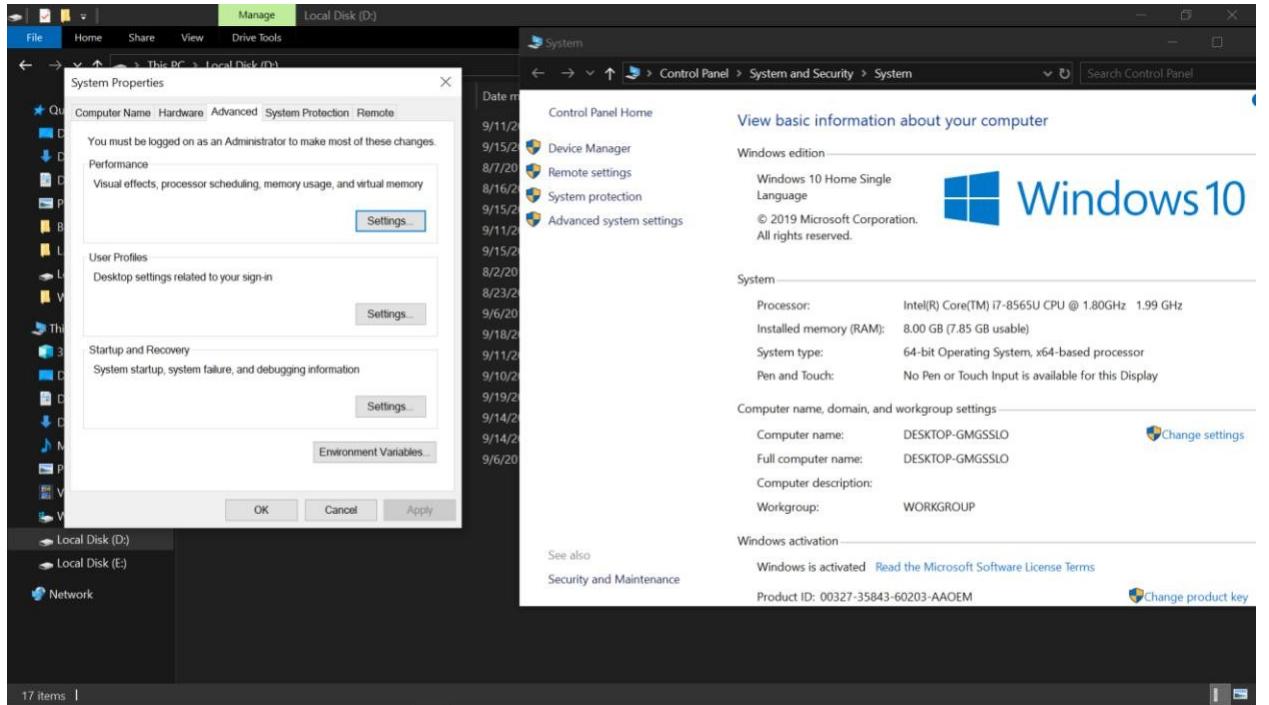
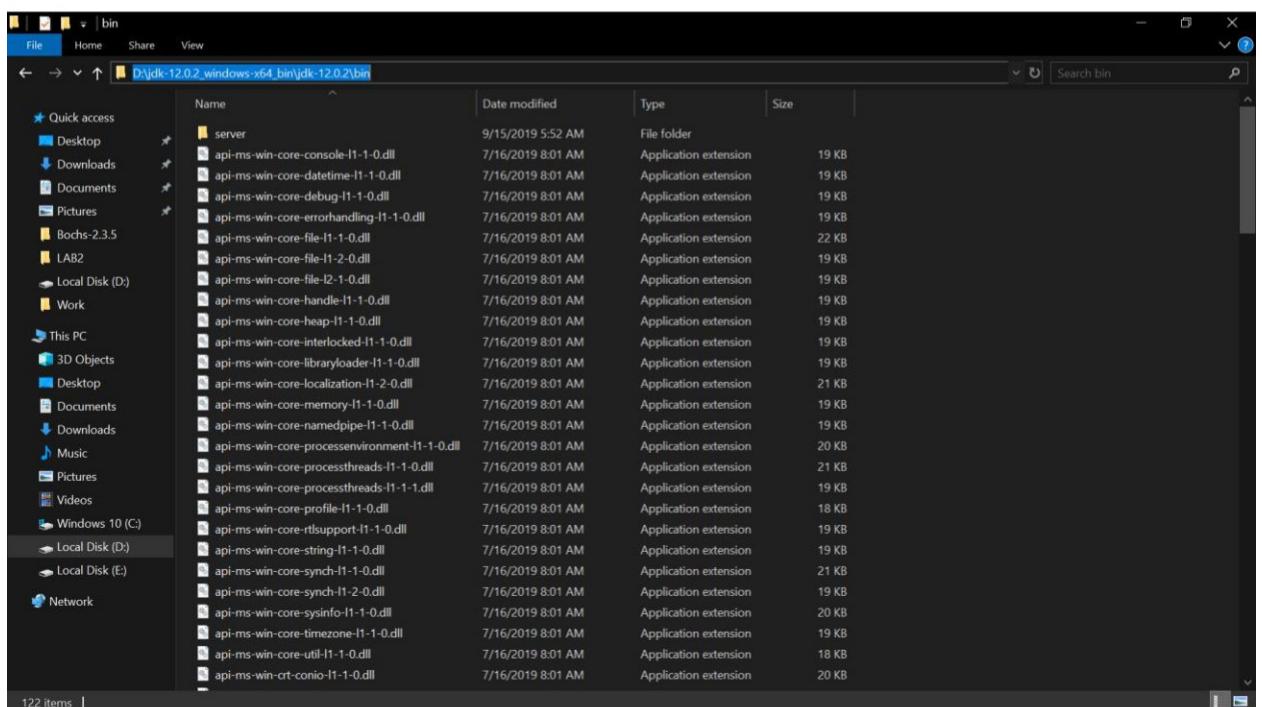
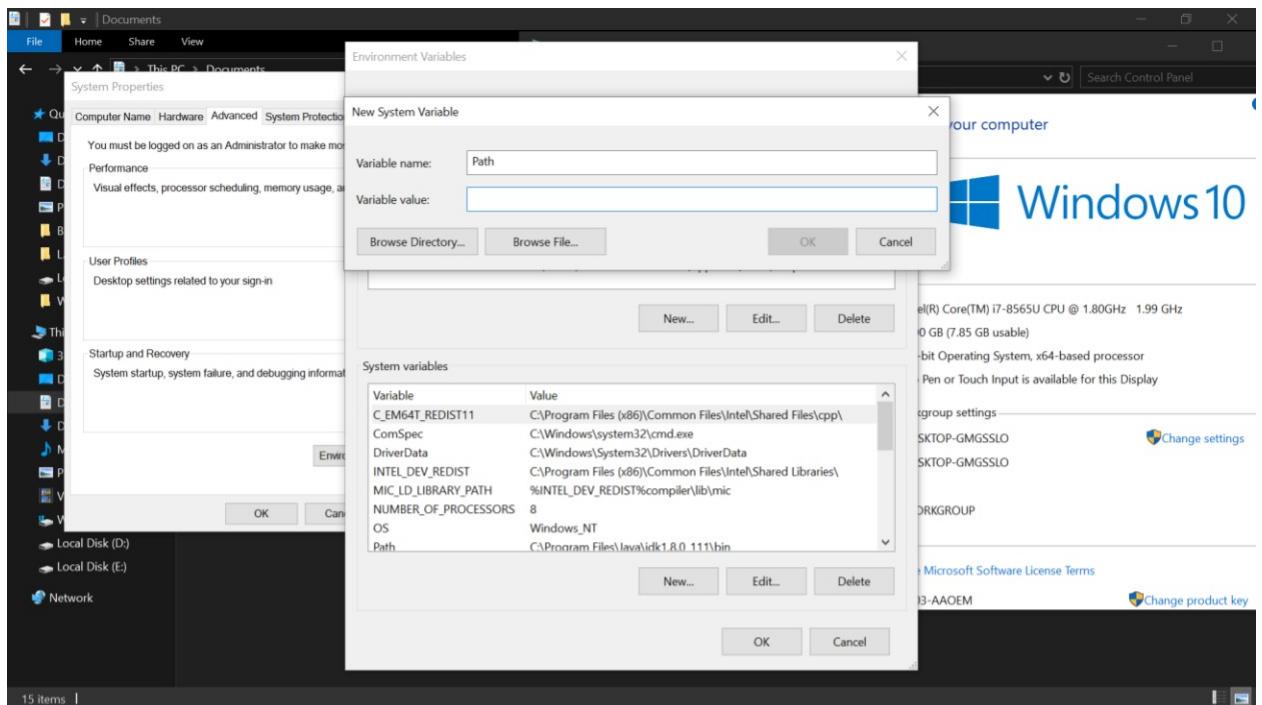
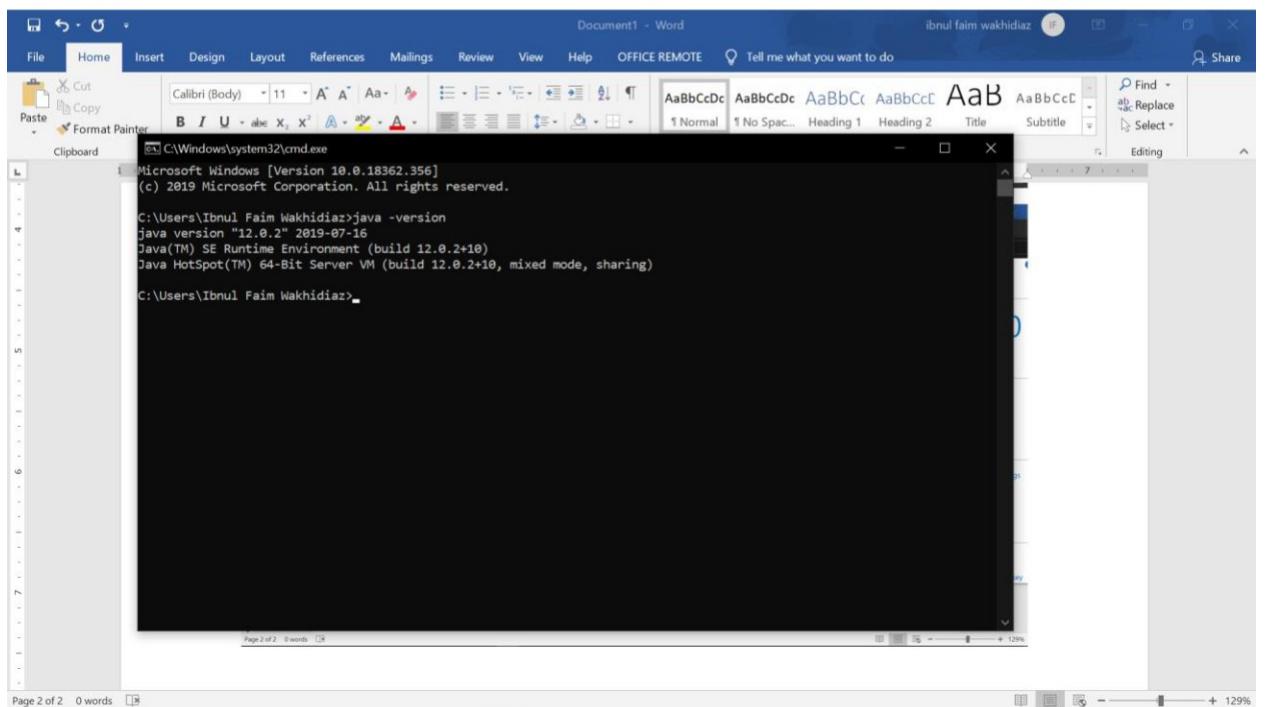
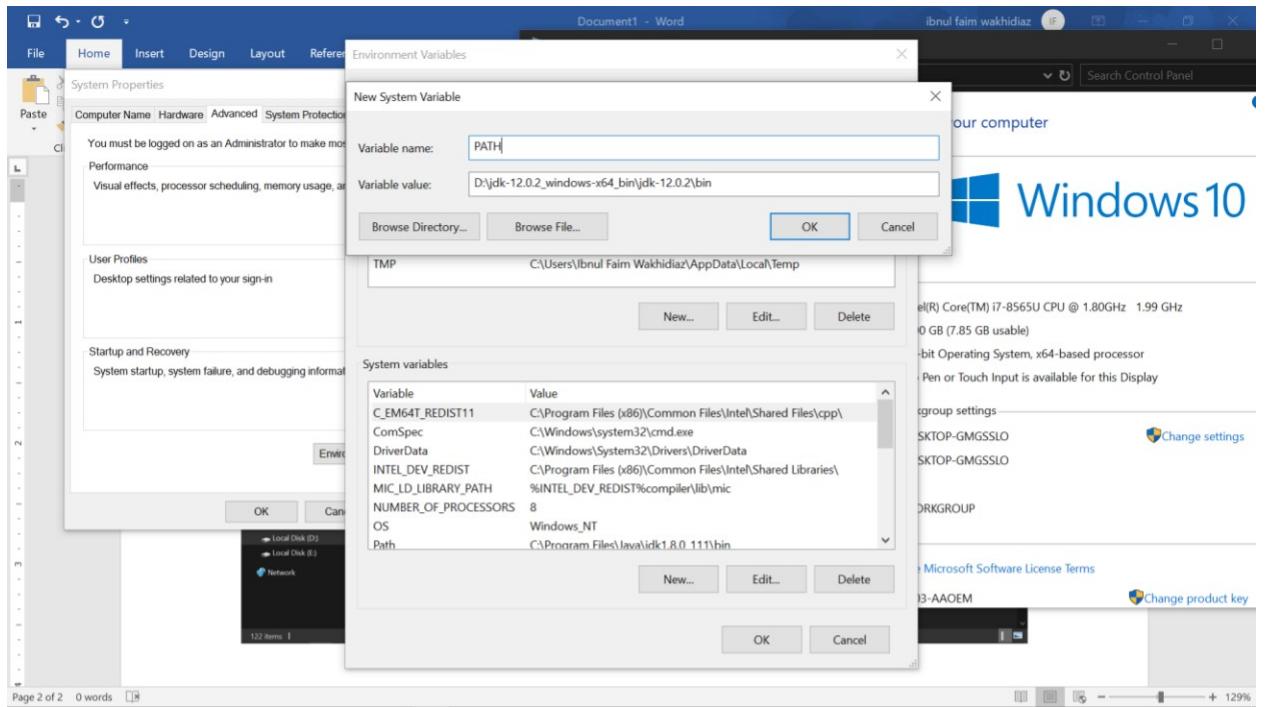


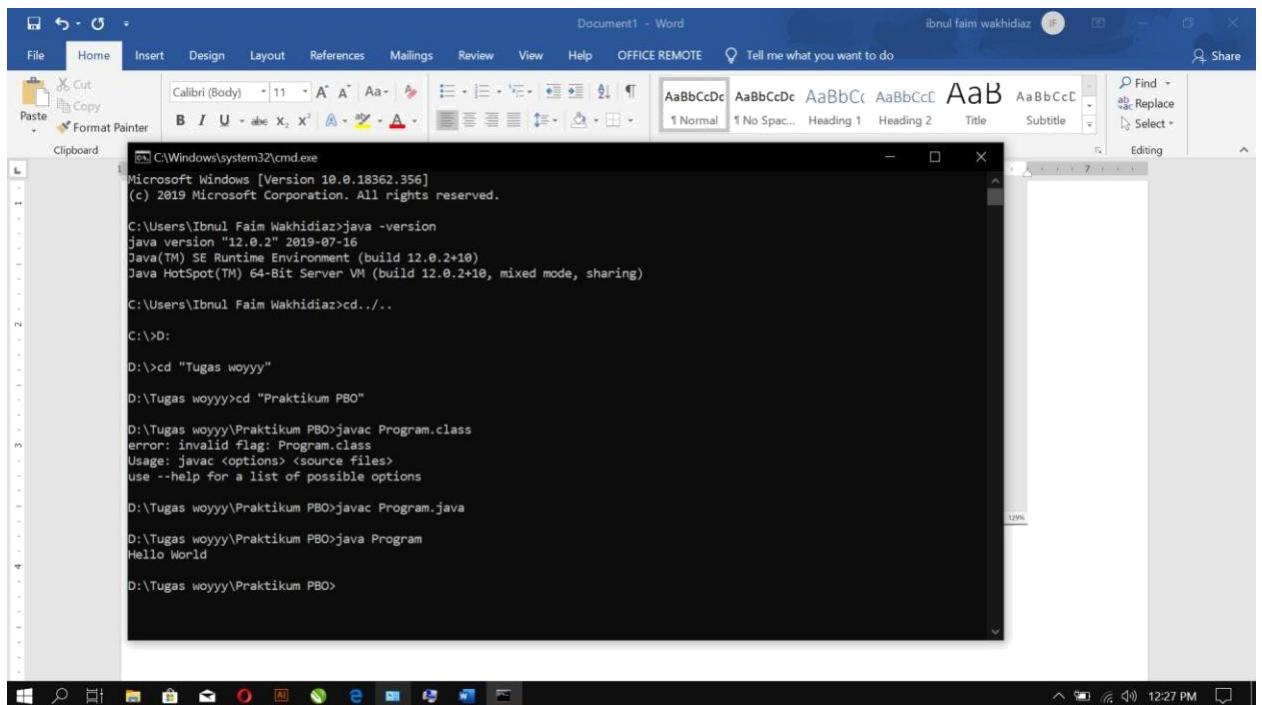
Nama : Ibnu Faim Wakhidaz
Kelas : B
NIM : L200180030

Modul 1









12:27 PM

Modul 2

1. Roti Demo

The image shows two side-by-side Notepad windows. The left window, titled 'Roti.java - Notepad', contains the following Java code:

```
Roti.java - Notepad
File Edit Format View Help
public class Roti {
    String warna;
    String rasa;
    int berat;
    double harga;

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

    void beriRasa(String rasaRoti){
        rasa = rasaRoti;
    }

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

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

    void infoRoti(){
        System.out.println(
            "Warna Roti : " + warna + "\n" +
            "Rasa Roti : " + rasa +"\n" +
            "Berat Roti : " + berat + "gr" +"\n" +
            "Harga Roti : Rp. " + harga);
    }
}
```

The right window, titled 'RotiDemo.java - Notepad', contains the following Java code:

```
RotiDemo.java - Notepad
File Edit Format View Help
public class RotiDemo{
    public static void main(String[] args){
        Roti roti = new Roti();
        roti.beriWarna ("hijau");
        roti.beriRasa ("Pandan");
        roti.timbangBerat(30);
        roti.hargaJual(6000);
        roti.infoRoti();
    }
}
```

The image shows a terminal window titled 'cmd.exe' with the following command-line session:

```
C:\Windows\system32\cmd.exe
D:\>cd "Tugas woyyy"
D:\Tugas woyyy>cd "Praktikum PBO"
D:\Tugas woyyy\Praktikum PBO>javac RotiDemo.java
D:\Tugas woyyy\Praktikum PBO>java RotiDemo
Warna Roti : hijau
Rasa Roti : Pandan
Berat Roti : 30gr
Harga Roti : Rp. 6000.0
D:\Tugas woyyy\Praktikum PBO>=
```

2. Hewan Demo

The image shows two side-by-side Notepad windows. The left window, titled 'HewanDemo.java - Notepad', contains the following Java code:

```
public class HewanDemo{
    public static void main(String[] args){
        Hewan hewan = new Hewan();
        hewan.namanya ("Harimau");
        hewan.jenisnya ("Kumbang");
        hewan.makanannya("Daging");
        hewan.kakinya(4);
        hewan.beratnya(100);
        hewan.infoHewan();
    }
}
```

The right window, titled 'Hewan.java - Notepad', contains the following Java code:

```
public class Hewan {
    String nama;
    String jenis;
    String makanan;
    int jumlahkaki;
    int berat;

    void namanya (String namaHewan){
        nama = namaHewan;
    }

    void jenisnya (String jenisHewan){
        jenis = jenisHewan;
    }

    void makanannya (String makananHewan){
        makanan = makananHewan;
    }
    void kakinya (int kakiHewan){
        jumlahkaki = kakiHewan;
    }

    void beratnya (int beratHewan){
        berat = beratHewan;
    }

    void infoHewan(){
        System.out.println(
            "Nama Hewan : " + nama + "\n" +
            "Jenis Hewan : " + jenis + "\n" +
            "Makanan : " + makanan + "\n" +
            "Jumlah Kaki : " + jumlahkaki + "\n" +
            "Berat : " + berat + " " + "Kg" + "\n");
    }
}
```

The image shows a terminal window with the following command-line interaction:

```
C:\Windows\system32\cmd.exe
D:\Tugas\woyyy\Praktikum PBO>javac HewanDemo.java
D:\Tugas\woyyy\Praktikum PBO>java HewanDemo
Nama Hewan : Harimau
Jenis Hewan : Kumbang
Makanan : Daging
Jumlah Kaki : 4
Berat : 100 Kg

D:\Tugas\woyyy\Praktikum PBO>
```

3. Car Demo

The image shows two side-by-side Notepad windows. The left window, titled 'Car.java - Notepad', contains the following Java code:

```
public class Car {
    int cadence;
    int speed;
    int gear;

    void changeCadence (int gantiIrama ){
        cadence = gantiIrama;
    }

    void speedUp (int tambahKecepatan){
        speed = tambahKecepatan;
    }

    void changeGear (int gantiGigi){
        gear = gantiGigi;
    }

    void printInfo(){
        System.out.println(
            "Cadence : " + cadence + "\n" +
            "Speed   : " + speed + " " + "Km/jam" + "\n" +
            "Gear    : " + gear + "\n");
    }
}
```

The right window, titled 'CarDemo.java - Notepad', contains the following Java code:

```
public class CarDemo{
    public static void main(String[] args){
        Car car1 = new Car();
        Car car2 = new Car();

        car1.changeCadence (50);
        car1.speedUp (20);
        car1.changeGear(2);
        car1.printInfo();

        car2.changeCadence (30);
        car2.speedUp (10);
        car2.changeGear(1);
        car2.printInfo();
    }
}
```

The image shows a terminal window with the following command-line session:

```
C:\Windows\system32\cmd.exe
D:\Tugas\woyyy\Praktikum PBO>javac CarDemo.java
D:\Tugas\woyyy\Praktikum PBO>java CarDemo
Cadence : 50
Speed   : 20 Km/jam
Gear    : 2

Cadence : 30
Speed   : 10 Km/jam
Gear    : 1

D:\Tugas\woyyy\Praktikum PBO>
```

Modul 3

1. Local Variable

```
public class LocalVariable {
    public void hitungUsia(){
        int umur = 0;
        int tahunSekarang = 2019;
        int tahunLahir = 1999;

        umur = tahunSekarang-tahunLahir;
        System.out.println("Usia saya :" + umur);
    }
    public void hitungBerat(){
        int beratBadan = 0;
        int beratLahir = 3;

        beratBadan = beratLahir+(umur/2); //Umur merupakan local variable sehingga tidak bisa
                                         //dipanggil karena hanya berada pada void hitungUsia()

        System.out.println("Berat badan saya : " + beratBadan);
    }
    public static void main(String[] args){
        LocalVariable locall = new LocalVariable();
        locall.hitungBerat();
    }
}
```

2. Instance Variable

```
package modul3.pkg1;
public class InstanceVariable {
    int umur = 20;
    void firstMethod(){
        int umur = 0;
        int tahunSekarang = 2019;
        int tahunLahir = 2000;

        umur = tahunSekarang-tahunLahir;
        System.out.println("Usia saya :" + umur);
    }
    void secondMethod(){
        int beratBadan = 0;
        int beratLahir = 3;
        int tahunSekarang = 2019;
        int tahunLahir = 2000;

        beratBadan = beratLahir+(umur/2);
        System.out.println("Berat badan saya : " + beratBadan);
    }
    public static void main(String[] args){
        InstanceVariable insl = new InstanceVariable();
        insl.firstMethod();
        insl.secondMethod();

    }
}
```

Hasil Setelah Dirun:

```
run:  
Usia saya :19  
Berat badan saya : 13  
BUILD SUCCESSFUL (total time: 0 seconds)
```

3. Static Variable

```
package modul3.pkg1;  
public class StaticVariable {  
    public static char akreditasi;  
    public static final String jurusan = "Informatika";  
  
    void firstMethod(){  
        System.out.println(jurusan);  
    }  
    void secondMethod(){  
        System.out.println("Akreditasi :" + akreditasi);  
    }  
    public static void main(String[] args){  
        StaticVariable.akreditasi = 'B';  
        StaticVariable sv = new StaticVariable();  
        sv.firstMethod();  
        sv.secondMethod();  
    }  
  
}  
  
t - MODUL3(1) (run) X
```

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

4. Methon non-void

```
package modul3.pkg1;
public class NonVoidMethod {
    String nama;
    String nim;
    public String getNama(String name){
        nama = name;
        return nama;
    }
    public String getNIM(String nem){
        nim = nem;
        return nim;
    }
    public static void main(String[] args){
        NonVoidMethod nvm = new NonVoidMethod();
        nvm.getNama("Ibnul Faim Wakhidiaz");
        System.out.println(nvm.nama);
        nvm.getNIM("L200180030");
        System.out.println(nvm.nim);
    }
}

nodul3.pkg1.NonVoidMethod > ⚡ main >
ut - MODUL3(1) (run) ×
run:
Ibnul Faim Wakhidiaz
L200180030
BUILD SUCCESSFUL (total time: 0 seconds)
```

5. Parameter Method

```
package modul3.pkg1;
public class ParameterMethod {
    String nama;
    public String setNama(String nama){
        return this.nama = nama;
    }
    public static void main(String[] args){
        ParameterMethod pm = new ParameterMethod();
        pm.setNama("Diaz");
        System.out.println(pm.nama);
    }
}
```

Hasil :

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

6. Method void

```
package modul3.pkg1;
public class MethodVoid {
    int hour,minute,second;

    public void duration(int hour,int minute,int second){
        this.hour = hour;
        this.minute = minute;
        this.second = second;
    }
    public void info(){
        System.out.println("Total waktu \n" + hour + "jam" + minute+"menit"+second+"detik");
    }
    public static void main(String[] args){
        MethodVoid mv = new MethodVoid();
        mv.duration(1,30,15);
        mv.info();
    }
}
```

Hasil :

```
run:
Total waktu
1jam30menit15detik
BUILD SUCCESSFUL (total time: 0 seconds)
```

Latihan 3

```
package modul3.pkg1;
public class Pegawai {
    String nama;
    String NIP;
    double gaji;
    public String setNama(String nama){
        return this.nama = nama; }
    public String setNIP(String NIP){
        return this.NIP = NIP;
    }
    public double setgaji(double gaji){
        return this.gaji= gaji;
    }
    public static void main(String[] args){
        Pegawai pg1 = new Pegawai();
        Pegawai pg2 = new Pegawai();
        Pegawai pg3 = new Pegawai();
        Pegawai pg4 = new Pegawai();
        Pegawai pg5 = new Pegawai();

        pg1.setNama("Diaz");
        System.out.println(pg1.nama);
        pg1.setNIP("12166");
        System.out.println(pg1.NIP);
        pg1.setgaji(15.5);
        System.out.println(pg1.gaji);

        pg2.setNama("Ibnul");
        System.out.println(pg2.nama);
        pg2.setNIP("12177");
        System.out.println(pg2.NIP);
        pg2.setgaji(20.5);
        System.out.println(pg2.gaji);

        pg3.setNama("Budi");
        System.out.println(pg3.nama);
        pg3.setNIP("12188");
        System.out.println(pg3.NIP);
        pg3.setgaji(25.5);
        System.out.println(pg3.gaji);

        pg4.setNama("Dimas");
        System.out.println(pg4.nama);
        pg4.setNIP("12199");
        System.out.println(pg4.NIP);
        pg4.setgaji(30.5);
        System.out.println(pg4.gaji);

        pg5.setNama("Bayu");
        System.out.println(pg5.nama);
        pg5.setNIP("1300");
        System.out.println(pg5.NIP);
        pg5.setgaji(32.5);
        System.out.println(pg5.gaji);
    }
}
```

Hasil Setelah dirun :

```
run:
Diaz
12166
15.5
Ibnul
12177
20.5
Budi
12188
25.5
Dimas
12199
30.5
Bayu
1300
32.5
BUILD SUCCESSFUL (total time: 0 seconds)
```

Pekerjaan Rumah

```
package modul3.pkg1;
public class Nilai {
    double nilaiUTS ;
    double nilaiUAS;
    double nilaiTugas;
    double nilaiTotal;

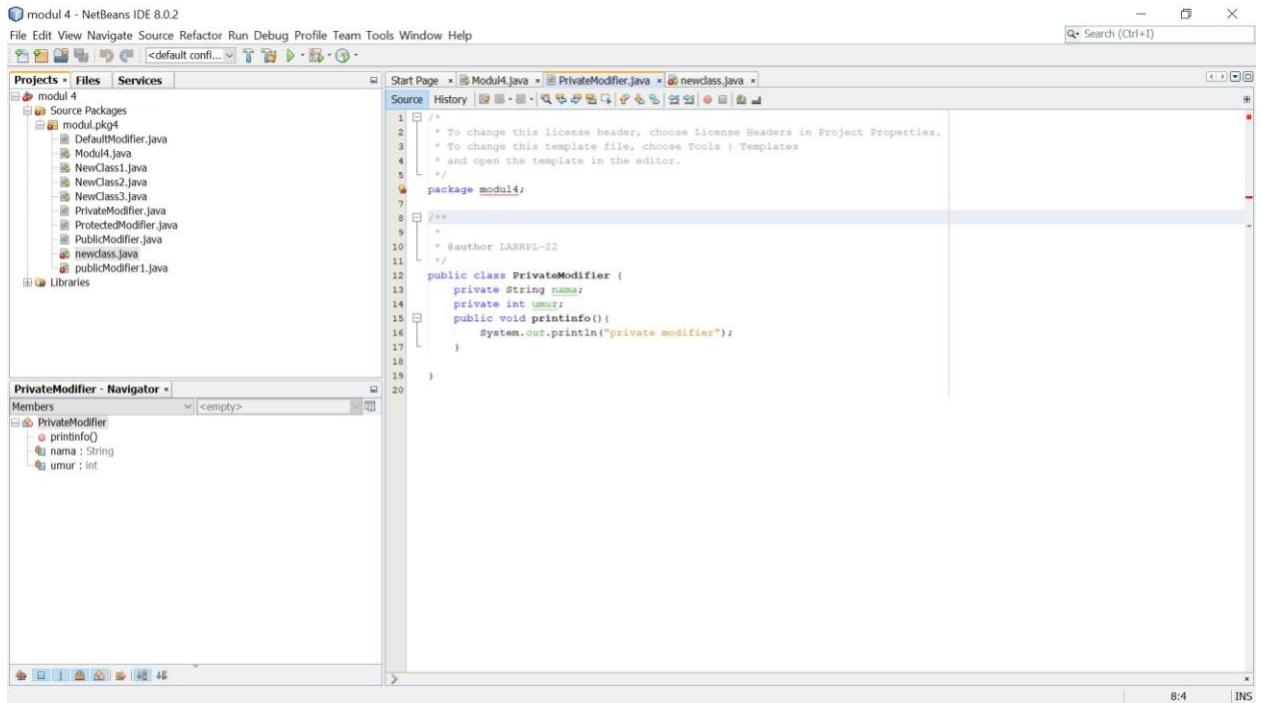
    public void tambah(double nilaiUTS,double nilaiUAS,double nilaiTugas){
        this.nilaiUTS = nilaiUTS;
        this.nilaiUAS = nilaiUAS;
        this.nilaiTugas = nilaiTugas;
    }
    public double nilaiTotal(){
        return nilaiTotal =(nilaiUTS+nilaiUAS+nilaiTugas)/3;
    }
    public void info(){
        System.out.println("Total nilai adalah : " + nilaiTotal);
    }
    public static void main(String[] args){
        Nilai nl = new Nilai();
        nl.tambah(70, 80.0, 85.5);
        nl.nilaiTotal();
        nl.info();
    }
}
```

Hasil :

```
run:
Total nilai adalah : 78.5
BUILD SUCCESSFUL (total time: 0 seconds)
```

Modul 4

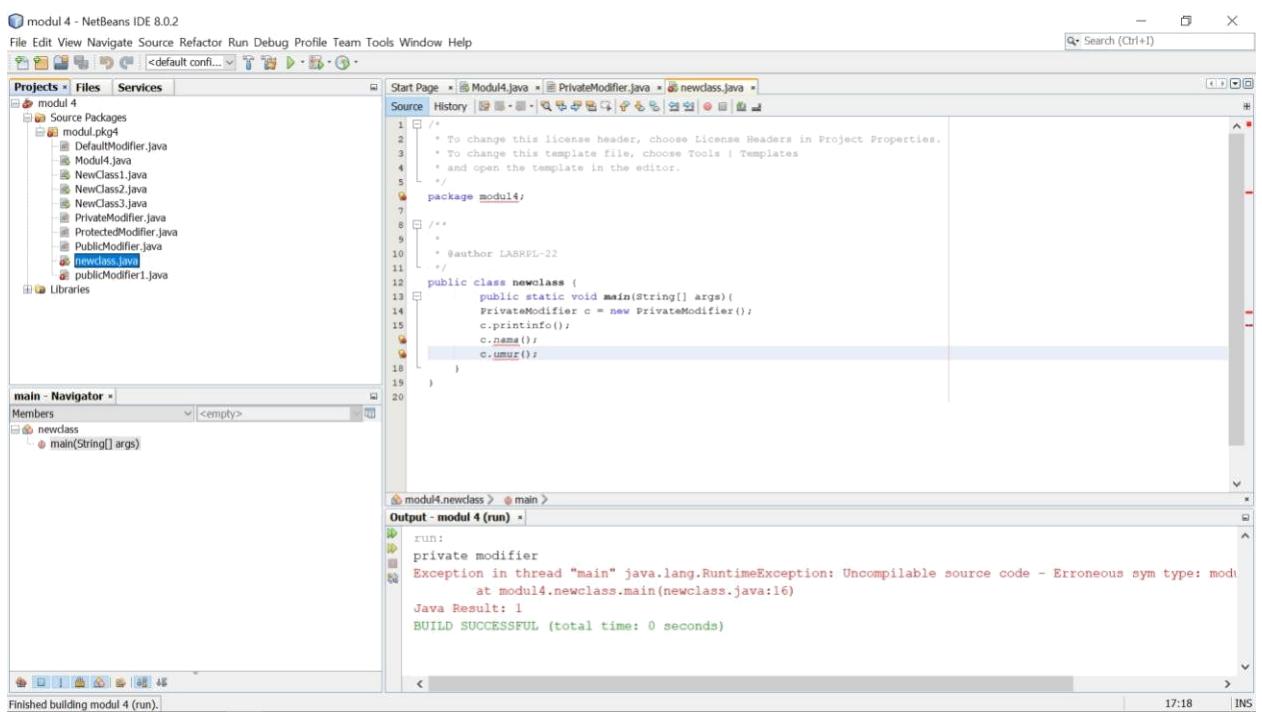
1. Private Modifier



The screenshot shows the NetBeans IDE interface with the title "modul 4 - NetBeans IDE 8.0.2". The "Source" tab is selected in the editor. The code in PrivateModifier.java is:

```
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-22
11  */
12 public class PrivateModifier {
13     private String nama;
14     private int umur;
15     public void printinfo(){
16         System.out.println("private modifier");
17     }
18 }
19 
```

The "Projects" panel shows a module named "modul 4" containing several source packages like "modul.pkg4" and "modul4". The "Navigator" panel shows the members of the PrivateModifier class: "printinfo()", "nama : String", and "umur : int".



The screenshot shows the NetBeans IDE interface with the title "modul 4 - NetBeans IDE 8.0.2". The "Source" tab is selected in the editor. The code in newclass.java is:

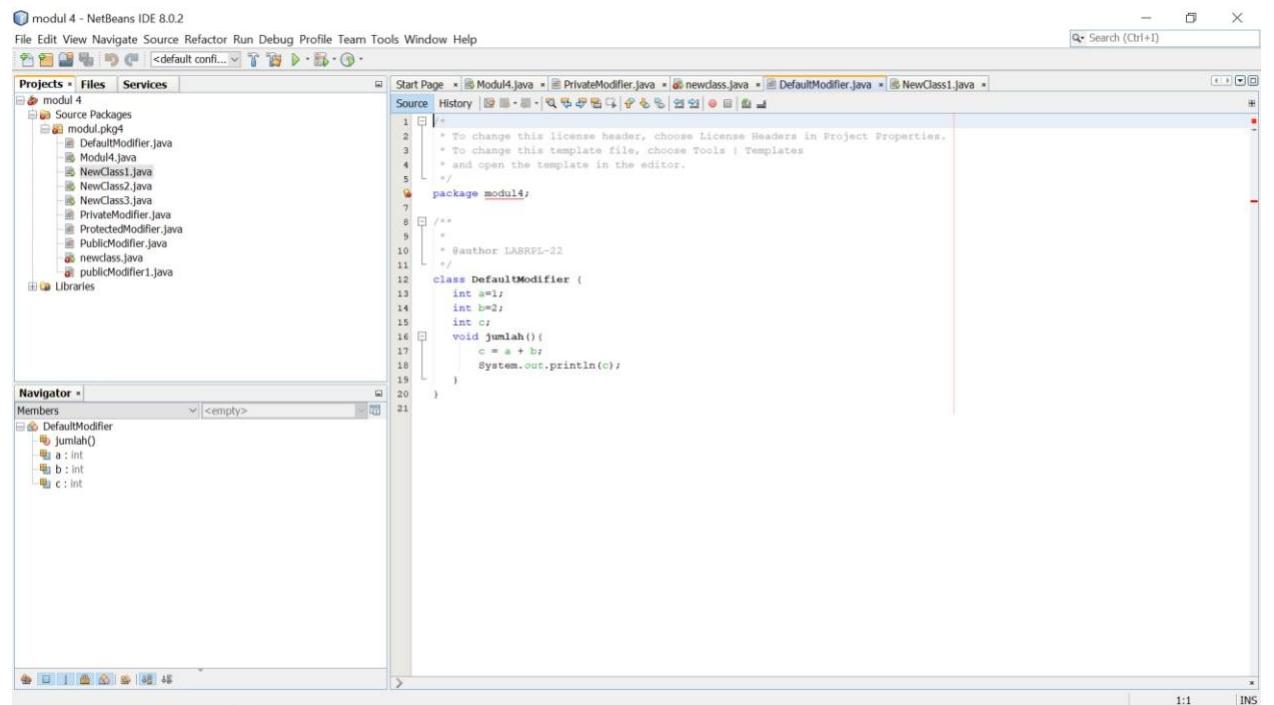
```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6  package modul4;
7
8  /**
9   * 
10  * @author LABRPL-22
11  */
12 public class newclass {
13     public static void main(String[] args){
14         PrivateModifier c = new PrivateModifier();
15         c.printinfo();
16         c.nama();
17         c.umur();
18     }
19 }
20 
```

The "Projects" panel shows the same module structure as the first screenshot. The "Navigator" panel shows the "main" method of the newclass class. The "Output" panel shows the results of running the module:

```
run:
private modifier
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - Erroneous sym type: mod
        at modul4.newclass.main(newclass.java:16)
Java Result: 1
BUILD SUCCESSFUL (total time: 0 seconds)
```

Variable tersebut tidak dapat diakses di class lain karena bertipe private yang artinya hanya bisa diakses oleh class itu sendiri

2. Default Modifier



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

- Project Explorer (Projects tab):** Shows a project named "modul 4" containing a source package "modul.pkg4" with files: DefaultModifier.java, Modul4.java, NewClass1.java, NewClass2.java, NewClass3.java, PrivateModifier.java, ProtectedModifier.java, PublicModifier.java, newclass.java, and publicModifier1.java.
- Code Editor (Source tab):** Displays the content of DefaultModifier.java. The code defines a class DefaultModifier with a constructor jumlah() that adds two integers (a and b) and prints the result.
- Navigator (Members tab):** Shows the members of the DefaultModifier class: jumlah(), a: int, b: int, and c: int.
- Bottom Status Bar:** Shows the status "1:1 INS".

```
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 modul4;
6
7 /**
8 * 
9 * @author LABRPL-22
10 */
11 class DefaultModifier {
12     int a=1;
13     int b=2;
14     int c;
15     void jumlah(){
16         c = a + b;
17         System.out.println(c);
18     }
19 }
20
21
```

modul 4 - NetBeans IDE 8.0.2

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

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

Projects **Files** **Services**

modul 4

- Source Packages
 - modul.pkg4
 - DefaultModifier.java
 - Modul4.java
 - NewClass1.java
 - NewClass2.java
 - NewClass3.java
 - PrivateModifier.java
 - ProtectedModifier.java
 - PublicModifier.java
 - newdlass.java
 - publicModifier1.java
- Libraries

Navigator Members: NewClass1 <empty>

NewClass1 main(String[] args)

Output - modul 4 (run)

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

Finished building modul 4 (run).

modul 4 - NetBeans IDE 8.0.2

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

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

Projects **Files** **Services**

modul 4

- Source Packages
 - modul.pkg4
 - DefaultModifier.java
 - Modul4.java
 - NewClass1.java
 - NewClass2.java
 - NewClass3.java
 - PrivateModifier.java
 - ProtectedModifier.java
 - PublicModifier.java
 - newdlass.java
 - publicModifier1.java
 - oi
 - DefaultModifier.java
 - Oi.java
- Libraries

main - Navigator Members: Oi <empty>

Oil main(String[] args)

Output - modul 4 (run)

```
oi.Oi > @ main >
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - Erroneous sym type: oi.I
|   at oi.Oi.main(Oi.java:15)
Java Result: 1
BUILD SUCCESSFUL (total time: 0 seconds)
```

3. Protected Modifier

The screenshot shows the NetBeans IDE interface with the title bar "modul 4 - NetBeans IDE 8.0.2". The main window displays the code for `ProtectedModifier.java` in the Source tab:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6 package modul4;
7
8 /**
9 *
10 * Author LABRPL-22
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 a message");
18     }
19 }
20
21 }
```

The Navigator panel on the left shows the members of the `protectedModifier` class: `printInfo()` and `sendMessage()`.

The screenshot shows the NetBeans IDE interface with the title bar "modul 4 - NetBeans IDE 8.0.2". The main window displays the code for `NewClass2.java` in the Source tab:

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6 package modul4;
7
8 /**
9 *
10 * Author LABRPL-22
11 */
12 public class NewClass2 {
13     public static void main(String[] args){
14         protectedModifier p = new protectedModifier();
15         p.printInfo();
16         p.sendMessage();
17     }
18 }
19 
```

The Navigator panel on the left shows the member of the `NewClass2` class: `main(String[] args)`. The Output panel at the bottom shows the run results:

```
run:
Protected Modifier
This is a message
BUILD SUCCESSFUL (total time: 0 seconds)
```

4. Public Modifier

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

- Title Bar:** modul 4 - NetBeans IDE 8.0.2
- Toolbar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Projects Tab:** modul 4
- Source Packages:** modul.pkg4 (DefaultModifier.java, Modul4.java, NewClass1.java, NewClass2.java, NewClass3.java, NewClass4.java, PrivateModifier.java, ProtectedModifier.java, PublicModifier.java, newdass.java, publicModifier1.java), ol (DefaultModifier.java, OI.java)
- Navigator Tab:** a - Navigator
- Code Editor:** PublicModifier.java

```
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 modul4;
6
7 /**
8  * @author LABRPL-22
9  */
10 public class PublicModifier {
11     public int a = 2;
12     public int b = 5;
13     public int c = 9;
14     public void kali(){
15         int d = a*b*c;
16         System.out.println("Hasil kali = " + d);
17     }
18 }
19
20 }
```

- Status Bar:** modul4.PublicModifier > a > 13:22 INS

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

- Title Bar:** modul 4 - NetBeans IDE 8.0.2
- Toolbar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Projects Tab:** modul 4
- Source Packages:** modul.pkg4 (DefaultModifier.java, Modul4.java, NewClass1.java, NewClass2.java, NewClass3.java, NewClass4.java, PrivateModifier.java, ProtectedModifier.java, PublicModifier.java, newdass.java, publicModifier1.java), modul4 (DefaultModifier.java, OI.java), ol (DefaultModifier.java, OI.java)
- Navigator Tab:** Navigator
- Code Editor:** NewClass4.java

```
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 modul4;
6
7 import modul4.PublicModifier;
8
9 /**
10  * @author IbnuL Faim Wakhidiaz
11  */
12 public class NewClass4 {
13     public static void main (String[] args){
14         PublicModifier b = new PublicModifier();
15         b.kali();
16     }
17 }
18
19 }
```

- Output Tab:** Output - modul 4 (run) ->

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

- Status Bar:** Finished building modul 4 (run). 8:23 INS

modul 4 - NetBeans IDE 8.0.2

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

Projects Files Services

...va Ol.java ProtectedModifier.java NewClass2.java PublicModifier.java NewClass4.java NewClass3.java publicModifier1.java

Source History

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package modul.pkg4;
7
8 /**
9 *
10 * @author LABRPL-22
11 */
12 public class publicModifier1 {
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 f = a+b+c;
22         System.out.println("Hasil tambah = "+f);
23     }
24     public void kurang(){
25         int g = a-b-c;
26         System.out.println("Hasil kurang = " + g);
27     }
28     public void bagi(){
29         int h = a/b/c;
30         System.out.println("Hasil Bagi = "+h);
31     }
32     public void rata(){
33         int j = (a+b+c)/3;
34         System.out.println("Hasil Rata-Rata =" +j);
35     }
36 }
37

```

bagi - Navigator

Members <empty>

- publicModifier1
 - bagi()
 - kali()
 - kurang()
 - rata()
 - tambah()
 - a : int
 - b : int
 - c : int

modul.pkg4.publicModifier1 > bagi > h >

29:18 INS

modul 4 - NetBeans IDE 8.0.2

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

Projects Files Services

...va Ol.java ProtectedModifier.java NewClass2.java PublicModifier.java NewClass4.java NewClass3.java publicModifier1.java

Source History

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package modul.pkg4;
7
8 /**
9 *
10 * @author LABRPL-22
11 */
12 public class NewClass3 {
13     public static void main(String[] args){
14         publicModifier1 k = new publicModifier1();
15         k.kali();
16         k.tambah();
17         k.kurang();
18         k.bagi();
19         k.rata();
20     }
21 }
22

```

Navigator

Members <empty>

- NewClass3
 - main(String[] args)

Output - modul 4 (run) :

```

run:
Hasil kali = 90
Hasil tambah = 16
Hasil kurang = -12
Hasil Bagi = 0
Hasil Rata-Rata =5
BUILD SUCCESSFUL (total time: 0 seconds)

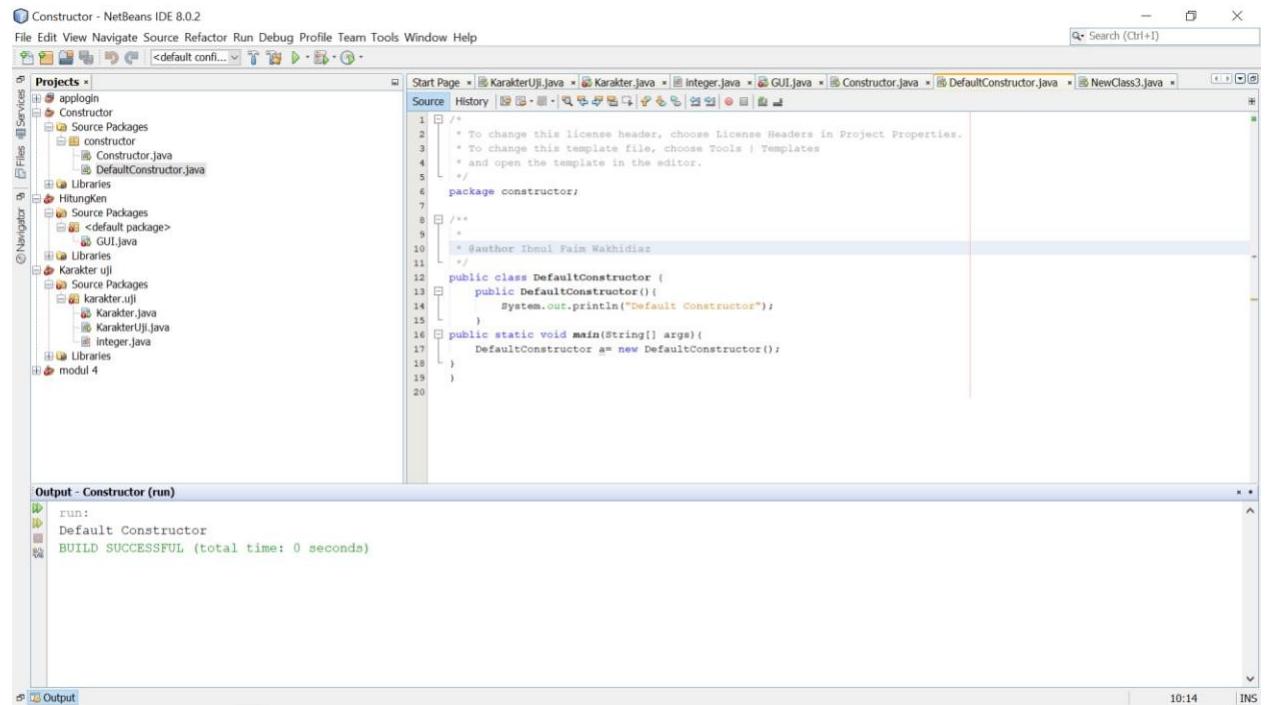
```

Finished building modul 4 (run).

6:1 INS

Modul 5

Default Constructor



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

public class DefaultConstructor {
    public DefaultConstructor() {
        System.out.println("Default Constructor");
    }
    public static void main(String[] args) {
        DefaultConstructor a= new DefaultConstructor();
    }
}
```

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

- File Menu:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Search Bar:** Search (Ctrl+I).
- Projects Tab:** Shows the project structure with packages like applogic, Constructor, HitungKem, KarakterUji, and modul 4.
- Source Editor:** Displays the Java code for DefaultConstructor.java.
- Output Tab:** Shows the build log output.
- Status Bar:** 10:14 | INS.

Latihan 1

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

- File Menu:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows the project structure with packages like applogic, Constructor, and Karakter UJI.
- Source Editor:** Displays the Java code for `Latihan1.java`. The code defines a class `Latihan1` with a constructor that prints the name, NIM, and address.

```
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 constructor;
7
8  /**
9   *
10  * @author Ibmul Faim Wakhidiaz
11  */
12 public class Latihan1 {
13     String nama = "Ibmul Faim Wakhidiaz";
14     String nim = "L200180030";
15     String alamat = "Kudus";
16     public Latihan1(){
17         System.out.println("Nama = " + nama);
18         System.out.println("NIM = " + nim);
19         System.out.println("Alamat = " + alamat);
20     }
21 }
```

- Output Tab:** Shows the output of the run command.

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

- File Menu:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows the project structure with packages like applogic, Constructor, and Karakter UJI.
- Source Editor:** Displays the Java code for `main.java`. It contains a static main method that creates an instance of `Latihan1`.

```
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 constructor;
7
8  /**
9   *
10  * @author Ibmul Faim Wakhidiaz
11  */
12 public class main {
13     public static void main(String[] args){
14         Latihan1 k = new Latihan1();
15     }
16 }
```

- Output Tab:** Shows the output of the run command, displaying the printed values for name, NIM, and address.
- Status Bar:** Shows the time as 14:37 and the status as INS.

Parameterized

Constructor - NetBeans IDE 8.0.2

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

Projects Navigator Files Services

Source History

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6 package constructor;  
7  
8 /**  
9  *  
10 * @author Ibmul Faim Wakhidiaz  
11 */  
12 public class ParamCons {  
13     String nama; nim;  
14     int semester;  
15     public ParamCons(String nama, int semester, String nim){  
16         this.nama = nama;  
17         this.semester = semester;  
18         this.nim = nim;  
19     }  
20     public void info(){  
21         System.out.println("Nama : " + nama+"\n"+ "Semester : "+semester+"\n"+ "NIM : "+nim);  
22     }  
23 }  
24
```

Output

24:1 INS

Constructor - NetBeans IDE 8.0.2

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

Projects Navigator Files Services

Source History

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6 package constructor;  
7  
8 /**  
9  *  
10 * @author Ibmul Faim Wakhidiaz  
11 */  
12 public class ConsAccess {  
13     public static void main(String[] args){  
14         ParamCons j = new ParamCons("Diaz", 3, "L200180030");  
15         j.info();  
16     }  
17 }  
18
```

Output - Constructor (run)

```
run:  
Nama : Diaz  
Semester : 3  
NIM : L200180030  
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

15:18 INS

Latihan 2

Constructor - NetBeans IDE 8.0.2

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

Projects

Source History

```
8  */
9  * @author Ibmul Faim Wakhidiaz
10 */
11 /**
12  * public class Buku {
13  *     String namaPengarang, judulBuku, nama;
14  *     int tahunTerbit, cetakanKe, code;
15  *     double hargaJual;
16  */
17  * public Buku(String nama){
18  *     this.nama = nama;
19  *     System.out.println("Selamat Datang : "+nama);
20  */
21  * public Buku(int code){
22  *     this.code = code;
23  *     System.out.println("User Code : "+code+"\n");
24  */
25  * public Buku(String namaPengarang, String judulBuku, int tahunTerbit, int cetakanKe, double hargaJual){
26  *     this.namaPengarang = namaPengarang;
27  *     this.judulBuku = judulBuku;
28  *     this.tahunTerbit = tahunTerbit;
29  *     this.cetakanKe = cetakanKe;
30  *     this.hargaJual = hargaJual;
31  */
32  * public void tampil(){
33  *     System.out.println("Pengarang : "+namaPengarang+"\n"+Judul Buku :"+judulBuku+"\n"+Tahun : "+tahunTerbit+"\n"+Cetakan Ke : "+cetakanKe+"\n"+Harga : "+hargaJual);
34  */
35  */
36 }
```

Output

Constructor - NetBeans IDE 8.0.2

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

Projects

Source History

```
10 */
11 * @author Ibmul Faim Wakhidiaz
12 */
13 public static void main(String[] args){
14     Buku a = new Buku("Diaz");
15     Buku b = new Buku("2345653");
16     Buku c = new Buku("Hasan", "Dark Night", 2001, 2, 5000);
17     Buku d = new Buku("Oka", "Nightmare", 2000, 1, 7000);
18     Buku e = new Buku("Ajie", "Up", 2002, 5, 9000);
19     Buku f = new Buku("Merwin", "Low", 2009, 2, 6000);
20     Buku g = new Buku("Gailh", "Right", 2009, 9, 10.000);
21     Buku h = new Buku("Arvian", "New", 2015, 2, 30.000);
22     Buku i = new Buku("beni", "Adab", 2007, 6, 50.000);
23     Buku j = new Buku("gerry", "Flight", 2005, 5, 60.000);
24     Buku k = new Buku("Ivan", "Nur", 2012, 10, 3000);
25     Buku l = new Buku("Alferd", "Ganti Presiden", 2019, 13, 12.000);
26     b.tampil();
27     c.tampil();
28     d.tampil();
29     e.tampil();
30     f.tampil();
31     g.tampil();
32     h.tampil();
33     i.tampil();
34     j.tampil();
35     k.tampil();
36 }
```

Output - Constructor (run)

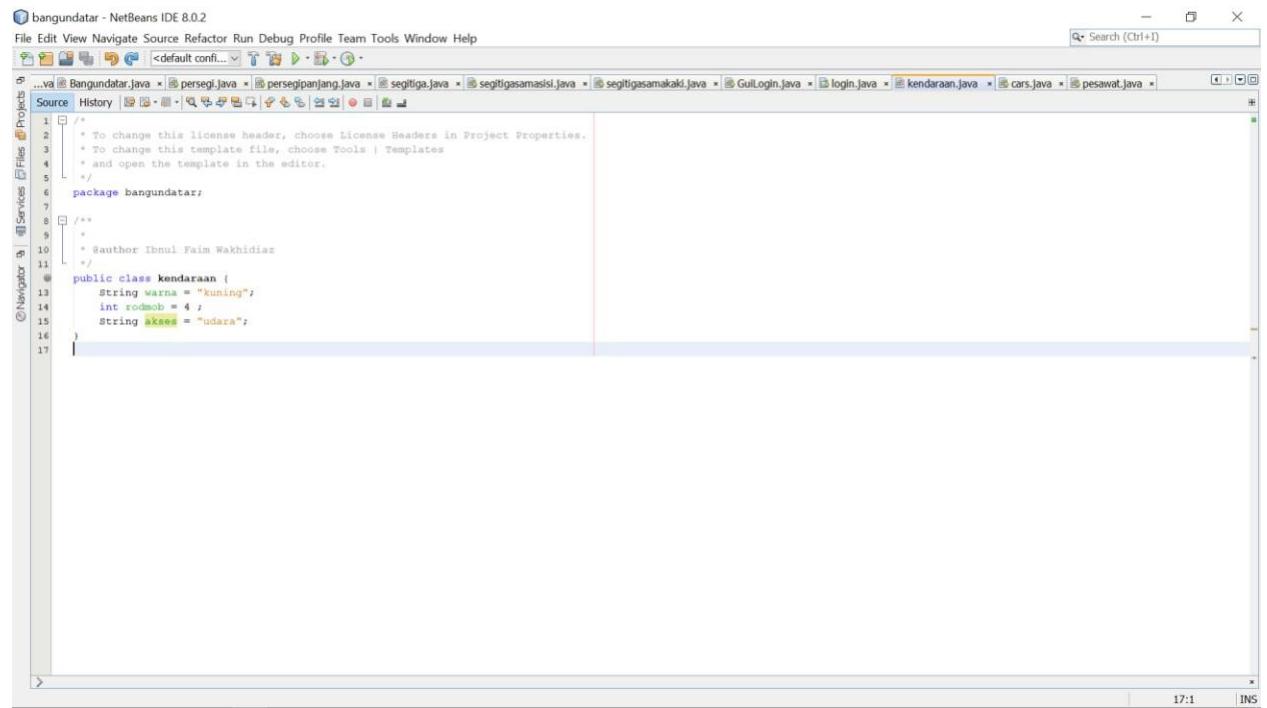
```
run:
Selamat Datang : Diaz
User Code : 2345653

Pengarang : Hasan
Judul Buku :Dark Night
Tahun : 2001
Cetakan Ke : 2
Harga : 5000.0
```

Output

Modul 6

Latihan



The screenshot shows the NetBeans IDE interface with the title "bangundatar - NetBeans IDE 8.0.2". 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 package bangundatar;
7
8 /**
9 * 
10 * @author Ibnu Faim Wakhidiaz
11 */
12 public class kendaraan {
13     String warna = "kuning";
14     int rodmob = 4 ;
15     String skses = "udara";
16 }
17
```

The code defines a class named "kendaraan" with three fields: "warna" (String type, value "kuning"), "rodmob" (int type, value 4), and "skses" (String type, value "udara"). The code editor shows syntax highlighting for Java keywords and comments. The status bar at the bottom right indicates the current time as 17:1 and the mode as INS.

bangundatar - NetBeans IDE 8.0.2

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

Projects Files Services Navigator

Source History <default config... > T S D E

```
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 bangundatar;  
7  
8 /**  
9  * @author Ibnu Faim Wakhidiaz  
10 */  
11 public class cars extends kendaraan{  
12     public static void main(String[] args){  
13         String bahanbakar = "Bensin";  
14         String info;  
15         kendaraan k = new kendaraan();  
16         info = "Mobil dengan warna " + k.warna + " dan dengan roda " + k.rodmob + " dengan bahan bakar " + bahanbakar;  
17         System.out.println(info);  
18     }  
19 }  
20 }  
21 }
```

Output - bangundatar (run) >

```
run:  
Mobil dengan warna kuning dan dengan roda 4 dengan bahan bakar Bensin  
BUILD SUCCESSFUL (total time: 0 seconds)
```

Finished building bangundatar (run). 12:34 INS

bangundatar - NetBeans IDE 8.0.2

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

Projects Files Services Navigator

Source History <default config... > T S D E

```
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 bangundatar;  
7  
8 /**  
9  * @author Ibnu Faim Wakhidiaz  
10 */  
11 public class pesawat extends kendaraan {  
12     public static void main (String[] args){  
13         String bahanbakar = "avture";  
14         String info;  
15         kendaraan i = new kendaraan();  
16         info = "Pesawat dengan warna "+i.warna+" dengan bahan bakar "+bahanbakar+" dan akses lewat "+i.akses;  
17         System.out.println(info);  
18     }  
19 }  
20 }  
21 }
```

Output - bangundatar (run) >

```
run:  
Pesawat dengan warna kuning dengan bahan bakar avture dan akses lewat udara  
BUILD SUCCESSFUL (total time: 0 seconds)
```

Finished building bangundatar (run). 16:39 INS

Tugas

bangundatar - NetBeans IDE 8.0.2

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
<default config> Projects Sources History Files Services Navigator
...vi Bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamasi.java segitigasamakai.java GuiLogin.java login.java kendaraan.java cars.java pesawat.java
Source History Bangundatar.java hitungluas.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 bangundatar;
7
8 /**
9  * @author Ibnu Faim Wakhidiaz
10 */
11 public class Bangundatar {
12     double luas, keliling;
13     public void hitungluas(){
14         System.out.println("Luas");
15     }
16     public void hitungkeliling(){
17         System.out.println("Keliling");
18     }
19 }
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```

bangundatar - NetBeans IDE 8.0.2

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

Projects Sources History Files Services Navigator

```
10  * @author Ibnu Faim Wakhidiaz
11
12  public class persegiPanjang extends Bangundatar{
13      int panjang=10;
14      double lebar=5;
15      double luaspp, kelilingpp;
16      public void luaspp(){
17          luaspp=panjang*lebar;
18          System.out.println(luaspp);
19      }
20      public void kelilingpp(){
21          kelilingpp=2*(panjang + lebar);
22          System.out.println(kelilingpp);
23      }
24      public static void main(String[] args){
25          persegiPanjang pp = new persegiPanjang();
26          Bangundatar b = new Bangundatar();
27          b.hitungluas();
28          pp.luaspp();
29          b.hitungkeliling();
30          pp.kelilingpp();
31      }
32  }
33
```

Output - bangundatar (run) :

```
run:
Luas
50.0
Keliling
30.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

bangundatar - NetBeans IDE 8.0.2

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

Projects Sources History Files Services 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 bangundatar;
7
8  /**
9   * 
10  * @author Ibnu Faim Wakhidiaz
11  */
12  public class segitiga extends Bangundatar{
13      double alas=12;
14  }
15
```

bangundatar - NetBeans IDE 8.0.2

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

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

Projects Navigator Files Services

```
...va Bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamasi.java segitigasamakai.java GuiLogin.java login.java kendaraan.java cars.java pesawat.java
```

Source

```
4 * and open the template in the editor.
5 +
6 package bangundatar;
7
8 /**
9 * @author Ibnu Fain Wakhidiaz
10 */
11 public class segitigasamakai extends segitiga{
12     double sisimiring=10;
13     double tinggi = 8;
14     double luassegitigask, kelilingsegitigask;
15     public void luassegitigask(){
16         luassegitigask=0.5 * ( alas * tinggi );
17         System.out.println(luassegitigask);
18     }
19     public void kelilingsegitigask(){
20         kelilingsegitigask= alas + ( 2 * sisimiring );
21         System.out.println(kelilingsegitigask);
22     }
23     public static void main(String[] args){
24         segitigasamakai sk = new segitigasamakai();
25         Bangundatar b = new Bangundatar();
26         b.hitungluas();
27         sk.luassegitigask();
28         b.hitungkeliling();
29         sk.kelilingsegitigask();
30     }
31 }
32 }
```

Output - bangundatar (run) *

```
run:
Luas
48.0
Keliling
32.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

bangundatar - NetBeans IDE 8.0.2

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

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

Projects Navigator Files Services

```
...va Bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamasi.java segitigasamakai.java GuiLogin.java login.java kendaraan.java cars.java pesawat.java
```

Source

```
10 /**
11 * @author Ibnu Fain Wakhidiaz
12 */
13 public class segitigasamasisi extends segitiga {
14     double sisi=12;
15     double luassegitigass, kelilingsegitigass;
16     public void luassegitigass(){
17         luassegitigass=sisi / 4 * 1.732050800;
18         System.out.println(luassegitigass);
19     }
20     public void kelilingsegitigass(){
21         kelilingsegitigass= sisi + sisi + sisi ;
22         System.out.println(kelilingsegitigass);
23     }
24     public static void main(String[] args){
25         segitigasamasisi ss = new segitigasamasisi();
26         Bangundatar b = new Bangundatar();
27         b.hitungluas();
28         ss.luassegitigass();
29         b.hitungkeliling();
30         ss.kelilingsegitigass();
31     }
32 }
```

Output - bangundatar (run) *

```
run:
Luas
62.353829088000005
Keliling
36.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

Modul 7

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

- Projects:** A tree view showing the project structure under "Praktikum".
- Start Page:** The main workspace displaying the source code for `Karyawan.java`.
- Code Editor:** The central window contains 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 praktikum;
7
8 /**
9 * @author Badak Hitam
10 */
11 public class Karyawan {
12     private String nama;
13     private float gaji;
14     private int usia;
15
16     public String getName(){
17         return nama;
18     }
19
20     public float getGaji(){
21         return gaji;
22     }
23
24     public int getUsia(){
25         return usia;
26     }
27     public void setName(String nama){
28         this.nama = nama;
29     }
30
31     public void setGaji(float gaji){
32         this.gaji = gaji;
33     }
34
35     public void setUsia(int usia){
36         this.usia = usia;
37     }
38
39 }
40
41
```

- Navigator:** Shows the members of the `Karyawan` class.
- Toolbar:** Standard NetBeans toolbar with icons for file operations, search, and run.
- Status Bar:** Shows the current session is "praktikum — Dolphin" and the time is 10:21.

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

- Projects:** A tree view showing the project structure under "Praktikum".
- Start Page:** The main workspace displaying the source code for `karyawandemo.java`.
- Code Editor:** The central window contains 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 praktikum;
7
8 /**
9 * @author Badak Hitam
10 */
11 public class karyawandemo {
12     public static void main (String[] args){
13         Karyawan k = new Karyawan();
14         k.setName("Hasan");
15         k.setGaji(2000);
16         k.setUsia(85);
17
18         System.out.println(k.getName());
19         System.out.println(k.getGaji());
20         System.out.println(k.getUsia());
21     }
22 }
23
```

- Navigator:** Shows the members of the `karyawandemo` class.
- Output:** A panel at the bottom showing the results of the run command:

- Run: Hasan
- Run: 2000.0
- Run: 85
- BUILD SUCCESSFUL (total time: 0 seconds)

- Toolbar:** Standard NetBeans toolbar with icons for file operations, search, and run.
- Status Bar:** Shows the current session is "praktikum — Dolphin" and the time is 22:6.

Praktikum - NetBeans IDE 8.2

```

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History <default config> Search (Ctrl+F)
Projects X Start Page X karyawandemo.java X Karyawan.java X manager.java X
Source Members
12 public class manager extends Karyawan {
13     private float jamKerja = 7.5f;
14     private float GajiManager;
15     private String jenis, posisi, kendaraan;
16
17
18     public float jamKerja(){
19         return jamKerja;
20     }
21     public float getGajiManager(){
22         return getGaji() * 2;
23     }
24     public String jenis(){
25         return jenis;
26     }
27     public String posisi(){
28         return posisi;
29     }
30     public String kendaraan(){
31         return kendaraan;
32     }
33     public void setjamKerja(float jamKerja){
34         this.jamKerja = jamKerja;
35     }
36     public void setGajiManager(float GajiManager){
37         this.GajiManager = GajiManager;
38     }
39     public void setjenis(String jenis){
40         this.jenis = jenis;
41     }
42     public void setposisi(String posisi){
43         this.posisi = posisi;
44     }
45     public void setkendaraan(String kendaraan){
46         this.kendaraan = kendaraan;
47     }
48     public static void main (String[] args){
49         manager m = new manager();
50         m.jamKerja();
51         m.setGajiManager();
52         m.setjenis("Manager tetap");
53         m.setposisi("Manager 1");
54         m.setkendaraan("Alphard");
55
56         System.out.println(m.jenis());
57         System.out.println(m.posisi());
58         System.out.println(m.jamKerja());
59         System.out.println(m.getGajiManager());
60         System.out.println(m.kendaraan());
61     }
}

```

praktikum manager > main >

praktikum — Dolphin praktikum — Dolphin <2> Untitled 1 - LibreOffice Writer Praktikum - NetBeans IDE 8.2 Speed Dial - Opera

Praktikum - NetBeans IDE 8.2

```

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History <default config> Search (Ctrl+F)
Projects X Start Page X karyawandemo.java X Karyawan.java X manager.java X
Source Members
12 public class manager extends Karyawan {
13     private float jamKerja = 7.5f;
14     private float GajiManager;
15     private String jenis, posisi, kendaraan;
16
17
18     public float jamKerja(){
19         return jamKerja;
20     }
21     public float getGajiManager(){
22         return getGaji() * 2;
23     }
24     public String jenis(){
25         return jenis;
26     }
27     public String posisi(){
28         return posisi;
29     }
30     public String kendaraan(){
31         return kendaraan;
32     }
33     public void setjamKerja(float jamKerja){
34         this.jamKerja = jamKerja;
35     }
36     public void setGajiManager(float GajiManager){
37         this.GajiManager = GajiManager;
38     }
39     public void setjenis(String jenis){
40         this.jenis = jenis;
41     }
42     public void setposisi(String posisi){
43         this.posisi = posisi;
44     }
}

```

praktikum.manager > main >

Output - Praktikum (run) X

```

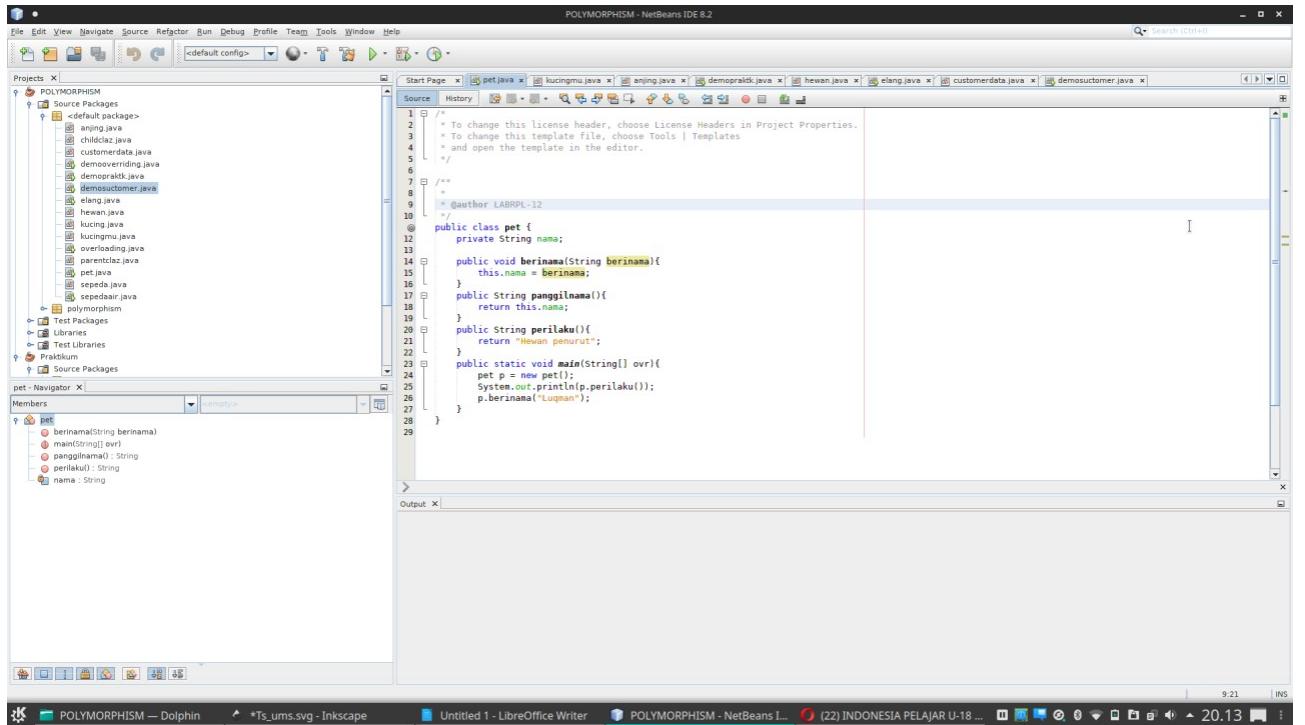
Run:
Manager
Manager tetap
Manager 1
7.5
1000.0
Alphard
BUILD SUCCESSFUL (total time: 0 seconds)

```

praktikum — Dolphin praktikum — Dolphin <2> Untitled 1 - LibreOffice Writer Praktikum - NetBeans IDE 8.2 Speed Dial - Opera

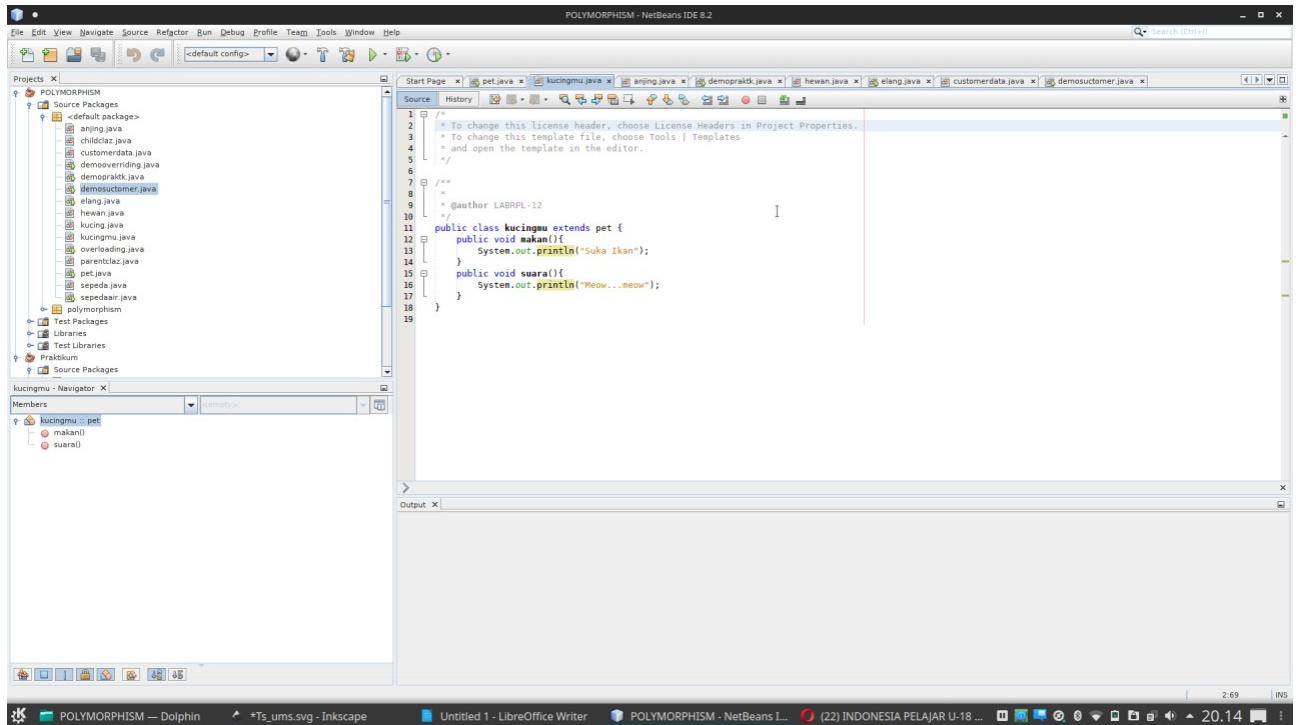
Modul 8

Latihan



```
/*
 * 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 POLYMORPHISM;

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";
    }
    public static void main(String[] ovr){
        pet p = new pet();
        System.out.println(p.perilaku());
        p.berinama("Lugman");
    }
}
```



```
/*
 * 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 POLYMORPHISM;

public class kucingmu extends pet {
    public void makan(){
        System.out.println("Suka Ikan");
    }
    public void surau(){
        System.out.println("Meow...meow");
    }
}
```

POLYMORPHISM - NetBeans IDE 8.2

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

Projects POLYMORPHISM

Source Packages

- <default package>
 - anjing.java
 - childlaz.java
 - customerdata.java
 - demooverriding.java
 - demopraktik.java
 - demosustomer.java
 - elang.java
 - hewan.java
 - kucing.java
 - kucingmu.java
 - overloading.java
 - pacentziz.java
 - pet.java
 - sepeda.java
 - sepedair.java
- polymorphism
- Test Packages
- Libraries
- Test Libraries
- Praktikum
- Source Packages

Navigator Members

- anjing :: pet
 - makan()
 - suara()

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 /**
7  * @author LABRPL-12
8  */
9
10 public class anjing extends pet {
11     public void makan(){
12         System.out.println("Suka daging dan tulang");
13     }
14     public void suara(){
15         System.out.println("guk..guk");
16     }
17 }
18 }
```

Dolphin *Ts_ums.svg - Inkscape Untitled 1 - LibreOffice Writer POLYMORPHISM - NetBeans I... (22) INDONESIA PELAJAR U-18 ... 20.14 1:1 INS

POLYMORPHISM - NetBeans IDE 8.2

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

Projects POLYMORPHISM

Source Packages

- <default package>
 - anjing.java
 - childlaz.java
 - customerdata.java
 - demooverriding.java
 - demopraktik.java
 - demosustomer.java
 - elang.java
 - hewan.java
 - kucing.java
 - kucingmu.java
 - overloading.java
 - pacentziz.java
 - pet.java
 - sepeda.java
 - sepedair.java
- polymorphism
- Test Packages
- Libraries
- Test Libraries
- Praktikum
- Source Packages

main - Navigator Members

- demopraktik
 - main(String[] ov)

Output - POLYMORPHISM (run) x

```
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  * @author LABRPL-12
8  */
9
10 public class demopraktik {
11     public static void main(String[] ov){
12         pet pt = new pet();
13         kucing km = new kucingmu();
14         anjing an = new anjing();
15         pt.berinama("Tom");
16         System.out.println(pt.panggilnama());
17         km.makan();
18         km.suara();
19         System.out.println(pt.perilaku());
20
21         pt.berinama("Bull");
22         System.out.println(pt.panggilnama());
23         an.makan();
24         an.suara();
25         System.out.println(pt.perilaku());
26
27     }
28 }
29 }
```

Dolphin *Ts_ums.svg - Inkscape Untitled 1 - LibreOffice Writer POLYMORPHISM - NetBeans I... (22) INDONESIA PELAJAR U-18 ... 22.26 20.15 INS

Tugas

The screenshot shows the NetBeans IDE interface with the title "POLYMORPHISM - NetBeans IDE 8.2". The left sidebar displays the "Projects" view, showing a package named "POLYMORPHISM" containing several source files: anjing.java, chileclaz.java, customerdata.java, demopetunjuk.java, demoplatik.java, hewancustomer.java, elang.java, hewan.java, and sepeda.java. Below this is a "Test Packages" section with "Test Libraries" and "Praktikum". The main workspace contains a code editor for "hewan.java" with the following content:

```
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 LABRPL-12
9  */
10 public class hewan {
11     public void jalan(){
12         System.out.println("Hewan bisa berjalan");
13     }
14 }
15
16
```

The bottom right corner of the code editor has a red vertical bar. The "Output" window at the bottom shows the execution results:

```
run:
1 Suka Ikan
2 Mew...mew
3 Bulan penurut
4 Suka degung dan tulang
5 guk...guk
6 Renggin penurut
BUILD SUCCESSFUL (total time: 0 seconds)
```

The screenshot shows the NetBeans IDE interface with the title "POLYMORPHISM - NetBeans IDE 8.2". The left sidebar displays the project structure under "Projects X" with packages like "POLYMORPHISM", "Source Packages", and "Test Packages". The main editor window shows Java code for polymorphism, specifically inheritance and method overriding. The code defines classes "elang" and "hewan" with a shared method "jalan". The "Output" window at the bottom shows the successful execution of the program, printing "elang terbang menggunakan sayap dia tas gunung".

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/*
 *
 * @author LABRPL-12
 */
public class elang extends hewan {
    public void jalan(){
        System.out.println("elang terbang menggunakan sayap dia tas gunung");
    }
    public static void main(String[] ovr){
        elang el = new elang();
        el.jalan();
    }
}
```

Output - POLYMORPHISM (run) x

```
run:
elang terbang menggunakan sayap dia tas gunung
BUILD SUCCESSFUL (total time: 0 seconds)
```

POLYMORPHISM - 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 LABRPL-12
9 */
10 public class customerdata {
11     String nama, alamat, pekerjaan;
12     int tanggalahir;
13     float gaji;
14
15     public customerdata(){
16
17     }
18     public void customerdata(String nama, String alamat, int tanggalahir, String pekerjaan, float gaji){
19         this.nama = nama;
20         this.alamat = alamat;
21         this.tanggalahir = tanggalahir;
22         this.pekerjaan = pekerjaan;
23         this.gaji = gaji;
24         System.out.println("Nama : "+nama+"\nAlamat : "+alamat+"\nTanggal Lahir : "+tanggalahir+"\nPekerjaan : "+pekerjaan+"\nGaji : "+gaji);
25     }
26 }
27

```

POLYMORPHISM — Dolphin *Ts_ums.svg - Inkscape Untitled 1 - LibreOffice Writer POLYMORPHISM - NetBeans I... (22) INDONESIA PELAJAR U-18 ... 20.20 INS

POLYMORPHISM - 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 LABRPL-12
9 */
10 public class demosuctomer {
11     public static void main(String [] args){
12         customerdata cd = new customerdata();
13         customerdata o = new customerdata();
14         customerdata i = new customerdata();
15         customerdata l = new customerdata();
16         customerdata m = new customerdata();
17         customerdata a = new customerdata();
18         customerdata d = new customerdata();
19         customerdata c = new customerdata();
20         customerdata r = new customerdata();
21         customerdata v = new customerdata();
22
23         cd.customerdata("Diaz", "Kudus", 3, "Manager", 30000000);
24         o.customerdata("Lugman", "Sukaharja", 6, "bos", 20000000);
25         i.customerdata("aj", "Sukaharja", 5, "hacker", 1000000);
26         l.customerdata("lala", "Kudus", 2, "Manager", 3000000);
27         m.customerdata("dika", "Kudus", 2, "Manager", 3000000);
28         d.customerdata("Dani", "Kudus", 3, "Manager", 3000000);
29         c.customerdata("Budi", "Kudus", 3, "Manager", 3000000);
30         r.customerdata("Rendy", "Kudus", 3, "Manager", 3000000);
31         v.customerdata("Sandy", "Kudus", 3, "Manager", 3000000);
32     }
33 }
34
35

```

demosuctomer - Navigator x

Output - POLYMORPHISM (run) x

```

1  Run:
2  Main Class: Diaz
3  Alamat : Kudus
4  Tanggal lahir : 3
5  Pekerjaan : Manager
6  Gaji : 3.0E7
7  Nama : Lugman
8  Alamat : Sukaharja
9  Tanggal lahir : 6
10  Pekerjaan : bos
11  Gaji : 2.0E7
12  Nama : aj
13  Alamat : Sukaharja
14  Tanggal lahir : 5
15  Pekerjaan : hacker
16  Gaji : 1.0E7
17  Nama : lala
18  Alamat : Kudus
19  Tanggal lahir : 2
20  Pekerjaan : Manager
21  Gaji : 3.0E6
22  Nama : dika
23  Alamat : Kudus
24  Tanggal lahir : 2
25  Pekerjaan : Manager
26  Gaji : 3.0E6
27  Nama : Dani
28  Alamat : Kudus
29  Tanggal lahir : 3
30  Pekerjaan : Manager
31  Gaji : 3.0E6
32  Nama : Budi
33  Alamat : Kudus
34  Tanggal lahir : 3
35  Pekerjaan : Manager
36  Gaji : 3.0E6
37  Nama : Rendy
38  Alamat : Kudus
39  Tanggal lahir : 3
40  Pekerjaan : Manager
41  Gaji : 3.0E6
42  Nama : Sandy
43  Alamat : Kudus
44  Tanggal lahir : 3
45  Pekerjaan : Manager
46  Gaji : 3.0E6

```

POLYMORPHISM — Dolphin *Ts_ums.svg - Inkscape Untitled 1 - LibreOffice Writer POLYMORPHISM - NetBeans I... (22) INDONESIA PELAJAR U-18 ... 20.21 INS

Modul 9

The image shows two side-by-side screenshots of the NetBeans IDE interface, both displaying Java code in the editor pane. The top screenshot shows the code for `methodAbstract.java`, which defines an abstract class `methodAbstract` with abstract methods `luas()` and `keliling()`. The bottom screenshot shows the code for `persegiPanjang.java`, which extends the `methodAbstract` class and implements the `luas()` and `keliling()` methods. Both screenshots include the NetBeans menu bar, toolbars, and status bar at the bottom.

```
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 Prak_PBO;
7
8 /**
9 *
10 */
11
12 public abstract class methodAbstract {
13     public abstract int luas();
14     public abstract int keliling();
15 }
16
17 public int getLuas(){
18     return luas();
19 }
20
21 public int getKelil(){
22     return keliling();
23 }
```

```
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 Prak_PBO;
7
8 /**
9 *
10 */
11
12 public class persegiPanjang extends methodAbstract {
13     int panjang = 8;
14     int lebar = 5;
15
16     public int luas(){
17         return panjang*lebar;
18     }
19     public int keliling(){
20         return 2*(panjang + lebar);
21     }
22 }
```

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

methodAbstract.java persegiPanjang.java JajarGenjang.java

Projects Services

lastProject

Source Packages

Prak_PBO

Balok.java Bola.java Kerucut.java Kubus.java Lingkaran.java MethodMain.java Segitiga.java bangunRuang.java JajarGenjang.java methodAbstract.java persegi.java persegiPanjang.java prismaSegitiga.java laundry Test Packages Libraries Test Libraries Ongkir

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package Prak_PBO;
7
8 /**
9 *
10 */
11
12 public class JajarGenjang extends methodAbstract {
13     int alas = 5;
14     int tinggi = 9;
15     int AB = 8, CD = 8;
16     int BC = 4, AD = 4;
17
18     public int luas(){
19         return alas*tinggi;
20     }
21     public int keliling(){
22         return (AB+CD+BC+AD);
23     }
24
25 }
26
```

Action Items Javadoc

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

methodAbstract.java persegiPanjang.java JajarGenjang.java Lingkaran.java

Projects Services

lastProject

Source Packages

Prak_PBO

Balok.java Bola.java Kerucut.java Kubus.java Lingkaran.java MethodMain.java Segitiga.java bangunRuang.java JajarGenjang.java methodAbstract.java persegi.java persegiPanjang.java prismaSegitiga.java laundry Test Packages Libraries Test Libraries Ongkir

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6 package Prak_PBO;
7
8 /**
9 *
10 */
11
12 public class Lingkaran extends methodAbstract{
13     int jari2 = 16;
14     int diameter = 8;
15     int pi = 22/7;
16
17     public int luas(){
18         return pi*diameter*diameter;
19     }
20     public int keliling(){
21         return pi*8;
22     }
23
24 }
25
```

Action Items Javadoc

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

Source History

```
1 // To change this license header, choose License Headers in Project Properties.
2 * To change this template file, choose Tools | Templates
3 * and open the template in the editor.
4 */
5 package Prak_PBO;
6
7 /**
8 * 
9 *
10 */
11
12 public class Segitiga extends methodAbstract {
13     int alas = 8;
14     int tinggi = 6;
15     int sisi = 4;
16     double Hasan = 0.5;
17
18     public int luas(){
19         return (int) (Hasan*alas*tinggi);
20     }
21     public int keliling(){
22         return (sisi+sisi+sisi);
23     }
24
25 }
```

Action Items Javadoc Segitiga.java saved.

24:2 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

Source History

```
1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6 package Prak_PBO;
7
8 /**
9 * 
10 */
11
12 @public abstract class bangunRuang {
13     @public abstract int luasPermukaan();
14     @public abstract int volume();
15
16     @public int getLuasper(){
17         return luasPermukaan();
18     }
19     @public int getVol(){
20         return volume();
21     }
22 }
23 }
```

Action Items Javadoc

23:1 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

Source History

```
1 /* To change this license header, choose License Headers in Project Properties.
2 * To change this template file, choose Tools | Templates
3 * and open the template in the editor.
4 */
5 package Prak_PBO;
6
7 /**
8 * 
9 *
10 */
11 public class Balok extends bangunRuang{
12     int luas = 5;
13     int tinggi = 6;
14     int panjang = 4;
15
16     public int luasPermukaan(){
17         return luas*tinggi*panjang;
18     }
19     public int volume(){
20         return [2*luas*tinggi]+(2*luas*panjang)+(2*tinggi*panjang);
21     }
22 }
23
24 }
```

Action Items Javadoc Balok.java saved.

21:13 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

Source History

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

Action Items Javadoc Kubus.java saved.

10:4 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

laundry

Source History

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6 package Prak_PBO;
7
8 /**
9 *
10 */
11
12 public class Bola extends bangunRuang{
13     int jari2 = 10;
14     int pi = 22/7;
15
16     public int luasPermukaan(){
17         return 4*pi*jari2*jari2;
18     }
19     public int volume(){
20         return 4/3*pi*jari2*jari2*jari2;
21     }
22 }
23
```

Action Items Javadoc Bola.java saved.

20:37 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+I)

Projects lastProject

Source Packages Prak_PBO

- Balok.java
- Bola.java
- Kerucut.java
- Kubus.java
- Lingkaran.java
- MethodMain.java
- Segitiga.java
- bangunRuang.java
- JajarGenjang.java
- methodAbstract.java
- persegi.java
- persegiPanjang.java
- prismaSegitiga.java

Test Packages

Libraries

Test Libraries

Ongkir

laundry

Source History

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6 package Prak_PBO;
7
8 /**
9 *
10 */
11
12 public class Kerucut extends bangunRuang {
13     int pi = 22/7;
14     int jari2 = 5 ;
15     int tinggi = 4;
16     double rumus = 0.3;
17     public int luasPermukaan(){
18         return (pi*jari2*jari2)+(pi*jari2*tinggi);
19     }
20     public int volume(){
21         return (int) (rumus*pi*jari2*jari2*tinggi);
22     }
23 }
```

Action Items Javadoc Kerucut.java saved.

24:1 INS

lastProject - NetBeans IDE 8.2

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

Search (Ctrl+F)

Projects **lastProject** Services

Source History

...vi JajarGenjang.java Lingkaran.java Segitiga.java bangunRuang.java Balok.java Kubus.java Bola.java Kerucut.java prismaSegitiga.java

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 Prak_PBO;

6

7 */***

8 ***

9 ***

10 ***

11 **/*

12 public class prismaSegitiga extends bangunRuang{

13 int luas alas = 5;

14 int tinggi = 7;

15 int keliling alas = 6;

16 int luas alas segitiga = 0;

17 public int luasPermukaan(){

18 return (keliling alas*tinggi)+(2*luas alas segitiga);

19 }

20 public int volume(){

21 return luas alas*tinggi;

22 }

23 }

24

Action Items Javadoc prismaSegitiga.java saved. 24:1 INS

Modul 10

The screenshot displays two instances of the NetBeans IDE 8.2 interface.

Top Window (interface - NetBeans IDE 8.2):

- Projects:** interface
- Source Packages:** pkginterface (AktivitasLampu.java, AplikasiLampu.java, Interface.java, Lampu.java, manala.java)
- Test Packages:** None
- Libraries:** None
- Test Libraries:** None

Navigator (Members):

- None

Source Editor (AktivitasLampu.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 pkginterface;
7
8  /**
9   * @author LABRPL-22
10 */
11 public interface AktivitasLampu {
12     public static final int LAMPU_HIDUP=1;
13     public static final int LAMPU_MATI=0;
14     public static final int LAMPU_REDUP=3;
15     public abstract void matikanLampu();
16     public abstract void hidupkanLampu();
17     public abstract void redupkanLampu();
18 }
19 
```

Bottom Window (interface - NetBeans IDE 8.2):

- Projects:** interface
- Source Packages:** pkginterface (AktivitasLampu.java, AplikasiLampu.java, Interface.java, Lampu.java, manala.java)
- Test Packages:** None
- Libraries:** None
- Test Libraries:** None

Navigator (Members):

- Lampu :: AktivitasLampu
 - hidupkanLampu()
 - matikanLampu()
 - redupkanLampu()
 - LAMPU_HIDUP : int
 - LAMPU_MATI : int
 - LAMPU_REDUP : int

Source Editor (Lampu.java):

```
10  /*
11  * @author LABRPL-22
12  */
13  public class Lampu implements AktivitasLampu {
14      public int statusLampu;
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      public void hidupkanLampu() {
24          if(statusLampu==1){
25              System.out.println("Lampu sudah dinyalakan\n***");
26          }else {
27              statusLampu+=1;
28              System.out.println("Lampu sudah dalam kondisi menyala");
29          }
30      }
31      public void redupkanLampu() {
32          if(statusLampu==3){
33              System.out.println("Lampu sudah diredupkan\n***");
34          }else {
35              statusLampu+=3;
36              System.out.println("Lampu sudah dalam kondisi redup");
37          }
38      }
39      public int setSaklar(int saklar) {
40          return statusLampu = saklar;
41      }
42  }
```

Screenshot 1 (Top): NetBeans IDE 8.2 showing the code for `AplikasiLampu.java`. The code initializes a lamp, reads user input from a scanner, and prints status messages based on the input. The output window shows the program running and printing the status of the lamp.

```

11  /*
12  * public class AplikasiLampu {
13  *     public static void main(String[] args) {
14  *         Lampu lampu = new Lampu();
15  *         Scanner sc = new Scanner(System.in);
16  *         lampu.setStatusLampu(0);
17  *         System.out.println("Status lampu = "+lampu.getStatusLampu()+"\nketikkan");
18  *         System.out.println("1 untuk menyalaikan lampu \n0 untuk mematikan lampu \n3 untuk meredupkan lampu");
19  *
20  *         int a = sc.nextInt();
21  *         if(lampu.setSaklar(a)==0){
22  *             lampu.matiKanLampu();
23  *         }else if(lampu.setSaklar(a)==1){
24  *             lampu.hidupkanLampu();
25  *         }
26  *         else {
27  *             lampu.redupkanLampu();
28  *         }
29  *     }
30  }

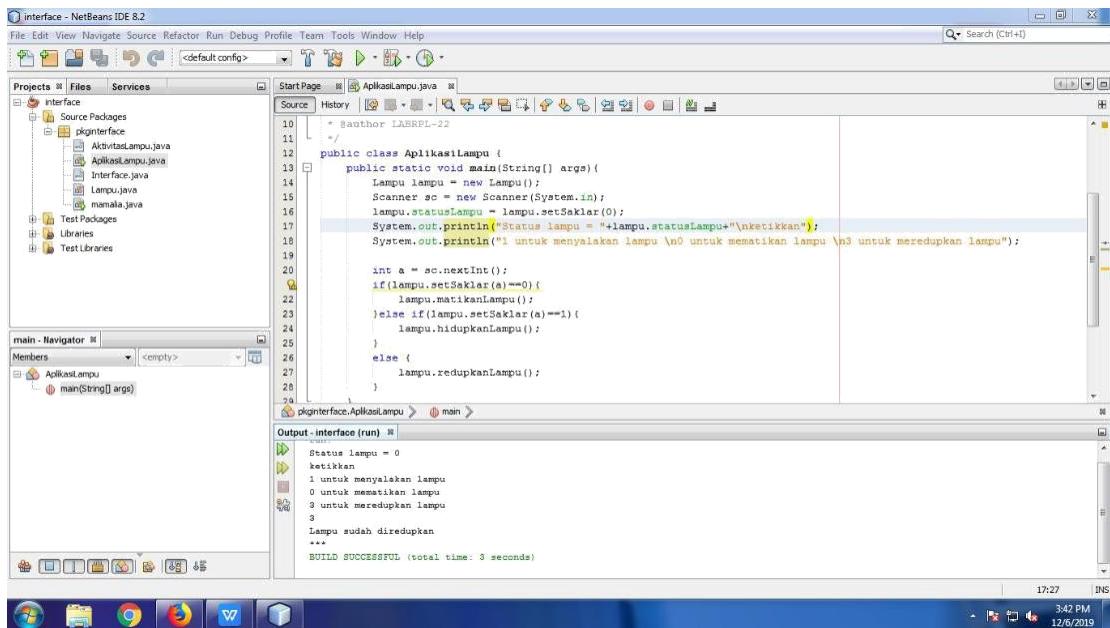
```

Screenshot 2 (Bottom): NetBeans IDE 8.2 showing the code for `AplikasiLampu.java`. The code is identical to Screenshot 1, but the output window shows the program running and printing the status of the lamp, indicating it is already turned off.

```

10  * @author LABRPL-22
11  */
12  public class AplikasiLampu {
13  public static void main(String[] args) {
14  Lampu lampu = new Lampu();
15  Scanner sc = new Scanner(System.in);
16  lampu.setStatusLampu(0);
17  System.out.println("Status lampu = "+lampu.getStatusLampu()+"\nketikkan");
18  System.out.println("1 untuk menyalaikan lampu \n0 untuk mematikan lampu \n3 untuk meredupkan lampu");
19  *
20  int a = sc.nextInt();
21  if(lampu.setSaklar(a)==0){
22  lampu.matiKanLampu();
23  }else if(lampu.setSaklar(a)==1){
24  lampu.hidupkanLampu();
25  }
26  else {
27  lampu.redupkanLampu();
28  }
}

```



Modul 11

Inner Class

```
public class OuterDemo {  
    int num;  
  
    private class InnerDemo{  
        private void print(){  
            System.out.println("Ini merupakan method InnerClass");  
        }  
    }  
    void displayInner(){  
        InnerDemo inner = new InnerDemo();  
        inner.print();  
    }  
}  
  
public class MyClass {  
    public static void main(String[] args){  
        OuterDemo outer = new OuterDemo();  
        outer.displayInner();  
    }  
}
```

```
- Modul11 (run)  ✘ |  
run:  
Ini merupakan method InnerClass  
BUILD SUCCESSFUL (total time: 0 seconds)
```

Mengakses Private Member

```
public class OuterDemo2 {
    private int num = 175;
    public class Inner_Demo{
        public int getNum(){
            System.out.println("Ini adalah nilai dari variable private OuterDemo");
            return num;
        }
    }
}
public class OuterDemoMain {
    public static void main(String[] args){
        OuterDemo2 outer = new OuterDemo2();
        OuterDemo2.Inner_Demo inner = outer.new Inner_Demo();
        System.out.println(inner.getNum());
    }
}
```

```
t - Modul11 (run) ✘
run:
Ini adalah nilai dari variable private OuterDemo
175
BUILD SUCCESSFUL (total time: 0 seconds)
```

Static Nested Class

```
public class Outer {
    static class NestedDemo{
        public void myMethod(){
            System.out.println("Ini adalah method" + "Static nested class");
        }
    }
    public static void main(String[] args){
        Outer.NestedDemo nested = new Outer.NestedDemo();
        nested.myMethod();
    }
}
```

```
t - Modul11 (run) ✘
run:
Ini adalah methodStatic nested class
BUILD SUCCESSFUL (total time: 0 seconds)
```

Latihan

The screenshot shows two instances of the NetBeans IDE interface. Both instances have the same project structure and code editor content, but different toolbars and panes visible.

Project Structure:

- Projects: abstract, Latihan, POLYMORPHISM, Praktikum
- Source Packages:
 - Latihan:
 - NestedClass.java
 - Keluar.java
 - Mod.java
 - Pembayaran.java
 - Penyewa.java
 - namamobil.java
 - sewa.java
 - tabletSewa.java
 - Keluarkan.java
 - NestedClass.java
 - Tampil.java
 - Test Packages, Libraries, Test Libraries

Code Editor (Top Window):

```
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 latihan;
6 
7 /**
8 * @author badakkham
9 */
10 public class NestedClass {
11     String name = "IbnuL Faiz Wahidiaz";
12     String nim = "L200180039";
13     public void printName(){
14         System.out.println("Name : " + name + " | NIM : " + nim);
15     }
16     static class StaticNestedClass{
17         public void myName(){
18             NestedClass n = new NestedClass();
19             n.printName();
20         }
21     }
22     static String jurusan = "Informatika";
23     public class InnerClass{
24         public void Jurusan(){
25             NestedClass.StaticNestedClass jur = new NestedClass.StaticNestedClass();
26             jur.myName();
27         }
28     }
29     System.out.println("Jurusan : " + jur.jurusan);
30 }
31
32
33
34 }
```

Members Navigator (Bottom Left):

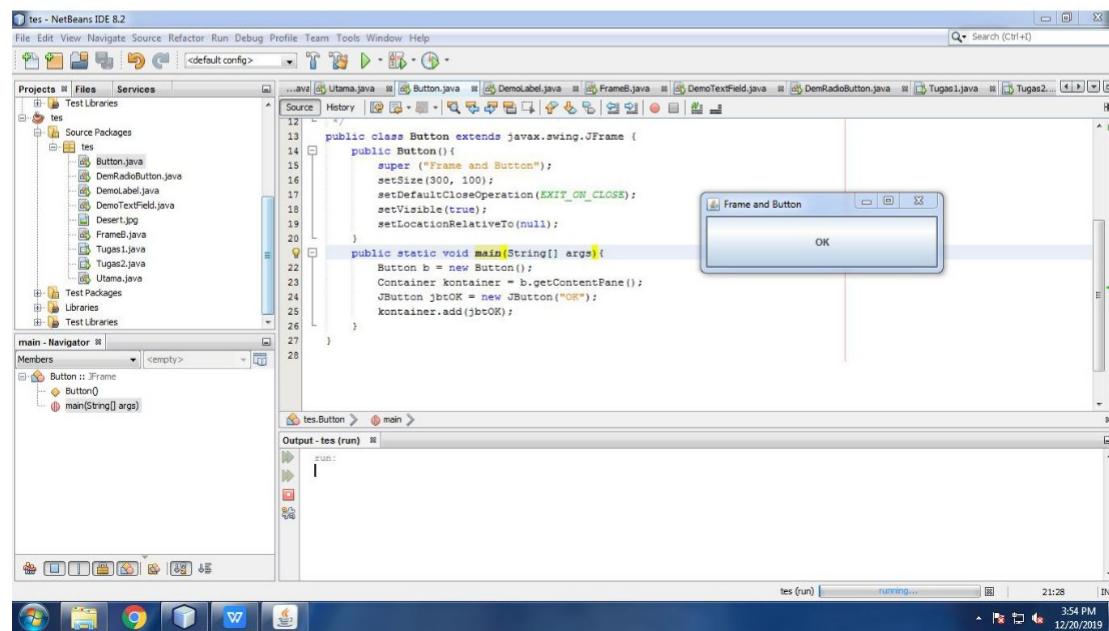
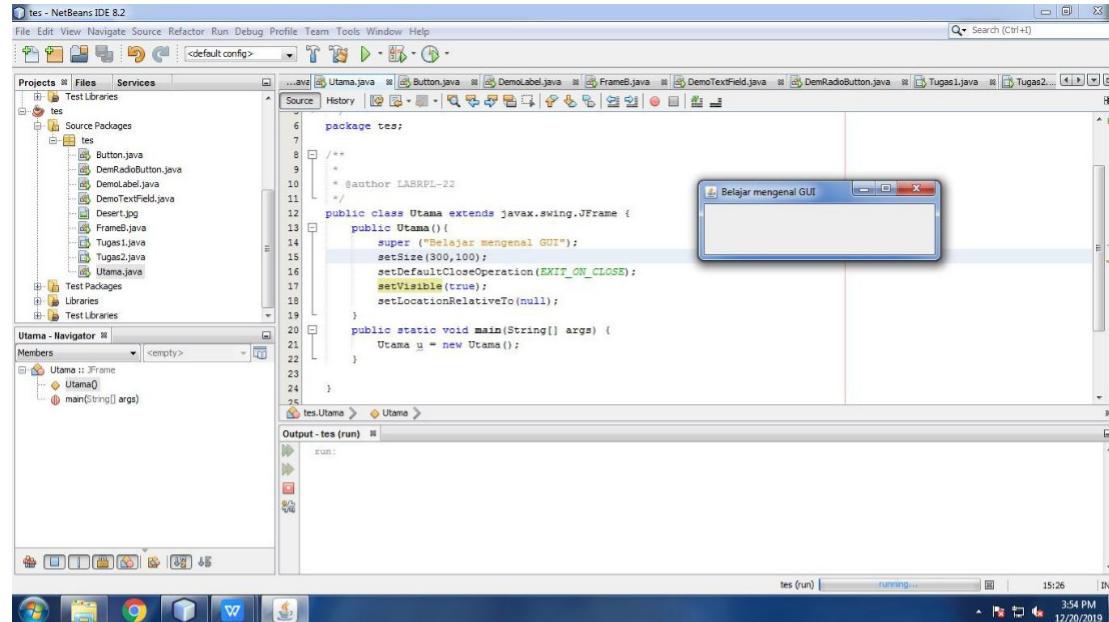
- NestedClass
 - printName()
 - name: String
 - nim: String
 - InnerClass
 - Jurusan
- StaticNestedClass
 - myName()
- InnerClass
 - jurusan: String

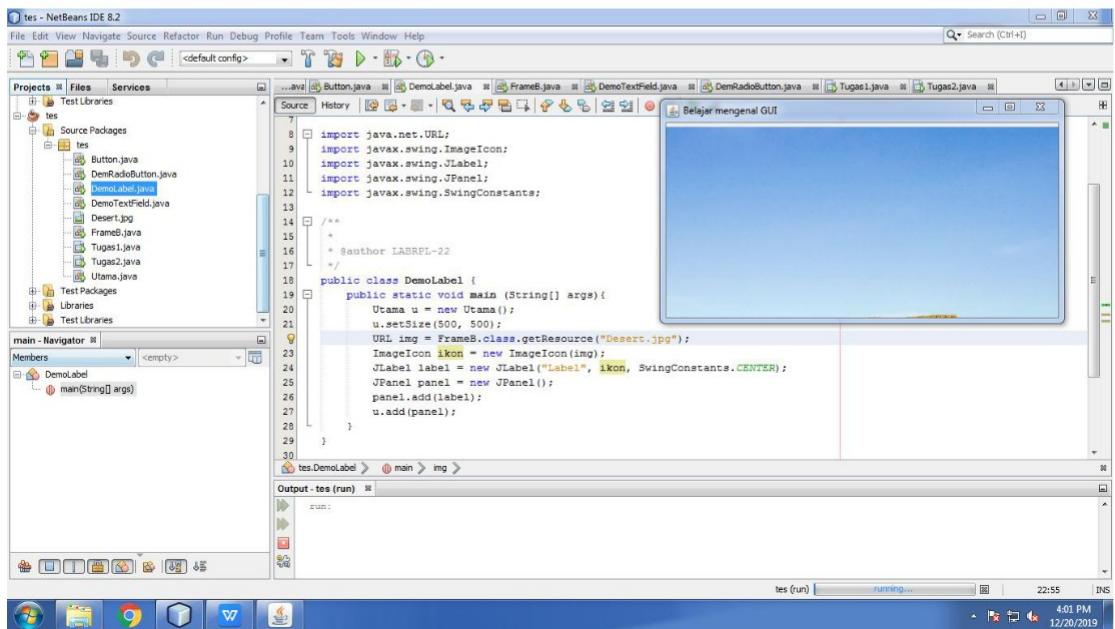
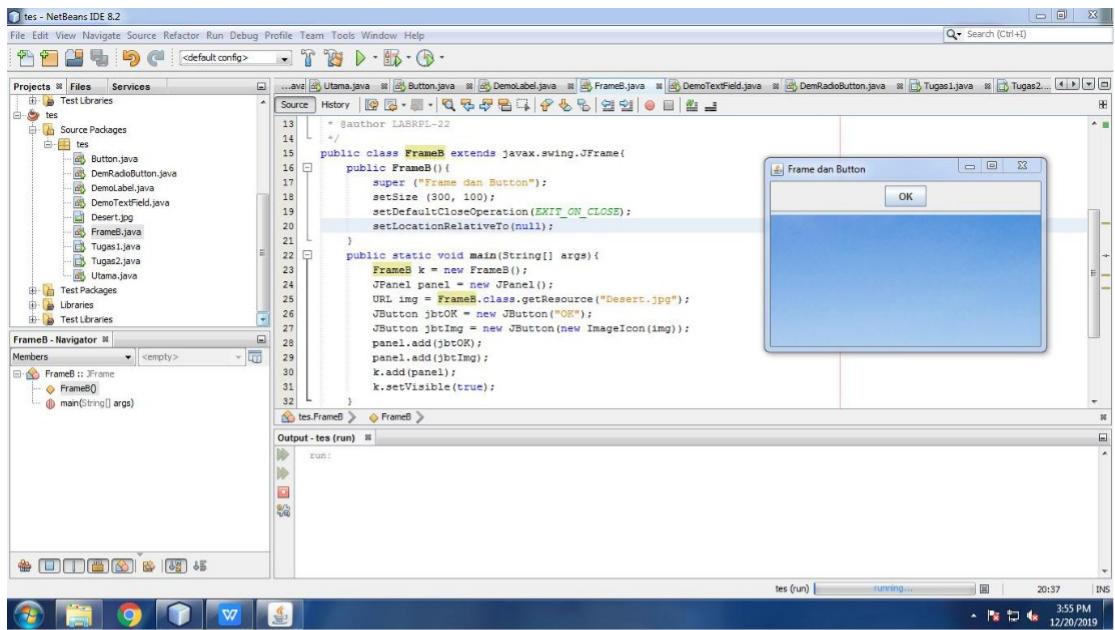
Output (Bottom Right):

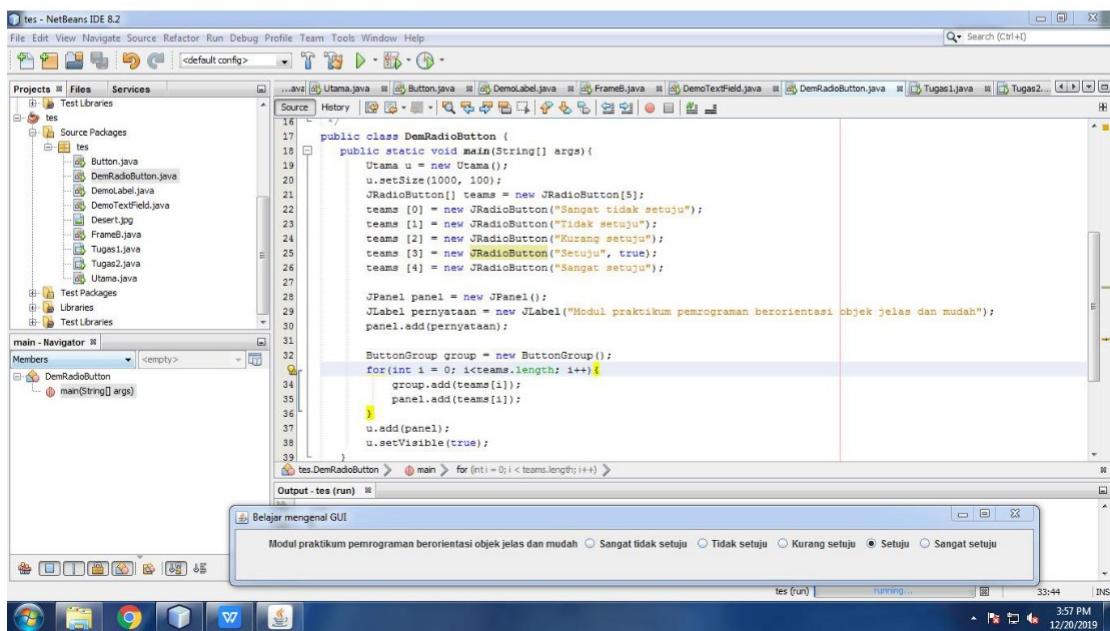
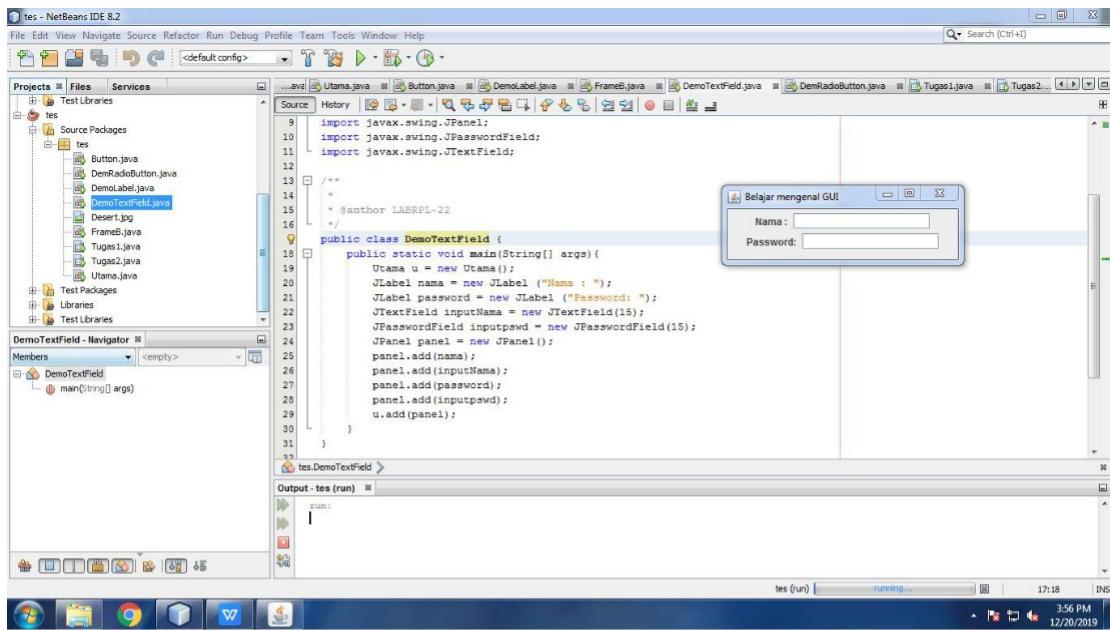
```
Name : Ibnu Faiz Wahidiaz
NIM : L200180039
Jurusan : Informatika
BUILD SUCCESSFUL (total time: 0 seconds)
```

Modul 12

Latihan







Tugas

