Modul\_8 - NetBeans IDE 8.2

```
33
34     public String getTanggalLahir() {
35         return TanggalLahir;
36     }
37
38     public void setTanggalLahir(String TanggalLahir) {
39         this.TanggalLahir = TanggalLahir;
40     }
41
42     public String getPekerjaan() {
43         return pekerjaan;
44     }
45
46     public void setPekerjaan(String pekerjaan) {
47         this.pekerjaan = pekerjaan;
48     }
49
50     public int getGaji() {
51         return gaji;
52     }
53
54     public void setGaji(int gaji) {
55         this.gaji = gaji;
56     }
57 }
```

Modul\_8 - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Burung.java elang.java ElangDemo.java CustomerData.java CustomerDemo.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java...
Source History Services Projects Navigator
8
9 * @author LABRPL-26
10 */
11 public class CustomerDemo {
12     public static void main(String[] args){
13         CustomerData m1 = new CustomerData();
14         m1.setNama("Dwi Alvian");
15         m1.setGaji(4000000);
16         m1.setAlamat("Sragen");
17         m1.setTanggalLahir("25 September 2000");
18         m1.setPekerjaan("Programer");
19         System.out.println("Nama : " + m1.getNama());
20         System.out.println("Alamat : " + m1.getAlamat());
21         System.out.println("Tanggal Lahir : " + m1.getTanggalLahir());
22         System.out.println("Pekerjaan : " + m1.getPekerjaan());
23         System.out.println("Gaji : " + m1.getGaji());
24
25         System.out.println("\n");
26
27         CustomerData m2 = new CustomerData();
28         m2.setNama("Jing");
29         m2.setGaji(3500000);
30         m2.setAlamat("Klaten");
31         m2.setTanggalLahir("2 November 2000");
32         m2.setPekerjaan("Programer");
33         System.out.println("Nama : " + m2.getNama());
34         System.out.println("Alamat : " + m2.getAlamat());
35         System.out.println("Tanggal Lahir : " + m2.getTanggalLahir());
36         System.out.println("Pekerjaan : " + m2.getPekerjaan());
37         System.out.println("Gaji : " + m2.getGaji());
38
39         System.out.println("\n");
40     }
41 }
```

47:44 11/22/2019 3:51 PM

Modul\_8 - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Burung.java elang.java ElangDemo.java CustomerData.java CustomerDemo.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java...
Source History Services Projects Navigator
8
9 * @author LABRPL-26
10 */
11 public class CustomerDemo {
12     public static void main(String[] args){
13         CustomerData m1 = new CustomerData();
14         m1.setNama("Dwi Alvian");
15         m1.setGaji(4000000);
16         m1.setAlamat("Sragen");
17         m1.setTanggalLahir("25 September 2000");
18         m1.setPekerjaan("Programer");
19
20         run();
21         System.out.println("Nama : Dwi Alvian");
22         System.out.println("Alamat : Sragen");
23         System.out.println("Tanggal Lahir : 25 September 2000");
24         System.out.println("Pekerjaan : Programer");
25         System.out.println("Gaji : 4000000");
26
27         System.out.println("\n");
28         System.out.println("Nama : Jing");
29         System.out.println("Alamat : Klaten");
30         System.out.println("Tanggal Lahir : 2 November 2000");
31         System.out.println("Pekerjaan : Programer");
32         System.out.println("Gaji : 3500000");
33
34         System.out.println("\n");
35         System.out.println("Nama : Yazied");
36         System.out.println("Alamat : Pati");
37         System.out.println("Tanggal Lahir : 31 Agustus 1999");
38         System.out.println("Pekerjaan : Programer");
39         System.out.println("Gaji : 200000");
40
41         System.out.println("BUILD SUCCESSFUL (total time: 0 seconds)");
42     }
43 }
```

47:44 11/22/2019 3:51 PM

### 3. Bank

Modul\_8 - NetBeans IDE 8.2

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

Source History Services Projects Files Navigator Output

```
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
6 /**
7 *
8 * @author Asus
9 */
10 public class Bank {
11     protected int rasioBunga(){
12         return 5;
13     }
14 }
15
16
```

Output

3:52 PM 11/22/2019

Modul\_8 - NetBeans IDE 8.2

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

Source History Services Projects Files Navigator Output

```
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
6 /**
7 *
8 * @author Asus
9 */
10 public class BankPribadi extends Bank {
11     protected int rasioBunga(){
12         return 7;
13     }
14 }
15
16
```

Output

3:54 PM 11/22/2019

Modul\_8 - NetBeans IDE 8.2

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

Source History Services Projects Navigator Output

```
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
6 /**
7  * @author Asus
8 */
9 public class BankUmum extends Bank {
10     protected int rasioBunga() {
11         return 9;
12     }
13 }
14
15
16
```

3:54 PM 11/22/2019

Modul\_8 - NetBeans IDE 8.2

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

Source History Services Projects Navigator Output

```
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
6 /**
7  * @author Asus
8 */
9 public class BankPasar extends BankUmum {
10     protected int rasioBunga() {
11         return 3;
12     }
13 }
14
15
16
```

3:54 PM 11/22/2019

Modul\_8 - NetBeans IDE 8.2

```
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
6 /**
7 *
8 * @author Asus
9 */
10 public class BankSyariah extends BankUmum{
11     protected int rasioBunga(){
12         return 0;
13     }
14 }
15
16
```

Modul\_8 - NetBeans IDE 8.2

```
1 * and open the template in the editor.
2 */
3
4 /**
5 *
6 * @author Asus
7 */
8
9
10 public class BankDemo {
11     public static void main(String[] args){
12         Bank bpr = new BankPribadi();
13         Bank bu = new BankUmum();
14         Bank bp = new BankPasar();
15         Bank bs = new BankSyariah();
16
17         System.out.println(
18             "Bank Pribadi :" + bpr.rasioBunga() +"\n"+
19             "Bank Umum :" + bu.rasioBunga() +"\n"+
20             "Bank Pasar :" + bp.rasioBunga() +"\n"+
21             "Bank Syariah :" + bs.rasioBunga());
22
23         BankUmum bkpsr = new BankPasar();
24         BankUmum bkeyr = new BankSyariah();
25
26         System.out.println(
27             "Bank Pasar :" + bkpsr.rasioBunga() +"\n"+
28             "Bank Syariah :" + bkeyr.rasioBunga());
29     }
30 }
31
32 }
```

Modul\_8 - NetBeans IDE 8.2

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

...java ElangDemo.java CustomerData.java CustomerDemo.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java BankDemo.java

Services Source History

Projects Navigator

```
4  * and open the template in the editor.
5  */
6
7  /**
8   *
9   * @author Asus
10  */
11 public class BankDemo {
12     public static void main(String[] args){
13         Bank bpr = new BankPribadi();
14         Bank bu = new BankUmum();
15         Bank bp = new BankPasar();
16         Bank bs = new BankSyariah();
17
18         System.out.println(
19             "Bank Pribadi :" + bpr.rasioBunga() +"\n"+
20             "Bank Umum :" + bu.rasioBunga() +"\n"+
21             "Bank Paser :" + bp.rasioBunga() +"\n"+
22             "Bank Syariah :" + bs.rasioBunga()
23         );
24         BankUmum bkpsr = new BankPasar();
25         BankUmum bksyr = new BankSyariah();
26     }
}
```

Output - Modul\_8 (run)

```
run:
Bank Pribadi :7
Bank Umum :9
Bank Paser :3
Bank Syariah :0
Bank Paser :3
Bank Syariah :0
BUILD SUCCESSFUL (total time: 0 seconds)
|
```

Output

Windows Taskbar: Internet Explorer, Mozilla Firefox, File Explorer, FileZilla, WinRAR, Notepad, Command Prompt

System tray: Network icon, Battery icon, Volume icon, Date and Time (3:55 PM, 11/22/2019)

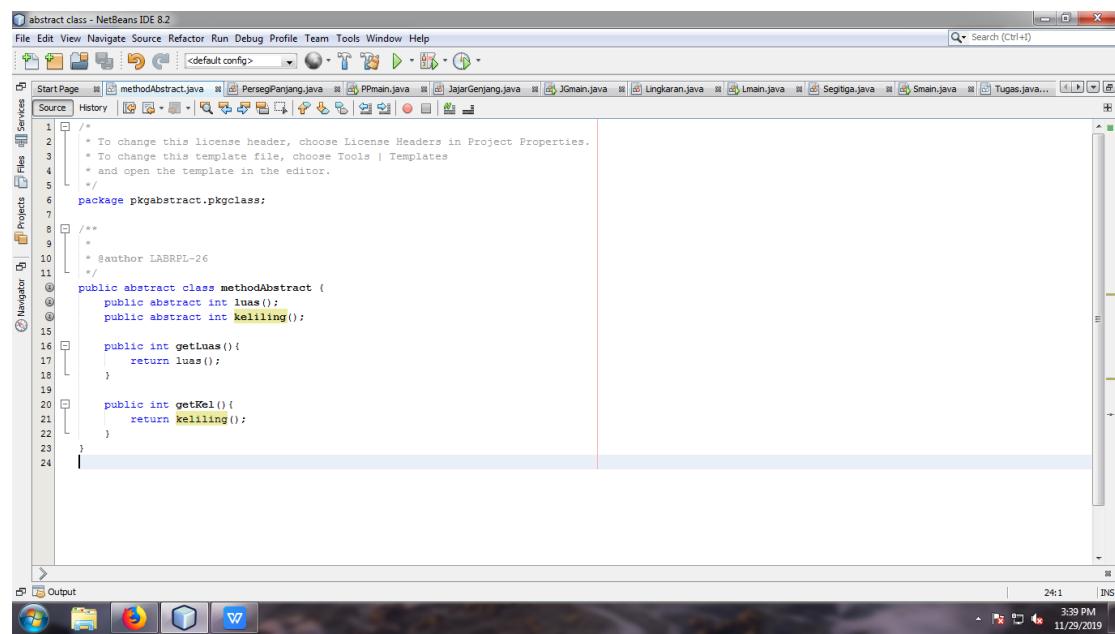
NAMA : DWI ALVIAN VERRY AJIPRAMANA

NIM : L200180052

KELAS : B

## LATIHAN

### Method Abstract



The screenshot shows the NetBeans IDE interface with the title "abstract class - NetBeans IDE 8.2". The code editor displays the following Java 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 pkgabstract.pkgclass;
7
8  /**
9   * @author LABRPL-26
10  */
11 public abstract class methodAbstract {
12     public abstract int luas();
13     public abstract int keliling();
14
15     public int getLuas() {
16         return luas();
17     }
18
19     public int getKel() {
20         return keliling();
21     }
22 }
23
24 
```

The code defines an abstract class named `methodAbstract` with two abstract methods: `luas()` and `keliling()`. It also contains two concrete methods: `getLuas()` and `getKel()` which return the values of the abstract methods.

### Persegi Panjang

abstract class - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Services Projects Files Navigator Output
Start Page methodAbstract.java PersegPanjang.java PPmain.java JajarGenjang.java JGmain.java Lingkaran.java Lmain.java Segitiga.java Smain.java Tugas.java...
Search (Ctrl+F) 9:3 INS 3:40 PM 11/29/2019
```

```
6 package pkgabstract.pkgclass;
7
8 /**
9 * @author LABRPL-26
10 */
11 public class PersegPanjang extends methodAbstract{
12     int panjang = 5;
13     int lebar = 2;
14
15     @Override
16     public int luas() {
17         return panjang * lebar;
18     }
19
20     @Override
21     public int keliling() {
22         return 2 * (panjang + lebar);
23     }
24
25 }
26
27
28 }
29
```

abstract class - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Services Projects Files Navigator Output
Start Page methodAbstract.java PersegPanjang.java PPmain.java JajarGenjang.java JGmain.java Lingkaran.java Lmain.java Segitiga.java Smain.java Tugas.java...
Search (Ctrl+F) 8:4 INS 3:41 PM 11/29/2019
```

```
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 pkgabstract.pkgclass;
7
8 /**
9 * @author LABRPL-26
10 */
11 public class PPmain {
12     public static void main(String[] args){
13         PersegPanjang PP = new PersegPanjang();
14         System.out.println("Keliling = " + PP.getKel());
15         System.out.println("Luas = " + PP.getLuas());
16     }
17 }
18
19
```

: Output - abstract class (run)

```
run:
Keliling = 14
Luas = 10
BUILD SUCCESSFUL (total time: 0 seconds)
```

Jajar Genjang

abstract class - NetBeans IDE 8.2

```
package pkgabstract.pkgclass;

/*
 * @author LABRPL-26
 */
public class JajarGenjang extends methodAbstract {
    int alas = 5;
    int sisimiring = 3;
    int tinggi = 2;

    @Override
    public int luas() {
        return alas * tinggi;
    }

    @Override
    public int keliling() {
        return (2 * alas) + (2 * sisimiring);
    }
}
```

abstract class - 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 pkgabstract.pkgclass;

/*
 * @author LABRPL-26
 */
public class JGmain {
    public static void main(String[] args){
        JajarGenjang JG = new JajarGenjang();
        System.out.println("Keliling = " + JG.getKel());
        System.out.println("Luas = " + JG.getLuas());
    }
}

Output - abstract class (run)
run:
Keliling = 16
Luas = 10
BUILD SUCCESSFUL (total time: 0 seconds)
```

Lingkaran

abstract class - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Services Projects Navigator Output
Start Page methodAbstract.java PersegPanjang.java PPmain.java JajarGenjang.java JGmain.java Lingkaran.java Lmain.java Segitiga.java Smain.java Tugas.java...
Source <default config> Search (Ctrl+F)
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6 package pkgabstract.pkgclass;
7
8 /**
9 * @author LABRPL-26
10 */
11 public class Lingkaran extends methodAbstract {
12     int jari = 7;
13
14
15     @Override
16     public int luas() {
17         return 22 * (jari * jari) / 7;
18     }
19
20     @Override
21     public int keliling() {
22         return (2 * 22 * jari) / 7;
23     }
24 }
25
26
```

Output

abstract class - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Services Projects Navigator Output
Start Page methodAbstract.java PersegPanjang.java PPmain.java JajarGenjang.java JGmain.java Lingkaran.java Lmain.java Segitiga.java Smain.java Tugas.java...
Source <default config> Search (Ctrl+F)
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 pkgabstract.pkgclass;
7
8 /**
9 * @author LABRPL-26
10 */
11 public class Lmain {
12     public static void main(String[] args){
13         Lingkaran l = new Lingkaran();
14         System.out.println("Keliling = " + l.getKel());
15         System.out.println("Luas = " + l.getLuas());
16     }
17 }
18
19
```

Output - abstract class (run)

```
run:
└── Keliling = 44
└── Luas = 154
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

## Segitiga

abstract class - NetBeans IDE 8.2

```
4  * and open the template in the editor.
5  */
6  package pkgabstract.pkgclass;
7
8 /**
9  * @author LABRPL-26
10 */
11 public class Segitiga extends methodAbstract {
12     int alas = 4;
13     int tinggi = 3;
14
15
16     @Override
17     public int luas() {
18         return (alas * tinggi) / 2;
19     }
20
21     @Override
22     public int keliling() {
23         return tinggi + alas + tinggi;
24     }
25 }
26
27
```

Output

abstract class - 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  package pkgabstract.pkgclass;
7
8 /**
9  * @author LABRPL-26
10 */
11 public class Smain {
12     public static void main(String[] args){
13         Segitiga S = new Segitiga();
14         System.out.println("Keliling = " + S.getKel());
15         System.out.println("Luas = " + S.getLuas());
16     }
17 }
18
19
```

Output - abstract class (run)

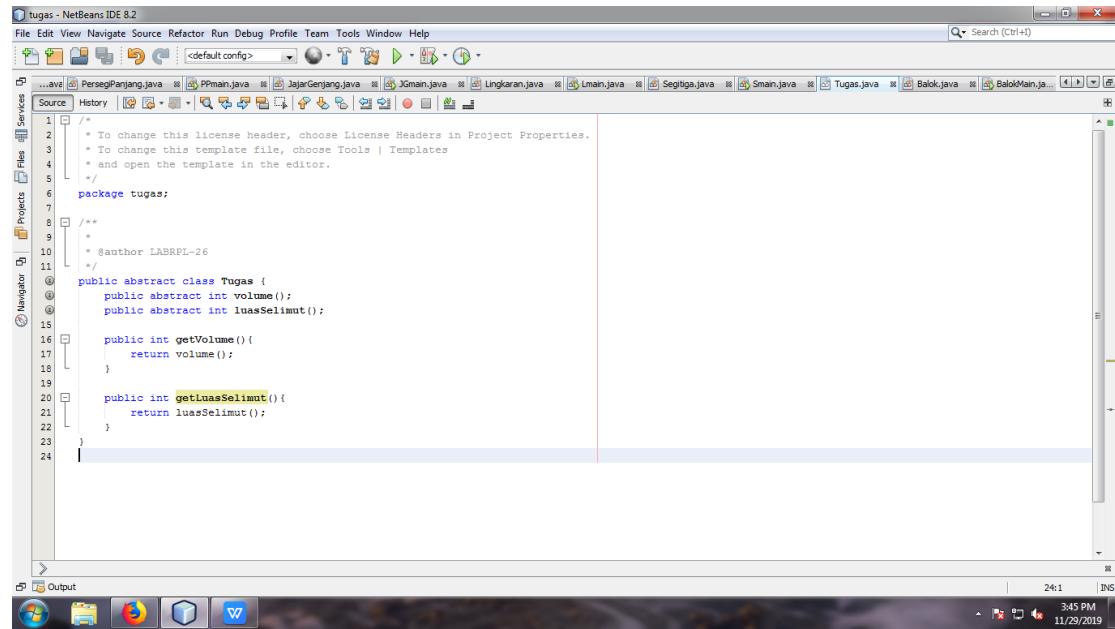
```
run:
run:
Keliling = 10
Luas = 6
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output



# TUGAS

## Abstract Method



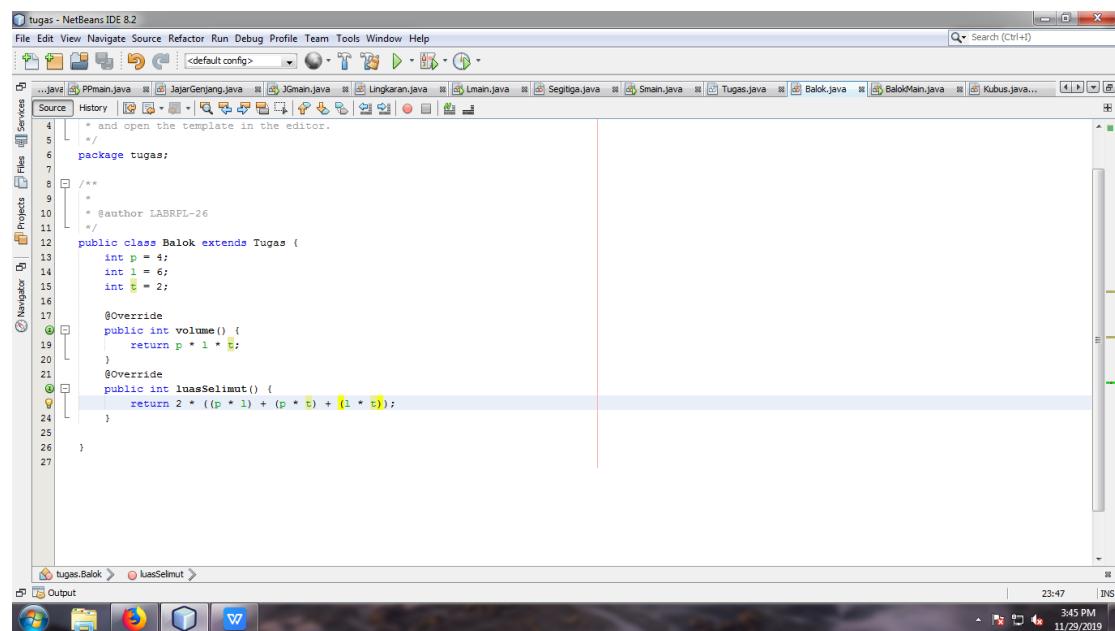
```
/* To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package tugas;

/**
 * @author LABRPL-26
 */
public abstract class Tugas {
    public abstract int volume();
    public abstract int luasSelimut();

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

    public int getLuasSelimut() {
        return luasSelimut();
    }
}
```

## Balok



```
* and open the template in the editor.
 */
package tugas;

public class Balok extends Tugas {
    int p = 4;
    int l = 6;
    int s = 2;

    @Override
    public int volume() {
        return p * l * s;
    }

    @Override
    public int luasSelimut() {
        return 2 * ((p * l) + (p * s) + (l * s));
    }
}
```

tugas - NetBeans IDE 8.2

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

Source History Services Projects Navigator

```
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 tugas;
6
7 /**
8 * @author LABRPL-26
9 */
10 public class BalokMain {
11     public static void main(String[] args){
12         Balok B = new Balok();
13         System.out.println("Keliling = " + B.getVolume());
14         System.out.println("Luas = " + B.getLuasSelimut());
15     }
16 }
17
18
19
```

: Output - tugas (run)

```
run:
Keliling = 48
Luas = 88
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output Finished building tugas (run).

6:15 3:46 PM 11/29/2019

This screenshot shows the NetBeans IDE 8.2 interface. The title bar says 'tugas - NetBeans IDE 8.2'. The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, and Help. The toolbar has icons for New, Open, Save, Cut, Copy, Paste, Find, Replace, and others. The left sidebar has 'Services', 'Projects' (with a tree view of Java files), and 'Navigator'. The main editor area contains Java code for a 'BalokMain' class. The code defines a class 'Balok' with a constructor and methods for volume and surface area. The 'main' method creates a 'Balok' object and prints its volume and surface area. The output window shows the results of running the program. The bottom status bar shows the time as 6:15 and 3:46 PM, the date as 11/29/2019, and the build number as IN6.

## Kubus

tugas - NetBeans IDE 8.2

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

Source History Services Projects Navigator

```
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 tugas;
6
7 /**
8 * @author LABRPL-26
9 */
10 public class Kubus extends Tugas {
11     int sisi = 4;
12
13     @Override
14     public int volume() {
15         return 6 * (sisi * sisi);
16     }
17     @Override
18     public int luasSelimut() {
19         return sisi * sisi * sisi;
20     }
21 }
22
23
24
```

Output

24:1 3:46 PM 11/29/2019

This screenshot shows the NetBeans IDE 8.2 interface. The title bar says 'tugas - NetBeans IDE 8.2'. The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, and Help. The toolbar has icons for New, Open, Save, Cut, Copy, Paste, Find, Replace, and others. The left sidebar has 'Services', 'Projects' (with a tree view of Java files), and 'Navigator'. The main editor area contains Java code for a 'Kubus' class that extends 'Tugas'. It overrides the 'volume()' and 'luasSelimut()' methods. The 'volume()' method calculates the volume as 6 times the side length squared. The 'luasSelimut()' method calculates the surface area as the side length cubed. The bottom status bar shows the time as 24:1 and 3:46 PM, the date as 11/29/2019, and the build number as IN6.

tugas - 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  package tugas;
7
8  /**
9  * @author LABRPL-26
10 */
11 public class KubusMain {
12     public static void main(String[] args){
13         Kubus K = new Kubus();
14         System.out.println("Kelling = " + K.getVolume());
15         System.out.println("Luas = " + K.getLuasSelimut());
16     }
17 }
18
19
:Output - tugas (run)
run:
Kelling = 96
Luas = 64
BUILD SUCCESSFUL (total time: 0 seconds)

Output | Finished building tugas (run).

```

19:1 3:46 PM 11/29/2019

## Bola

tugas - 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  package tugas;
7
8  /**
9  * @author LABRPL-26
10 */
11 public class Bola extends Tugas {
12     int jari = 7;
13
14     @Override
15     public int volume() {
16         return 4 * ((22 * jari * jari * jari) / 7) / 3 ;
17     }
18     @Override
19     public int luasSelimut() {
20         return 4 * (22 * jari * jari) / 7;
21     }
22 }
23
24

```

24:1 3:47 PM 11/29/2019

tugas - NetBeans IDE 8.2

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

Source History Services Projects Navigator

```

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 tugas;
7
8 /**
9  * @author LABRPL-26
10 */
11 public class BolaMain {
12     public static void main(String[] args){
13         Bola bl = new Bola();
14         System.out.println("Keliling = " + bl.getVolume());
15         System.out.println("Luas = " + bl.getLuasSelimut());
16     }
17 }
18
19
:
```

**: Output - tugas (run)**

```

run:
Keliling = 1437
Luas = 616
BUILD SUCCESSFUL (total time: 0 seconds)

```

Output Finished building tugas (run).

19:1 3:47 PM 11/29/2019

## Kerucut

tugas - NetBeans IDE 8.2

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

Source History Services Projects Navigator

```

3 /*
4  * To change this template file, choose Tools | Templates
5  * and open the template in the editor.
6  */
7 package tugas;
8
9 /**
10  * @author LABRPL-26
11 */
12 public class Kerucut extends Tugas {
13     int r = 7;
14     int s = 10;
15     int l = 5;
16
17     @Override
18     public int volume() {
19         return ((22 * r * r * l) / 7) / 3;
20     }
21
22     @Override
23     public int luasSelimut() {
24         return (22 * r * s) / 7;
25     }
26
:
```

Output

26:1 3:47 PM 11/29/2019

tugas - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Smain.java Tugas.java Balok.java BalokMain.java Kubus.java KubusMain.java Bola.java BolaMain.java Kerucut.java KerucutMain.java PrismaSegitiga.java <default config> Search (Ctrl+F)
Source History Projects Services Navigator Output
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 tugas;
7
8 /**
9  * @author LABRPL-26
10 */
11 public class KerucutMain {
12     public static void main(String[] args){
13         Kerucut kc = new Kerucut();
14         System.out.println("Kerucut " + kc.getVolume());
15         System.out.println("Luas = " + kc.getLuasSelimut());
16     }
17 }
18
19
```

Output

19:1 3:48 PM 11/29/2019

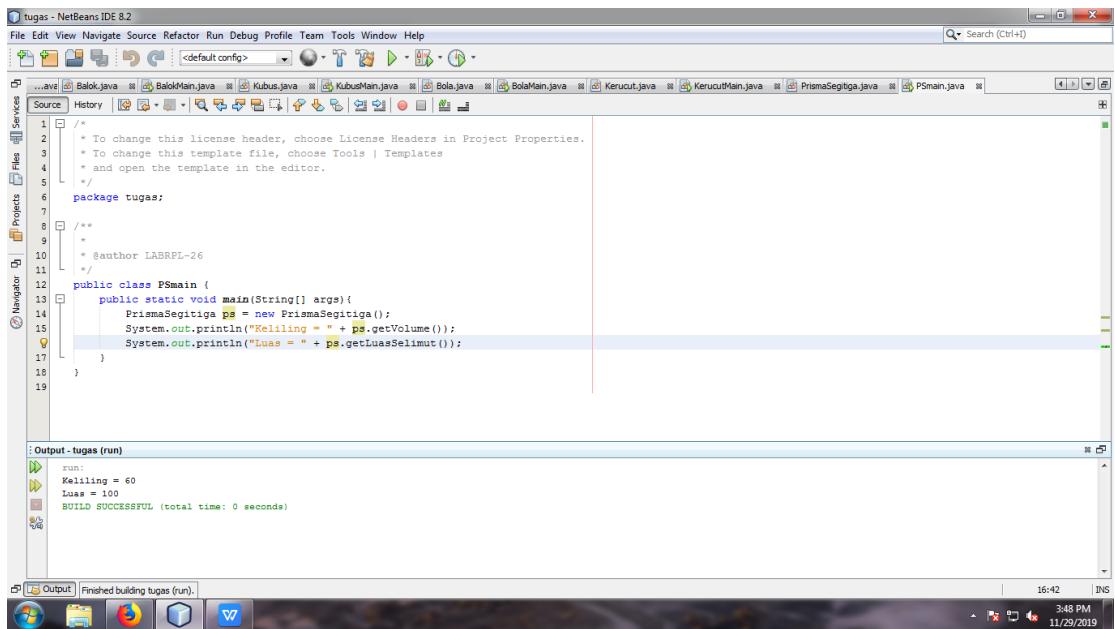
## Prisma Segitiga

tugas - NetBeans IDE 8.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Tugas.java Balok.java BalokMain.java Kubus.java KubusMain.java Bola.java BolaMain.java Kerucut.java KerucutMain.java PrismaSegitiga.java PMain.java <default config> Search (Ctrl+F)
Source History Projects Services Navigator Output
3 /*
4  * To change this template file, choose Tools | Templates
5  * and open the template in the editor.
6  */
7 package tugas;
8
9 /**
10  * @author LABRPL-26
11 */
12 public class PrismaSegitiga extends Tugas {
13     int a = 5;
14     int b = 5;
15     int s = 10;
16
17     @Override
18     public int volume() {
19         return ((a * b) / 2) * s;
20     }
21
22     @Override
23     public int luasSelimut() {
24         return 2 * a * s;
25     }
26 }
```

Output

26:1 3:48 PM 11/29/2019



NAMA : DWI ALVIAN VERRY AJIPRAMANA

NIM : L200180052

KELAS : B

## TUGAS PRAKTIKUM 10

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

- Title Bar:** Percobaan - 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 "Percobaan" containing packages "percobaan" and "apkLampu".
- 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 package percobaan;
7
8 /**
9 *
10 * @author LABRPL-26
11 */
12 public interface ActivityLampu {
13     public static final int LAMPU_HIDUP=1;
14     public static final int LAMPU_MATI=0;
15     public static final int LAMPU_REDUP=2;
16     public abstract void matikanLampu();
17     public abstract void hidupkanLampu();
18     public abstract void redupkanLampu();
19 }
20
```
- Navigator:** Shows members of the `ActivityLampu` interface: `hidupkanLampu()`, `matikanLampu()`, `redupkanLampu()`, `LAMPU_HIDUP`, `LAMPU_MATI`, and `LAMPU_REDUP`.
- Bottom Status Bar:** Shows the task bar with "Percobaan (run)" and "1 task running. Click for details.", the date "12/6/2019", and the time "3:36 PM".

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

- Title Bar:** Percobaan - 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 "Percobaan" containing packages "percobaan" and "apkLampu".
- Source Editor:** Displays the code for the `Lampu` class:

```
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 percobaan;
7
8 /**
9 *
10 * @author LABRPL-26
11 */
12 public class Lampu implements ActivityLampu{
13     public int statusLampu;
14
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
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 }
```
- Bottom Status Bar:** Shows the task bar with "Percobaan (run)" and "running...", the date "12/6/2019", and the time "3:37 PM".

Percobaan - NetBeans IDE 8.2

```
27     }else {
28         statusLampu+=1;
29         System.out.println("Lampu sudah dalam kondisi menyala");
30     }
31
32     public void redupkanLampu(){
33         if(statusLampu==2){
34             System.out.println("Lampu ini redup\n***");
35         }else {
36             statusLampu+=2;
37             System.out.println("Lampu ini dalam kondisi redup");
38         }
39     }
40
41
42     public int setSaklar(int saklar){
43         return statusLampu = saklar;
44     }
45
46 }
```

Percobaan (run) | running... | 41:5 | INS  
3:39 PM 12/6/2019

Percobaan - NetBeans IDE 8.2

```
13 */
14 public class apkLampu {
15     public static void main(String[] args){
16         Lampu lmp = new Lampu();
17         Scanner sc = new Scanner(System.in);
18         lmp.statusLampu = lmp.setSaklar(0);
19         System.out.println("Status Lampu = " + lmp.statusLampu + "\nketikkan");
20         System.out.println("0 untuk mematikan lampu\n1 untuk menghidupkan lampu\n2 untuk lampu redup");
21
22         int s = sc.nextInt();
23         if(lmp.setSaklar(s)==0){
24             lmp.matiakanLampu();
25         }
26         else if(lmp.setSaklar(s)==1){
27             lmp.hidupkanLampu();
28         }
29         else {
30             lmp.redupkanLampu();
31         }
32     }
33 }
```

Output - Percobaan (run) #2

```
run:
Status Lampu = 0
ketikkan
0 untuk mematikan lampu
1 untuk menghidupkan lampu
2 untuk lampu redup
2
Lampu ini redup
***
BUILD SUCCESSFUL (total time: 7 seconds)
```

Percobaan (run) | running... | 33:2 | INS  
3:39 PM 12/6/2019

NAMA : DWI ALVIAN VERRY AJIPRAMANA

NIM : L200180052

KELAS : B

LATIHAN MODUL 11 (NESTED CLASS)

The screenshot shows the JavaApplication10 project in NetBeans IDE 8.2. The code editor displays the NestedClass.java file with the following content:

```
8  /*
9  * Author LABRPL-26
10 */
11
12 public class NestedClass {
13     String name = "Dwi Alvian Verry A";
14     String nim = "L200180052";
15
16     public void printNama() {
17         System.out.println(name + " : " + nim);
18     }
19
20     static class StaticNestedClass{
21         static String jurusan = "Informatika";
22         public void methodNama(){
23             NestedClass nested = new NestedClass();
24             nested.printNama();
25         }
26     }
27
28     class InnerClass{
29         public void Jurusan(){
30             NestedClass.StaticNestedClass nested = new NestedClass.StaticNestedClass();
31             System.out.println(nested.jurusan);
32         }
33     }
34 }
```

The Navigator pane on the left shows the members of the NestedClass class, including InnerClass, NestedClass, Jurusan(), printNama(), name, nim, StaticNestedClass, methodNama(), and jurusan.

The screenshot shows the JavaApplication10 project in NetBeans IDE 8.2. The Projects panel on the left lists the project structure. The Navigator panel below it shows the Main class with its main() method. The Source editor panel on the right displays the code for Main.java, which contains a nested class named NestedClass. The code includes a license header, package declaration, and a main() method that creates an instance of NestedClass and calls its printNama() and Jurusan() methods.

```
/*
 * 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 javaapplication10;

/**
 *
 * @author LABRFL-26
 */
public class Main {
    public static void main(String[] args) {
        NestedClass nest = new NestedClass();
        InnerClass in = new InnerClass();
        nest.printNama();
        in.Jurusan();
    }
}
```

**NAMA : DWI ALVIAN VERRY A**

NIM : L200180052

## KELAS : B

## LATIHAN

## Frame

The screenshot shows the NetBeans IDE interface with the title "Modul 12 - 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, Build, Run, Stop, and Exit. The Projects tab shows "Modul 12" with packages "Source Packages" containing "Utama.java" and "Test Packages" containing "UtamaTest.java". The Files tab shows "Utama.java" selected. The Services tab is empty. The code editor displays the following Java 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 L200180035
10 */
11 public class Utama extends javax.swing.JFrame{
12     public Utama() {
13         super("Belajar mengenal GUI");
14         setSize(300,100);
15         setDefaultCloseOperation(EXIT_ON_CLOSE);
16         setVisible(true);
17         setLocationRelativeTo(null);
18     }
19     public static void main(String[] args) {
20         Utama u = new Utama();
21     }
22 }
```

The Navigator pane shows members of the Utama class: Utama :: JFrame, Utama(), and main(String[] args). The status bar at the bottom right shows the date and time: 3:47 PM 12/20/2019.

A screenshot of 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 title bar says "Modul 12 - NetBeans IDE 8.2". The left sidebar shows the Project Explorer with "Module 12" selected, displaying Source Packages (DemoLabelButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, Utama.java) and Test Packages, Libraries, and Test Libraries. The Navigator panel below shows members of the Utama class, including Utama::JFrame, Utama::JPanel, and main(String[] args). The center workspace shows a Java code editor with the following content:

```
/*  
 * 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.  
 */  
  
Belajar mengenal GUI
```

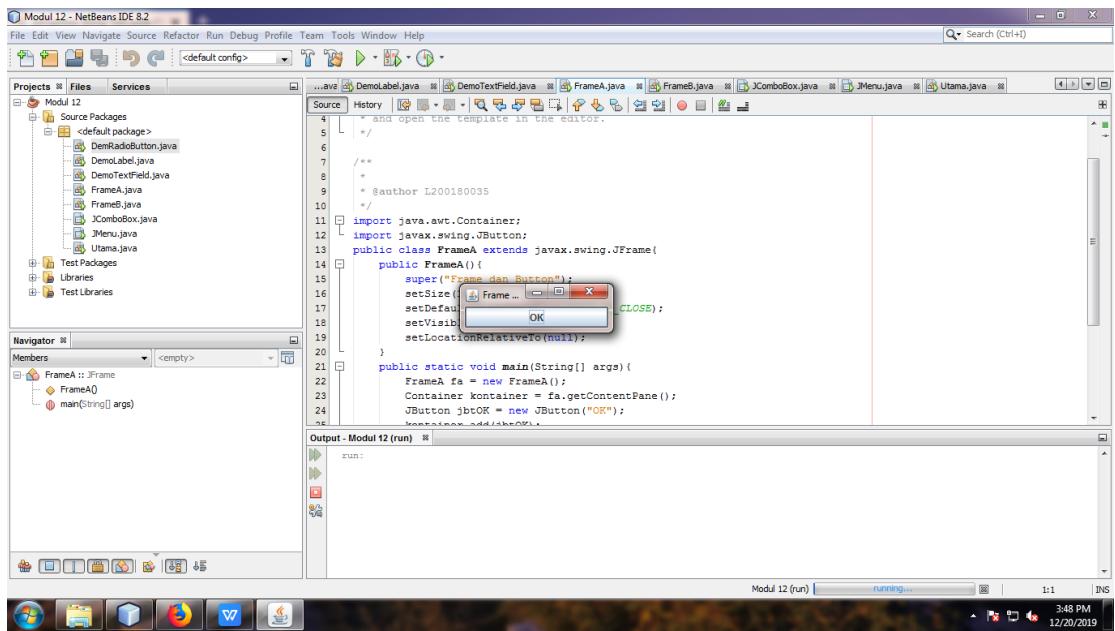
A Java application window titled "Belajar mengenal GUI" is displayed in the center. The bottom status bar shows "Modul 12 (run) | running..." and the system tray indicates the date and time as 12/20/2019 3:47 PM.

## Button

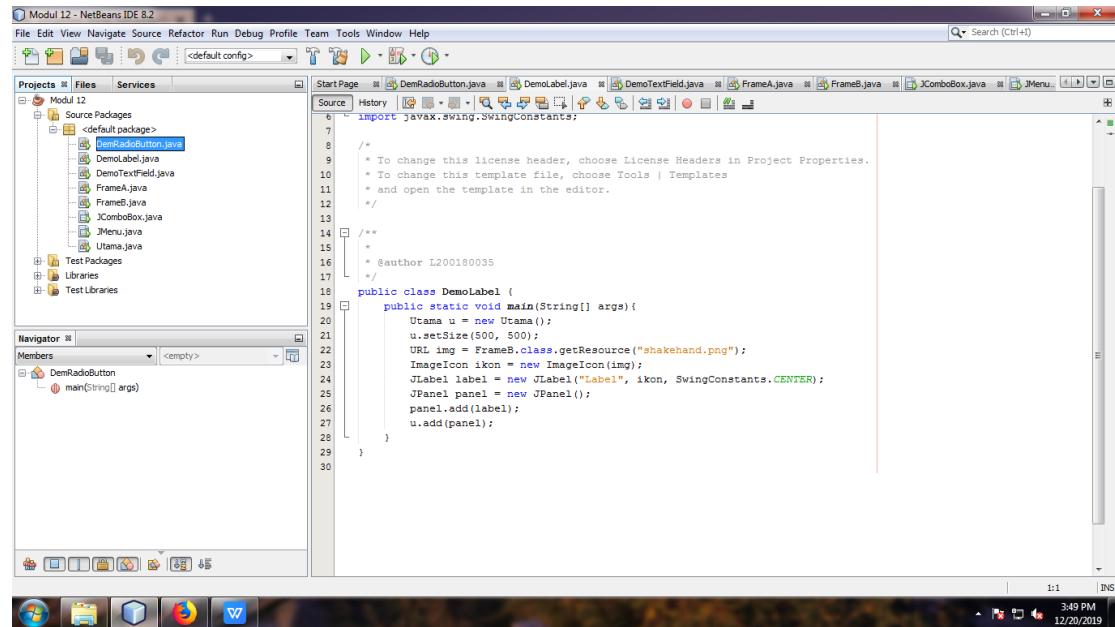
The screenshot shows the NetBeans IDE 8.2 interface with the following details:

- Title Bar:** Modul 12 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows a project named "Modul 12" with a single source package containing files: DemoRadioButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenuBar.java, and Utama.java.
- Navigator:** Shows the class "FrameA" selected, with its members: main(String[] args) and frameA().
- Source Editor:** Displays the Java code for "FrameA.java". The code creates a JFrame with a JButton labeled "OK".
- Bottom Status Bar:** Shows the date and time (12/20/2019, 3:47 PM), zoom level (1:1), and an "INS" indicator.

```
5  /*
6  *
7  *   /**
8  *    * @author L200180035
9  */
10 import java.awt.Container;
11 import javax.swing.JButton;
12 public class FrameA extends javax.swing.JFrame{
13     public FrameA(){
14         super("Frame dan Button");
15         setSize(100, 50);
16         setDefaultCloseOperation(EXIT_ON_CLOSE);
17         setVisible(true);
18         setLocationRelativeTo(null);
19     }
20     public static void main(String[] args){
21         FrameA fa = new FrameA();
22         Container kontainer = fa.getContentPane();
23         JButton jbtOK = new JButton("OK");
24         kontainer.add(jbtOK);
25     }
26 }
27
28 }
```



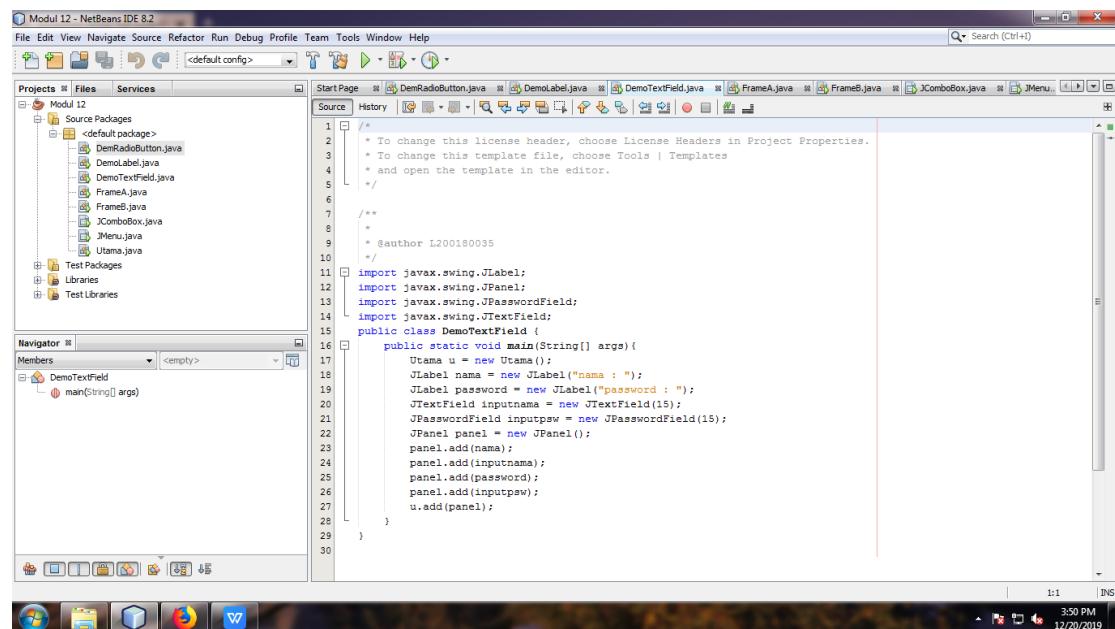
## Label



The screenshot shows the NetBeans IDE interface with the title "Modul 12 - NetBeans IDE 8.2". The Projects tab is selected, displaying a package named "Modul 12" containing several Java files: DemoRadioButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, and Utama.java. The Files tab is active, showing the source code for "DemoLabel.java". The code imports javax.swing.SwingConstants and defines a main method that creates a frame, adds a label with a specific icon, and displays it.

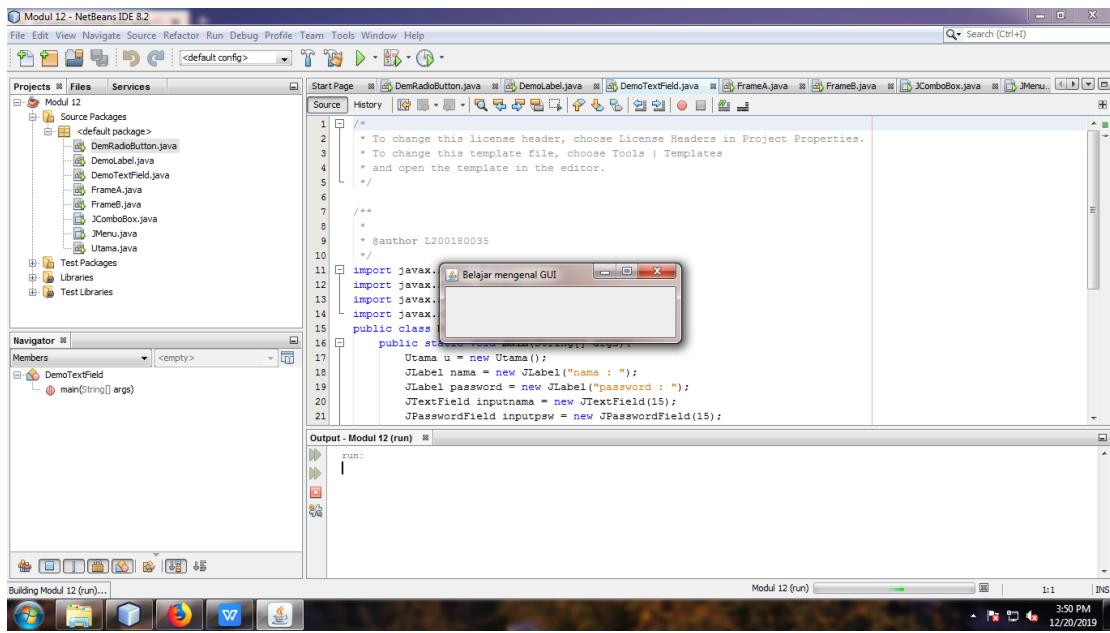
```
import javax.swing.SwingConstants;
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
public class DemoLabel {
    public static void main(String[] args){
        Utama u = new Utama();
        u.setSize(500, 500);
        URL img = FrameB.class.getResource("shakehand.png");
        ImageIcon ikon = new ImageIcon(img);
        JLabel label = new JLabel("Label", ikon, SwingConstants.CENTER);
        JPanel panel = new JPanel();
        panel.add(label);
        u.add(panel);
    }
}
```

## TextField

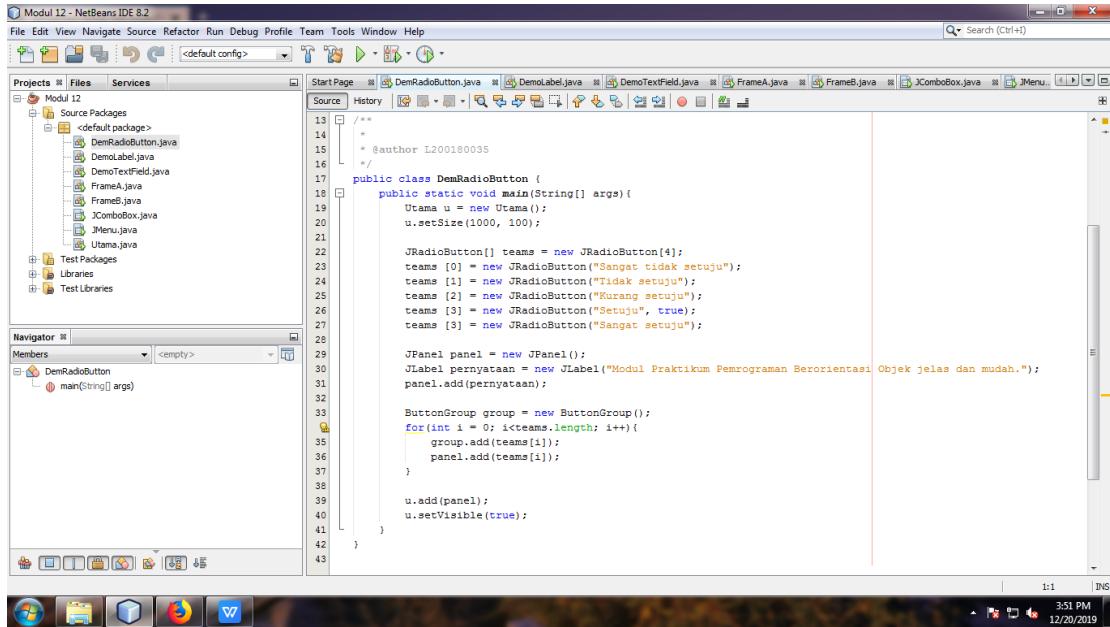


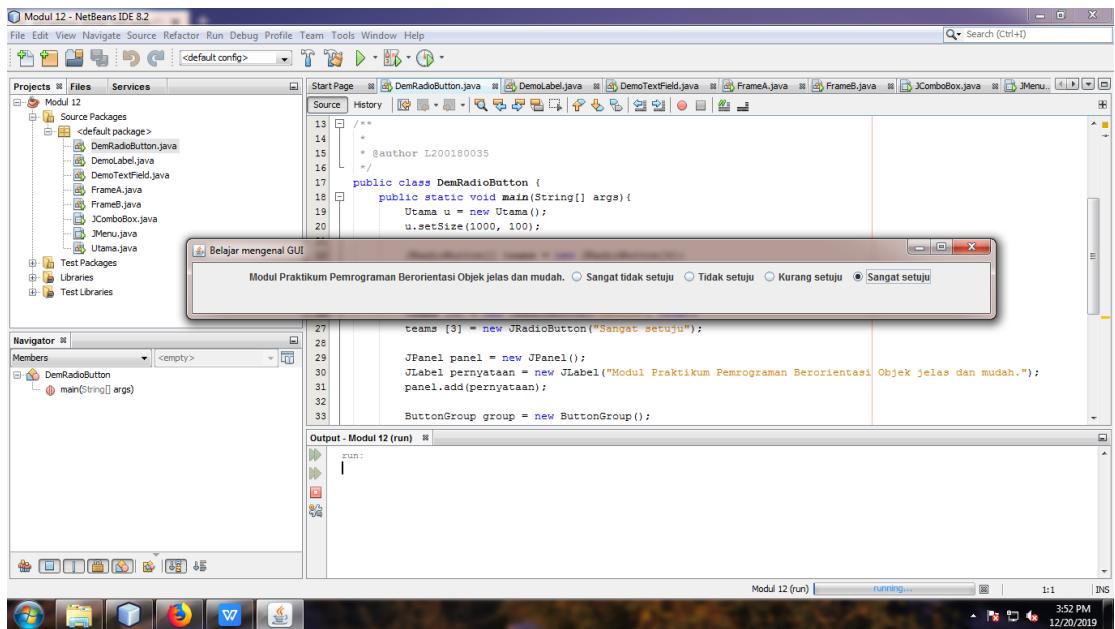
The screenshot shows the NetBeans IDE interface with the title "Modul 12 - NetBeans IDE 8.2". The Projects tab is selected, displaying a package named "Modul 12" containing several Java files: DemoRadioButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, and Utama.java. The Files tab is active, showing the source code for "DemoTextField.java". The code imports javax.swing.JLabel, javax.swing.JPanel, javax.swing.JPasswordField, and javax.swing.JTextField, and defines a main method that creates a frame with two text fields for name and password.

```
/*
 * 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.
 */
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JTextField;
public class DemoTextField {
    public static void main(String[] args){
        Utama u = new Utama();
        JLabel nama = new JLabel("nama : ");
        JLabel password = new JLabel("password : ");
        JTextField inputnama = new JTextField(15);
        JPasswordField inputpwd = new JPasswordField(15);
        JPanel panel = new JPanel();
        panel.add(nama);
        panel.add(inputnama);
        panel.add(password);
        panel.add(inputpwd);
        u.add(panel);
    }
}
```



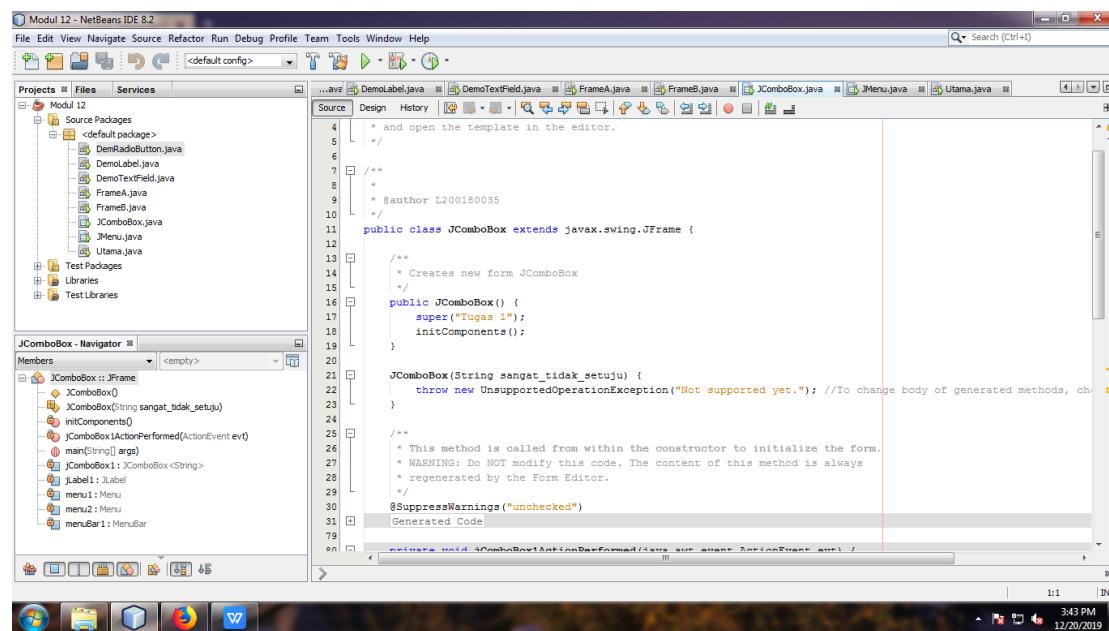
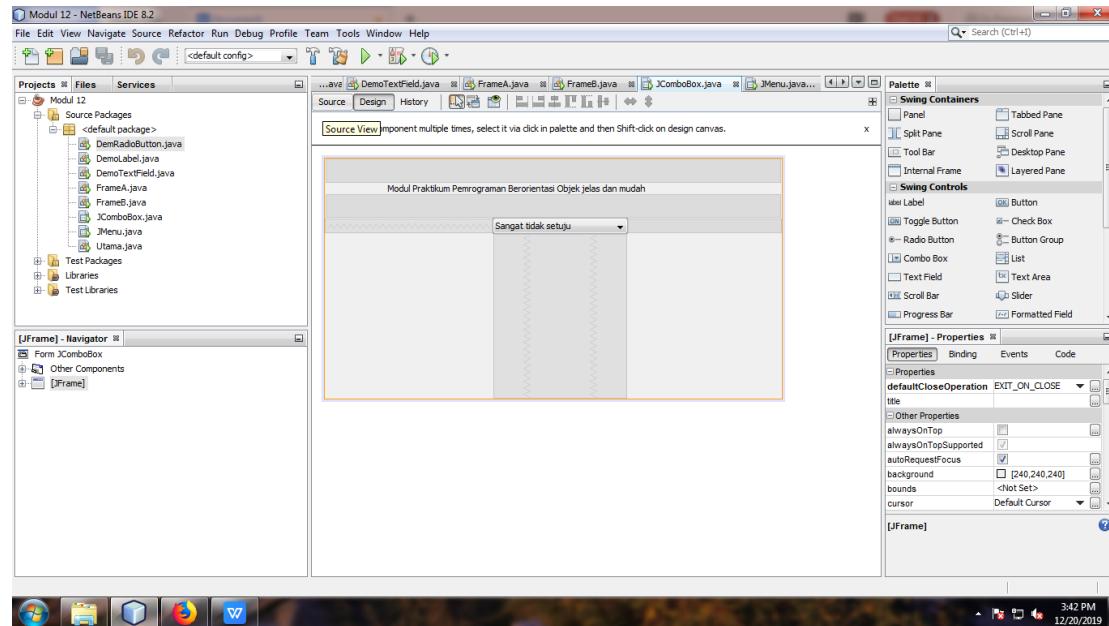
## Radio & CheckBox Button

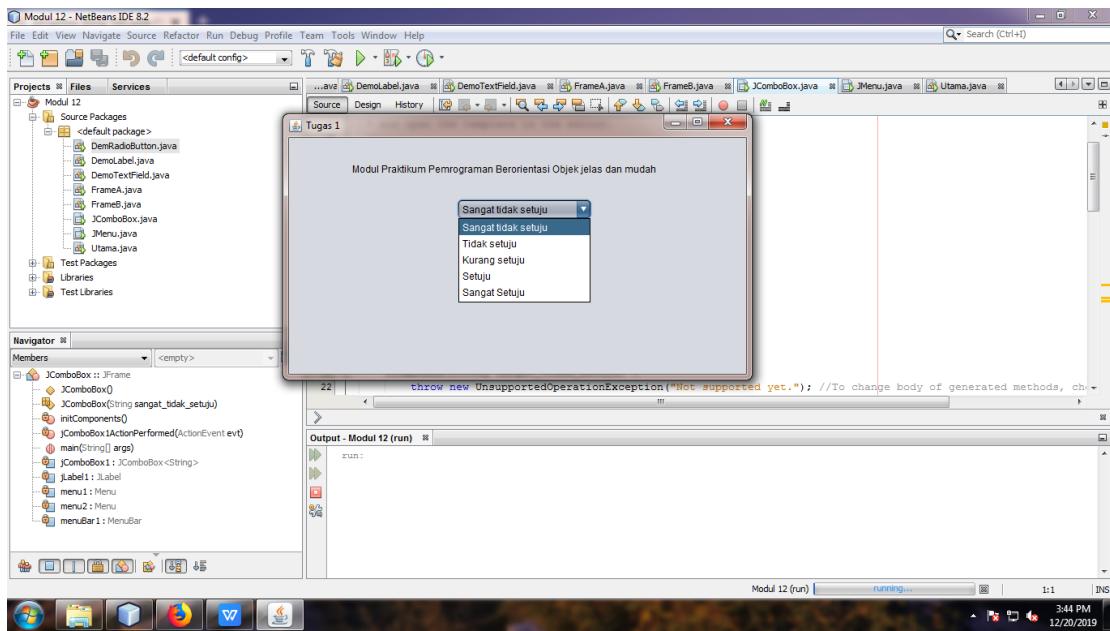




## TUGAS

### 1.





2.

