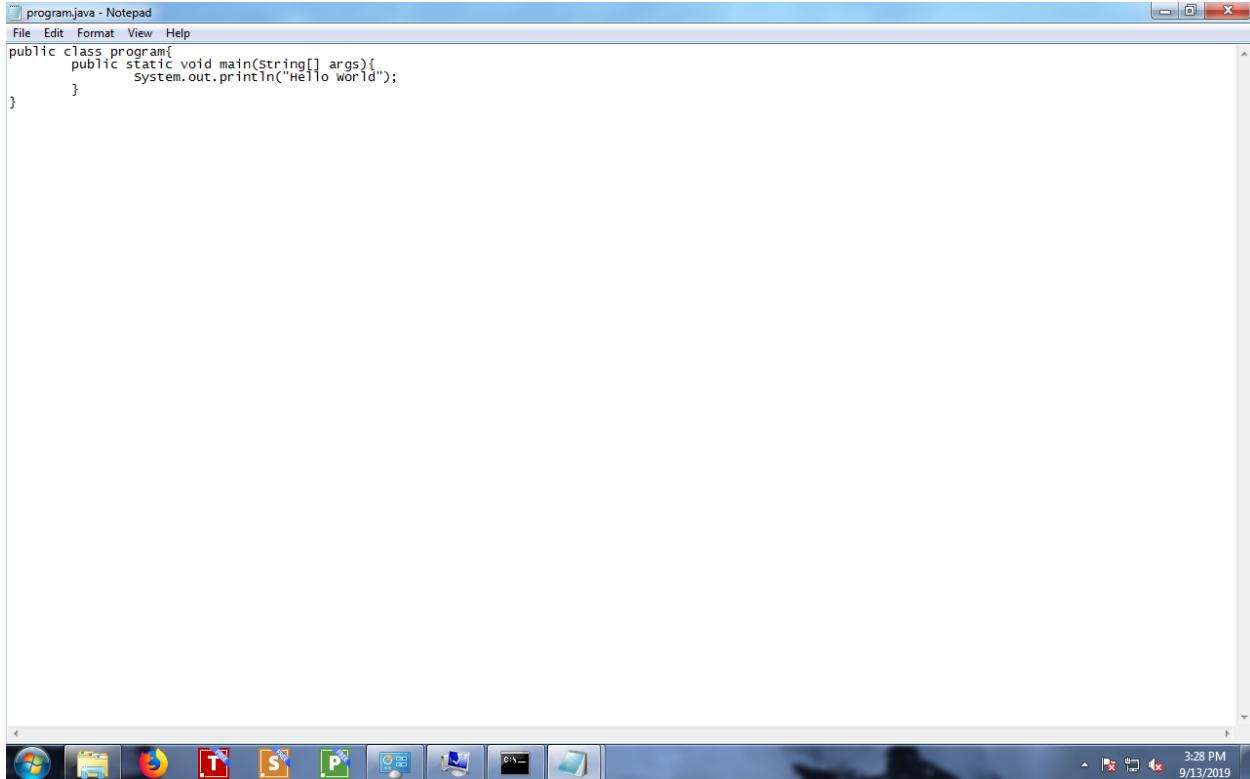


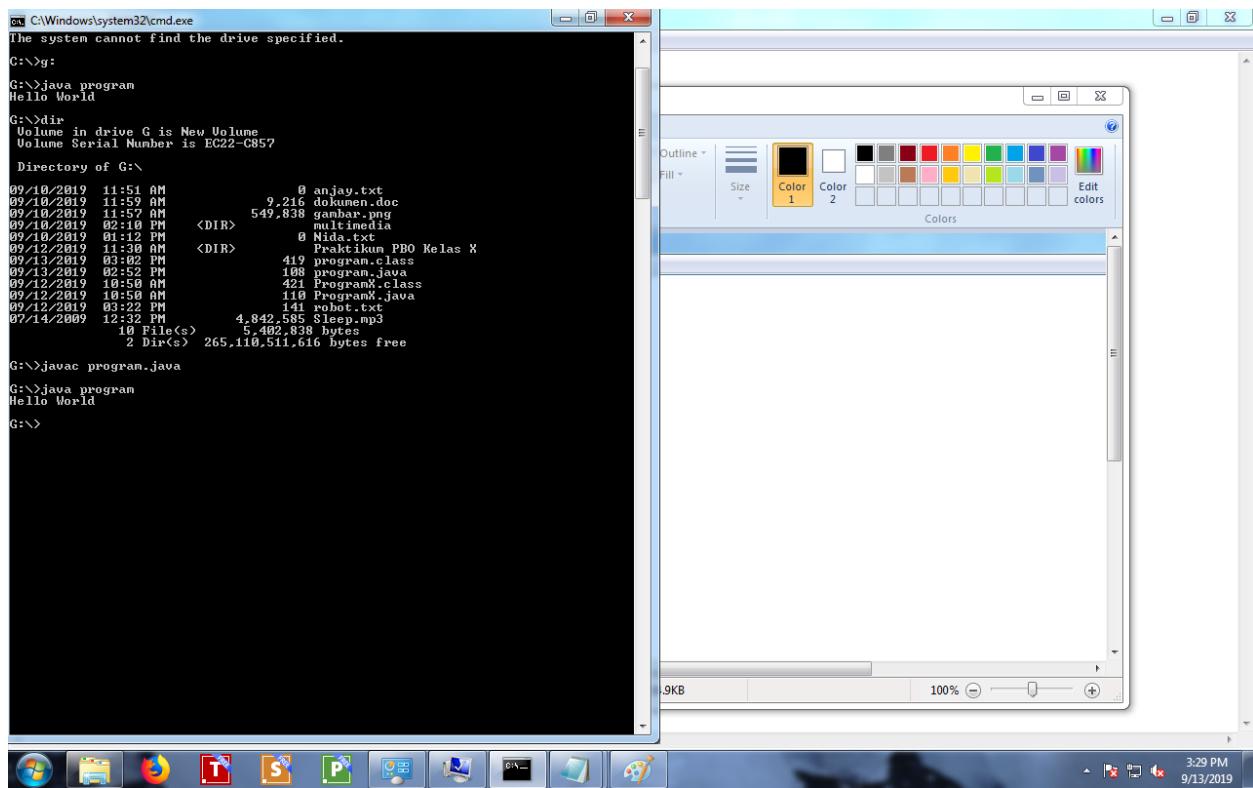
Nama : Luqman Hanung Asidiq
NIM : L200180035
Kelas : B

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 1



```
program.java - Notepad
File Edit Format View Help
public class program{
    public static void main(String[] args){
        System.out.println("Hello world");
    }
}
```



Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 2

C:\Windows\system32\cmd.exe

```
G:>javac rotiku.java
rotiku.java:16: error: incompatible types: String cannot be converted to int
        berat = beratRoti;
                ^
rotiku.java:20: error: incompatible types: String cannot be converted to double
        harga = hargaRoti;
                ^
2 errors

G:>javac rotidemo.java
G:>java rotidemo
warna roti: hijau
rasa roti : pandan
berat roti : 30
harga roti : Rp. 6000.0
G:>
```

rotiku.java - Notepad

```
File Edit Format View Help
public class rotiku{
    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 +"\n" +"gr" +
            "harga roti : Rp. " + harga);
    }
}
```

```
rotidemo.java - Notepad
```

```
File Edit Format View Help
public class rotidemo{
    public static void main(String[] args) {
        rotiku roti = new rotiku();
        roti.beriwarna("hijau");
        roti.berirasa("pandan");
        roti.timbangberat(30);
        roti.hargajual(6000);
        roti.infoRoti();
    }
}
```

```
{  
{  
{  
  
    warna +"\n" +  
    rasa + "\n" +  
    + berat +"\n" +"gr"+  
    . " + harga);  
}
```

C:\Windows\system32\cmd.exe

```
G:>javac rotiku.java
rotiku.java:16: error: incompatible types: String cannot be converted to int
        berat = beratRoti;
               ^
rotiku.java:20: error: incompatible types: String cannot be converted to double
        harga = hargaRoti;
               ^
2 errors

G:>javac rotiku.java
G:>javac rotidemo.java
G:>java rotidemo
warna roti: hijau
berat roti : 30
berat roti : 30
harga roti : Rp. 6000.0
G:>
```

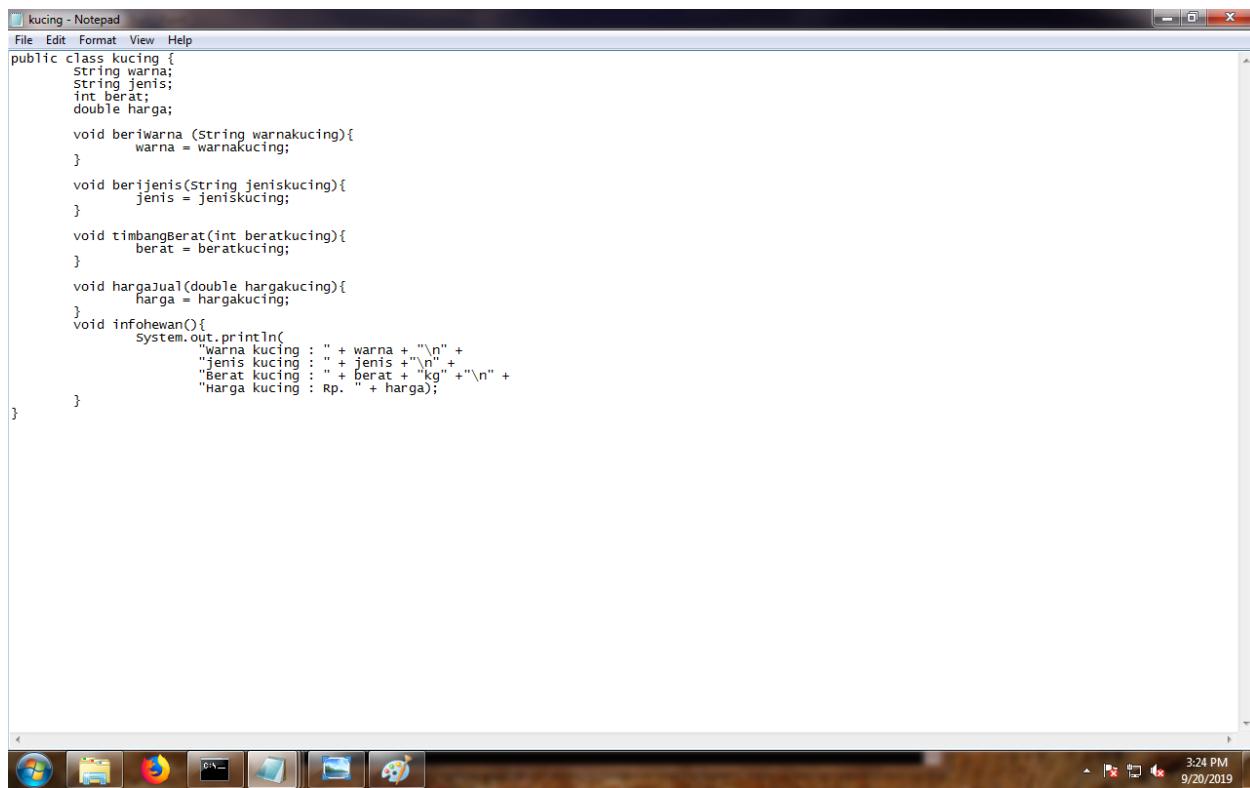
Size

Size
0 KB
9 KB
537 KB
0 KB
1 KB
4,730 KB
1 KB
2 KB
1 KB

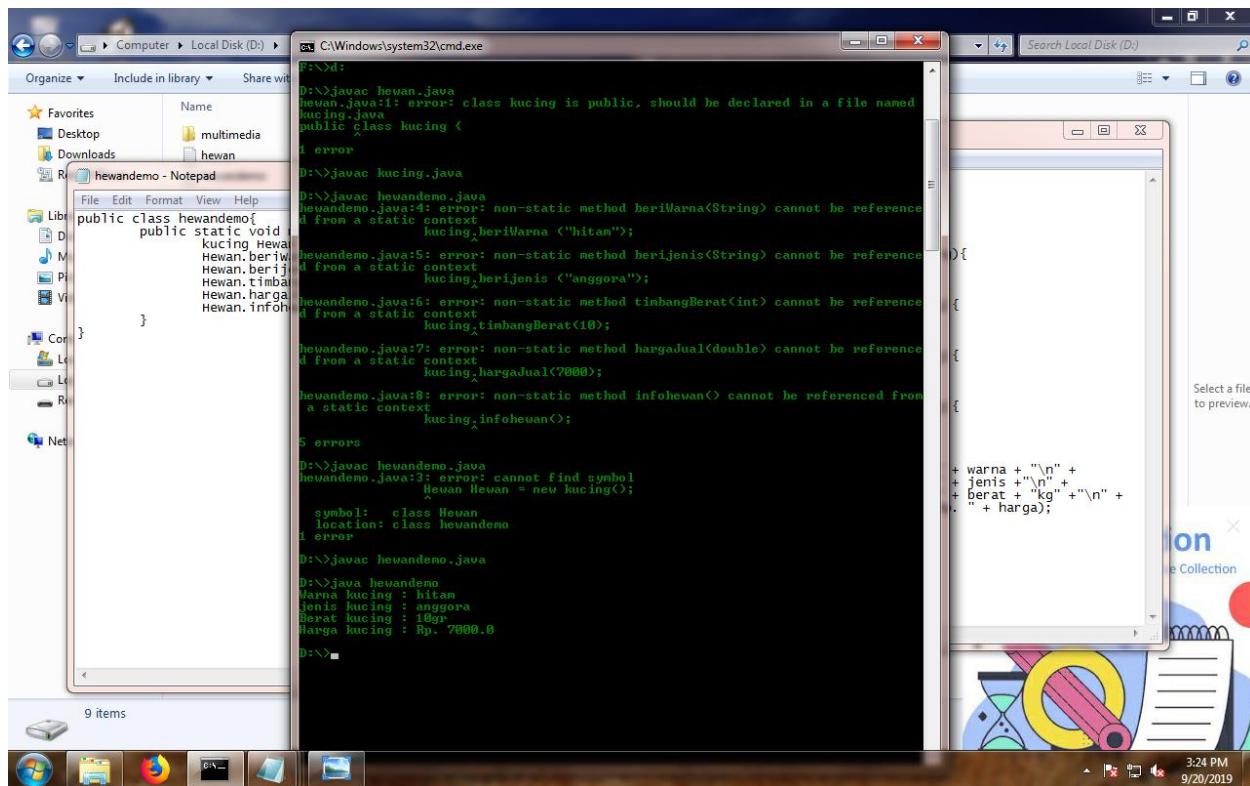
hewandemo - Notepad

```
File Edit Format View Help
public class hewandemo{
    public static void main(String[] args){
        Kucing Hewan = new Kucing();
        Hewan.beriwarna ("hitam");
        Hewan.berijenis ("anggora");
        Hewan.timbangBerat(10);
        Hewan.hargajual(7000);
        Hewan.infohewan();
    }
}
```

3:57 PM
9/13/2019



```
File Edit Format View Help
public class kucing {
    String warna;
    String jenis;
    int berat;
    double harga;
    void beriwarna (String warnakucing){
        warna = warnakucing;
    }
    void berijenis(String jeniskucing){
        jenis = jeniskucing;
    }
    void timbangBerat(int beratkucing){
        berat = beratkucing;
    }
    void hargajual(double hargakucing){
        harga = hargakucing;
    }
    void infowewan(){
        System.out.println(
            "warna kucing : " + warna + "\n" +
            "jenis kucing : " + jenis +"\n" +
            "Berat kucing : " + berat + "kg" +"\n" +
            "Harga kucing : Rp. " + harga);
    }
}
```



```
C:\Windows\system32\cmd.exe
D:>javac hewan.java
hewan.java:1: error: class kucing is public, should be declared in a file named
kucing.java
public class kucing <
1 error

D:>javac hewandemo.java
hewandemo.java:4: error: non-static method beriWarna(String) cannot be referenced
from a static context
        kucing.beriWarna ("hitam");
hewandemo.java:5: error: non-static method berijenis(String) cannot be referenced
from a static context
        kucing.berijenis ("anggora");
hewandemo.java:6: error: non-static method timbangBerat(int) cannot be referenced
from a static context
        kucing_timbangBerat(10);
hewandemo.java:7: error: non-static method hargajual(double) cannot be referenced
from a static context
        kucing_hargajual(7000);
hewandemo.java:8: error: non-static method infowewan() cannot be referenced from
a static context
        kucing_infowewan();
5 errors

D:>javac hewandemo.java
hewandemo.java:5: error: cannot find symbol
        Hewan Hewan = new kacing();
          symbol:   class Hewan
          location: class hewandemo
1 error

D:>java hewandemo
Harna kucing : hitam
jenis kucing : anggora
Berat kucing : 10gr
Harga kucing : Rp. 7000.0
```

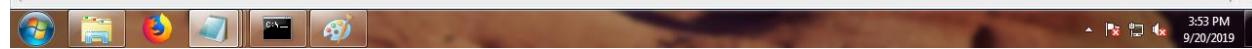
```
car - Notepad
File Edit Format View Help
public class car {
    int cadence;
    int speed;
    int gear;
    void changecadence (int gantirama){
        cadence = gantirama;
    }
    void speedup(int tambahkecepatan){
        speed = tambahkecepatan;
    }
    void changegear(int tambahgigi){
        gear = tambahgigi;
    }

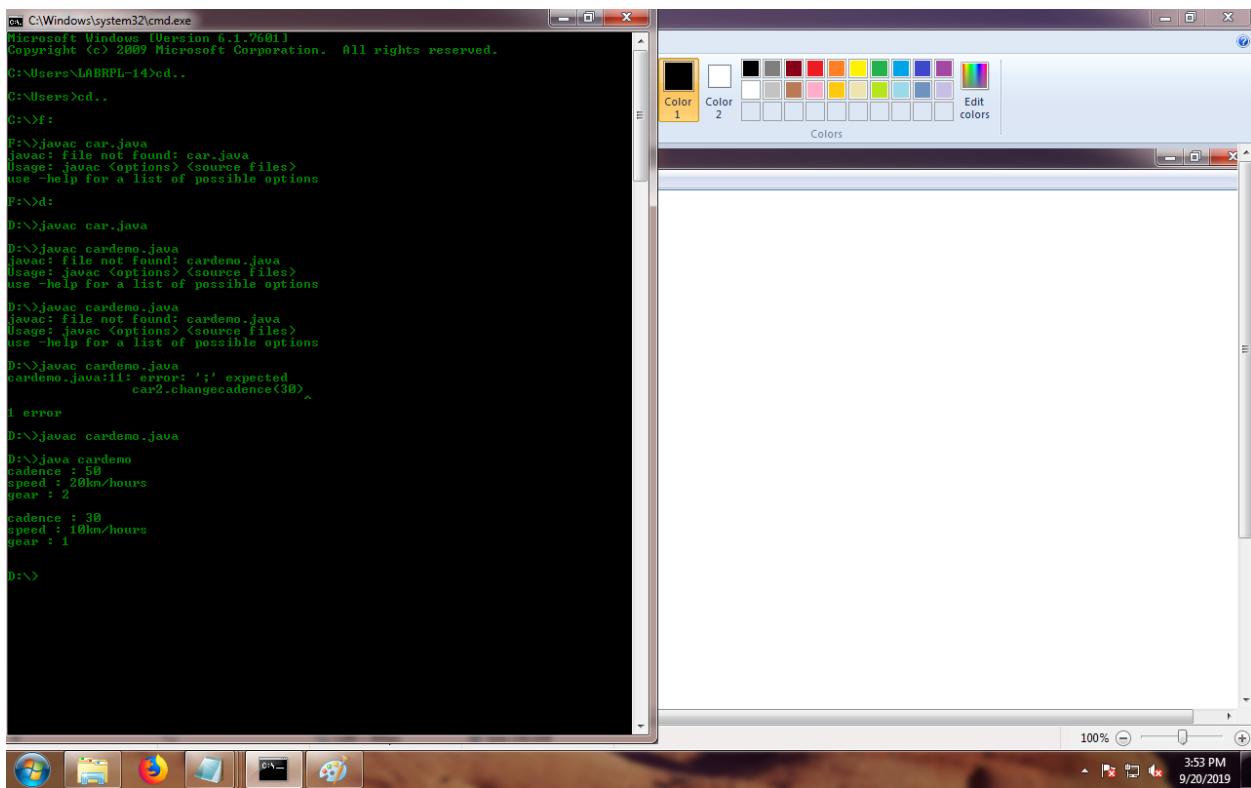
    void printinfo(){
        System.out.println(
            "cadence : " + cadence + "\n" +
            "speed : " + speed + "km/hourscd..!" + "\n" +
            "gear : " + gear + "\n");
    }
}
```

```
cardemo - Notepad
File Edit Format View Help
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();
    }
}
```

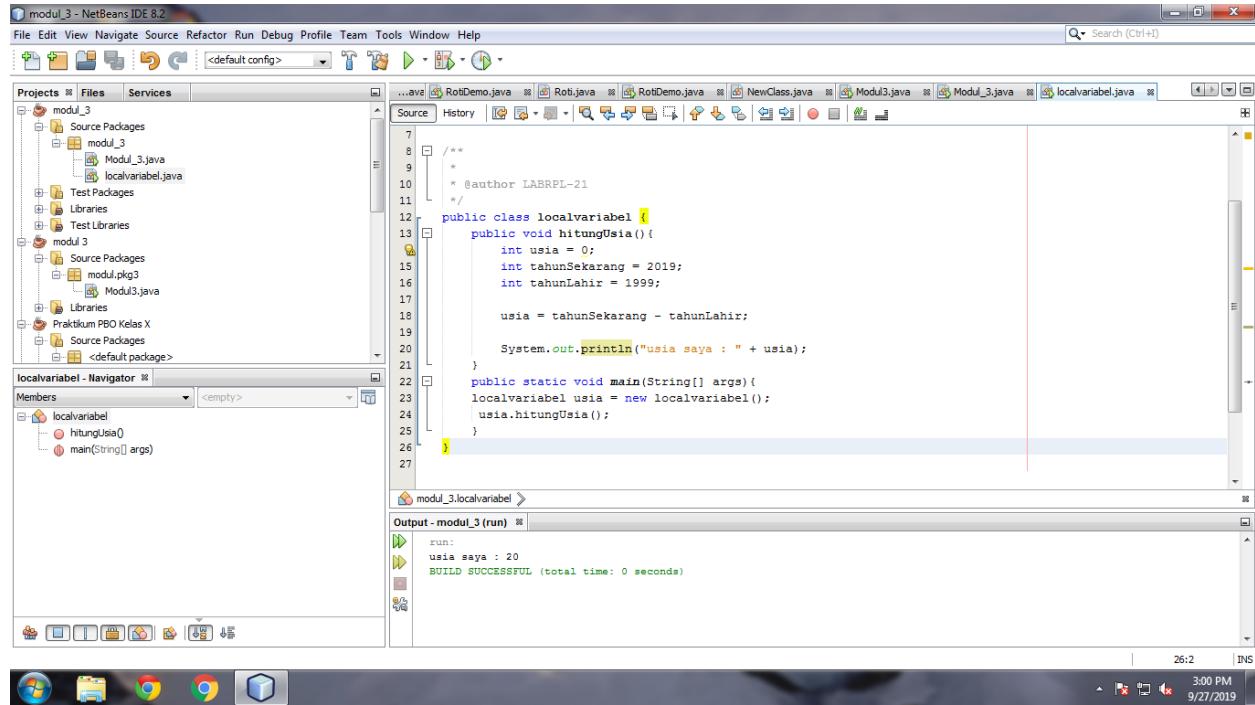




Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 3

1. Local variable



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

- Title Bar:** modul_3 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help
- Toolbar:** Standard NetBeans toolbar icons.
- Projects Tab:** Shows the project structure with packages like modul_3, modul_3, and Praktikum PBO Kelas X.
- Files Tab:** Shows files like RotiDemo.java, Roti.java, RotiDemo.java, NewClass.java, Modul3.java, Modul_3.java, and localvariabel.java.
- Editor:** Displays the Java code for the localvariabel class:

```
7
8 /**
9 * @author LABRPL-21
10 */
11
12 public class localvariabel {
13     public void hitungUsia() {
14         int usia = 0;
15         int tahunSekarang = 2019;
16         int tahunLahir = 1999;
17
18         usia = tahunSekarang - tahunLahir;
19
20         System.out.println("usia saya : " + usia);
21     }
22     public static void main(String[] args) {
23         localvariabel usia = new localvariabel();
24         usia.hitungUsia();
25     }
26 }
27
```
- Navigator:** Shows the members of the localvariabel class: hitungUsia() and main(String[] args).
- Output Tab:** Shows the run output:

```
run:
usia saya : 20
BUILD SUCCESSFUL (total time: 0 seconds)
```
- System Tray:** Shows standard Windows system tray icons.
- Status Bar:** Shows the date and time: 9/27/2019, 3:00 PM, and the IDE status: 26:2 | INS.

2. Latihan 1

modul_3 - NetBeans IDE 8.2

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

Projects Files Services

Source History | <default config> | Search (Ctrl+F)

...java Rob.java RobDemo.java NewClass.java Modul3.java Modul_3.java localvariabel.java beratubuh.java

modul_3

Source Packages modul_3 Modul_3.java beratlahir.java beratubuh.java localvariabel.java

Test Packages Libraries Test Libraries modul_3 Source Packages modul.prg3 Modul3.java Libraries Praktikum PBO Kelas X

Navigator Members <empty>

```

10  * @author LABRPL-21
11  */
12  public class localvariabel {
13      int usia = 0;
14      int tahunSekarang = 2019;
15      int tahunLahir = 1999;
16
17      usia = tahunSekarang - tahunLahir;
18
19      System.out.println("usia saya : " + usia);
20
21  }
22  public void beratbadan(){
23      int berat = 0;
24      int beratlahir = 3;
25      int beratbadan = 50;
26
27      berat = beratlahir + (usia/2);
28
29      System.out.println("berat badan : " + berat);
30  }
31  public static void main(String[] args){
32      modul_3.localvariabel > beratbadan >
33  }

```

Output - modul_3 (run) *

```

usia saya : 20
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - cannot find symbol
    symbol:   variable usia
    location: class modul_3.localvariabel
        at modul_3.localvariabel.main(modul_3.localvariabel.java:27)
        at modul_3.localvariabel.main(modul_3.localvariabel.java:34)
C:\Users\LABRPL-21\AppData\Local\NetBeans\Cache\8.2\executor-snippets\run.xml:53: Java returned: 1
BUILD FAILED (total time: 1 second)

```

29:51 | INS

3. Instance variable & Latihan 2

modul_3 - NetBeans IDE 8.2

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

Projects Files Services

Source History | <default config> | Search (Ctrl+F)

...java RotDemo.java Rob.java RotDemo.java NewClass.java Modul3.java Modul_3.java localvariabel.java

modul_3

Source Packages modul_3 Modul_3.java beratlahir.java beratubuh.java localvariabel.java

Test Packages Libraries Test Libraries modul_3 Source Packages modul.prg3 Modul3.java Libraries Praktikum PBO Kelas X

Navigator Members <empty>

```

10  * @author LABRPL-21
11  */
12  public class localvariabel {
13      int umur = 0;
14      public void hitungUsia(){
15          int usia = 0;
16          int tahunSekarang = 2019;
17          int tahunLahir = 1999;
18
19          usia = tahunSekarang - tahunLahir;
20
21          System.out.println("usia saya : " + usia);
22      }
23      public void beratbadan(){
24          int berat = 0;
25          int beratlahir = 3;
26          int beratbadan = 50;
27
28          berat = beratlahir + (umur/2);
29
30          System.out.println("berat badan : " + berat);
31      }
32      public static void main(String[] args){
33          localvariabel usia = new localvariabel();
34          usia.hitungUsia();
35          usia.beratbadan();
36      }
37  }

```

modul_3.localvariabel > beratbadan >

28:35 | INS

4. Static Variable

modul_3 - NetBeans IDE 8.2

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

Projects Services Files

Source Packages modul_3 Modul_3.java beratlahr.java berattubuh.java localvariabel.java staticvariabel.java

Test Packages

modul_3 Source Packages modul.pkg3 Modul3.java

Libraries

main - Navigator

Members staticvariabel

- firstMethod()
- main(String[] args)
- secondMethod()
- akreditasi : char
- jurusan : String

Source History

```

7  /**
8  * 
9  * @author LABRPL-21
10 */
11
12 public class staticvariabel {
13     public static char akreditasi;
14     public static final String jurusan = "informatika";
15
16     void firstMethod(){
17         System.out.println(jurusan);
18     }
19     void secondMethod(){
20         System.out.println("akreditasi : " + akreditasi);
21     }
22
23     public static void main(String[] args){
24         staticvariabel.akreditasi = 'B';
25         staticvariabel a = new staticvariabel();
26         a.firstMethod();
27         a.secondMethod();
28     }

```

Output - modul_3 (run)

```

run:
informatika
akreditasi : B
BUILD SUCCESSFUL (total time: 1 second)

```

Finished building modul_3 (run).

4:11 PM 9/27/2019

5. Method Non void

modul 3 - NetBeans IDE 8.2

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

Projects Services Files

Start Page JavaApplication1.java NewClass.java Pegawai.java Modul3.java nonvoidmethod.java

Source History

Source Packages JavaApplication1.java

Test Packages

modul_3 Source Packages modul.pkg3 Modul3.java nonvoidmethod.java

Libraries

modul 3 Source Packages modul.pkg3 Modul3.java

Test Packages

Libraries

Output - modul 3 (run)

```

run:
aku
1201010035
BUILD SUCCESSFUL (total time: 2 seconds)

```

3 /*
4 * To change this template file, choose Tools | Templates,
5 * and open the template in the editor.
6 */
7 package modul.pkg3;
8
9 /**
10 * @author assas
11 */
12
13 public class nonvoidmethod {
14 String name = "aku";
15 String nim = "1201010035";
16 public String getName(){
17 return name;
18 }
19 public String getNIM(){
20 return nim;
21 }
22
23 public void templa(){
24 System.out.println(name);
25 System.out.println(nim);
26 }
27
28 public static void main(String[] args){
29 nonvoidmethod aku = new nonvoidmethod();
30 aku.templa();
31 }
32
33

6. Parameter Method

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

- Title Bar:** module 3 - NetBeans IDE 8.2
- Toolbar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Search Bar:** <default config>
- Projects Tab:** Shows the project structure with modules, source packages, and files like JavaApplication1.java, NewClass.java, Pegawai.java, Modul3.java, nonvoidmethod.java, and methodparameter.java.
- Code Editor:** Displays the Java code for the methodparameter class. The main method is highlighted, showing the execution path. The code includes imports, a license header, and a main method that creates an instance of methodparameter and prints its name.
- Output Window:** Shows the build log for module 3 (run). It indicates a successful build with a total time of 2 seconds.
- Status Bar:** Shows the status "Finished building module 3 (run)".
- System Tray:** Shows icons for battery, signal strength, and system status.

7. Latihan 3

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

- Title Bar:** modul 3 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Toolbar:** Includes icons for New, Open, Save, Cut, Copy, Paste, Find, Replace, and others.
- Source Editor:** The main window displays Java code in `JavaApplication1.java`. The code involves creating objects of `Pegawai` and `Latihan3` classes, setting their properties, and printing them to the console. The code is as follows:

```
33     ql.setNama("303.3");
34     System.out.println(ql.nama +"\n" + ql.nip +"\n" + ql.gaji +"\n");
35
36     latihan3 q3 = new latihan3();
37     q3.setNama("docir");
38     q3.setNip(3522);
39     q3.setGaji(103.3);
40
41     System.out.println(ql.nama +"\n" + ql.nip +"\n" + ql.gaji +"\n");
42
43     latihan3 q3 = new latihan3();
44     q3.setNama("ruzi");
45     q3.setNip(3522);
46     q3.setGaji(1103.3);
47
48     System.out.println(ql.nama +"\n" + ql.nip +"\n" + ql.gaji +"\n");
49
50     latihan3 q3 = new latihan3();
51     q3.setNama("muji");
52     q3.setNip(552);
53     q3.setGaji(1255.3);
54
55     System.out.println(ql.nama +"\n" + ql.nip +"\n" + ql.gaji +"\n");
56
57     latihan3 q5 = new latihan3();
58     q5.setNama("doco");
59     q5.setNip(3232);
60     q5.setGaji(3424323.3);
61
62     System.out.println(ql.nama +"\n" + ql.nip +"\n" + ql.gaji +"\n");
63 }
```

- Output Terminal:** Shows the build log and execution results. It lists file paths like `b03.3`, `b0232`, and `b03.3`, followed by the message "BUILD SUCCESSFUL (total time: 2 seconds)".
- Project Explorer:** On the left, it shows the project structure with packages like `modul 3` and files like `JavaApplication1.java`, `NewClass.java`, `Pegawai.java`, etc.

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

- Title Bar:** modul 3 - NetBeans IDE 8.2
- Toolbar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Search Bar:** Search (Ctrl+F)
- Project Explorer:** Shows the project structure with modules JavaApplication, modul 3, and test packages.
- Code Editor:** The main editor window displays Java code for `JavaApplication1.java`, `NewClass.java`, `Pegawai.java`, `Modul3.java`, `nonvoidmethod.java`, `methodparameter.java`, and `latihan3.java`. The code includes printing names and salaries.
- Output Window:** The "Output - modul 3 (run)" window shows the build process and successful execution:

```
run:
  build
  build
  build

  build
  build
  build

  build
  build
  build

BUILD SUCCESSFUL (total time: 2 seconds)
```

8. Method Void

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" which includes "Source Packages" containing "modul.pkg3" with files like "Modul3.java", "methodparameter.java", "nonvoidmethod.java", and "voidmethod.java". The right pane shows the code editor with the file "voidmethod.java" open. The code defines a class "voidmethod" with a constructor taking three integer parameters ("hour", "minute", "second") and a method "duration" that prints the total duration in the format "total waktu \n" + hour + ":" + minute + ":" + second. The output window at the bottom shows the result of running the code: "total waktu\n1jam30menit15detik" followed by "BUILD SUCCESSFUL (total time: 0 seconds)".

```
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.pkg3;
7
8  /**
9  *
10 * @author asus
11 */
12 public class voidmethod {
13     int hour, minute, second;
14
15     public void duration(int hour, int minute, int second) {
16         this.hour = hour;
17         this.minute = minute;
18         this.second = second;
19     }
20
21     public void info() {
22         System.out.println("total waktu \n" + hour + ":" + minute + ":" + second + "detik");
23     }
24
25     public static void main(String[] args) {
26         voidmethod bfa = new voidmethod();
27         bfa.duration(1, 30, 15);
28         bfa.info();
29     }
30 }
31
32 modul.pkg3.voidmethod > ① main >
```

Output - modul 3 (run) :

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

9. Pekerjaan Rumah

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" which includes "Source Packages" containing "modul.pkg3" with files like "Modul3.java", "Nilai.java", and "voidmethod.java". The right pane shows the code editor with the file "Nilai.java" open. The code defines a class "Nilai" with three integer fields ("nilaitugas", "nilaiuas", "nilaitotal"). It has a constructor taking three integers and methods "nilai" (sets the values), "nilaitotal" (calculates the total average), and "info" (prints the values). The output window at the bottom shows the result of running the code: "nilai total : 99" followed by "BUILD SUCCESSFUL (total time: 0 seconds)".

```
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.pkg3;
7
8  /**
9  *
10 * @author asus
11 */
12 public class Nilai {
13     int nilaitugas;
14     int nilaiuas;
15     int nilaitotal;
16
17     public void nilai(int nilaitugas, int nilaiuas, int nilaitotal) {
18         this.nilaitugas = nilaitugas;
19         this.nilaiuas = nilaiuas;
20         this.nilaitotal = nilaitugas;
21     }
22
23     public int nilaitotal() {
24         return nilaitotal = (nilaitugas + nilaiuas + nilaitugas)/3;
25     }
26
27     public void info(){
28         System.out.println("nilai total : " + nilaitotal);
29     }
30
31     public static void main(String[] args) {
32         Nilai total = new Nilai();
33         total=nilai(98, 99, 97);
34         total=nilaitotal();
35         total.info();
36     }
37 }
38
39 modul.pkg3.Nilai > ① main >
```

Output - modul 3 (run) :

```
run:
nilai total : 99
BUILD SUCCESSFUL (total time: 0 seconds)
```

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 4

Latihan 1

The screenshot shows the NetBeans IDE 8.2 interface with a project named "modul4". The "Source" tab is selected, displaying the code for the "privatemodifier" class:

```
4  * and open the template in the editor.
5  *
6  package modul4;
7
8 /**
9  *
10 * @author LABRPL-21
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 }
```

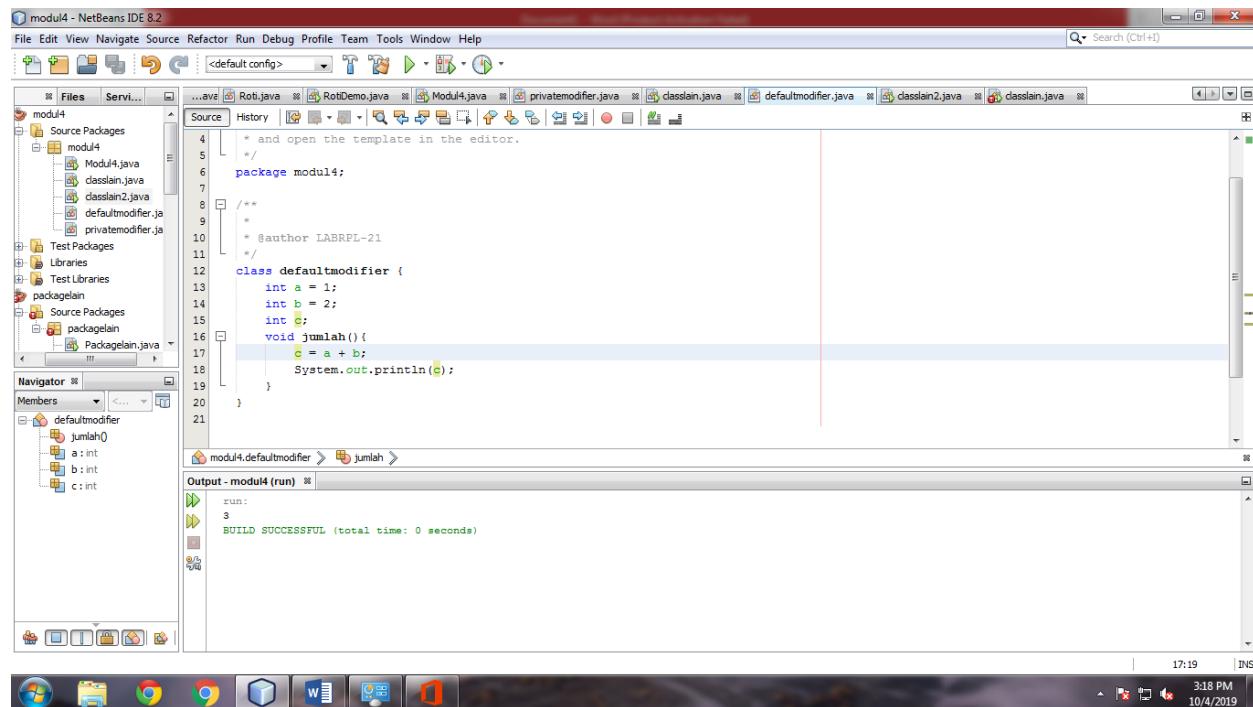
The "Output" window shows the results of a run:

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

The "modul4.classmain" file is also visible in the project tree.

At the bottom, the taskbar shows the date and time as 10/4/2019 2:59 PM.

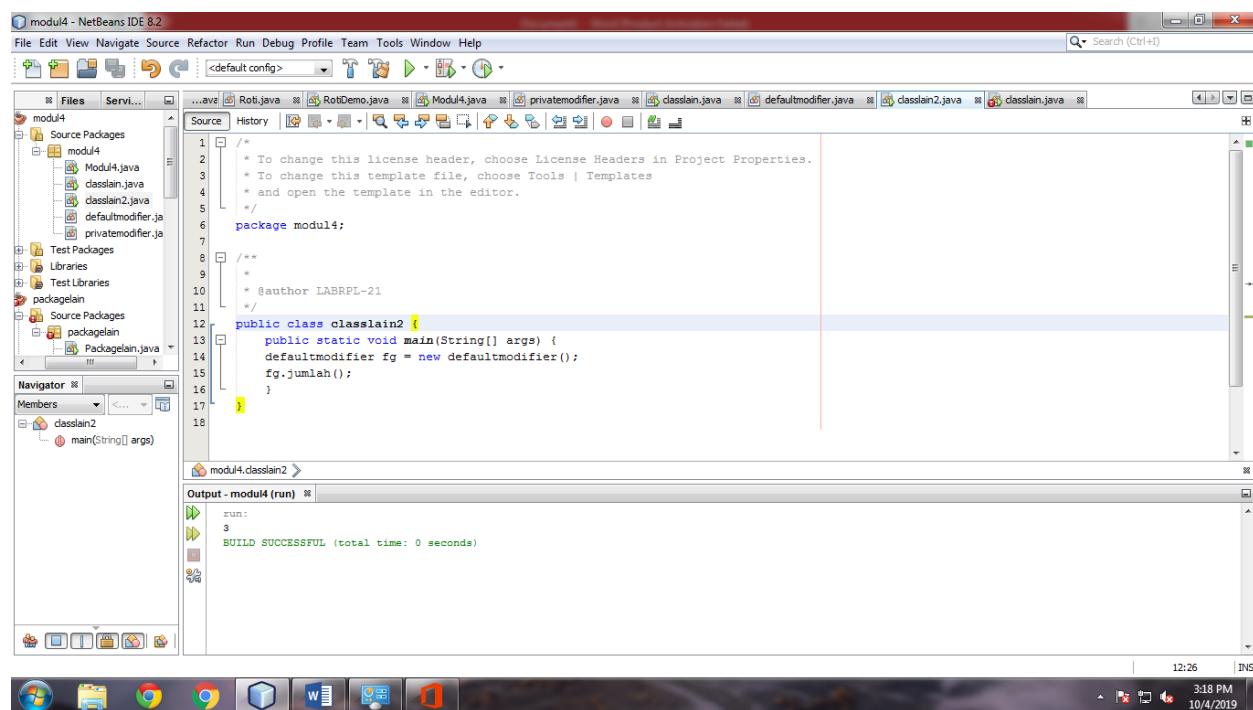
Latihan 2



```
modul4 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...ave Roti.java RotiDemo.java Modul4.java privatemodifier.java classan.java defaultmodifier.java classain2.java classain.java <default config> Search (Ctrl+I)
modul4
Source Packages
modul4
  Modul4.java
  classan.java
  classan2.java
  defaultmodifier.java
  privatemodifier.java
Test Packages
Libraries
Test Libraries
pakagelain
Source Packages
  pakagelain
    Pakagelain.java
Navigator
Members
  defaultmodifier
    jumlah()
      a : int
      b : int
      c : int
Output - modul4 (run) & 17:19 | INS
run:
3
BUILD SUCCESSFUL (total time: 0 seconds)
10/4/2019 3:18 PM
```

1. Akses dalam satu package

- Bisa diakses karena class tersebut terdapat dalam package yang sama



```
modul4 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...ave Roti.java RotiDemo.java Modul4.java privatemodifier.java classan.java defaultmodifier.java classain2.java classain.java <default config> Search (Ctrl+I)
modul4
Source Packages
modul4
  Modul4.java
  classan.java
  classan2.java
  defaultmodifier.java
  privatemodifier.java
Test Packages
Libraries
Test Libraries
pakagelain
Source Packages
  pakagelain
    Pakagelain.java
Navigator
Members
  classain2
    main(String[] args)
Output - modul4 (run) & 12:26 | INS
run:
3
BUILD SUCCESSFUL (total time: 0 seconds)
10/4/2019 3:18 PM
```

2. Mengakses dalam package yang lain

- Tidak bisa diakses karena method tersebut terdapat dalam package yang berbeda

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

- Title Bar:** packagelain - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar.
- Project Explorer:** Shows the project structure with packages like Modul4, classlain, classlain2, defaultmodifier, and privatemodifier.
- Code Editor:** Displays the Java code for `Classlain.java`. The code includes imports, a package declaration, a class definition, and a main method. A red error underline is under the word `defaultmodifier` in the `main` method.
- Output Window:** Shows the build log and run output. It indicates a build failure due to an unresolvable symbol `defaultmodifier` in the `main` method of `Classlain.java`.
- Status Bar:** Shows the status "Build of packagelain (run) failed." and the system tray.

Latihan 3

```

modul4 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Modul4.java privatemodifier.java classain.java defaultmodifier.java classain2.java classain.java protectedmodifier.java classain3.java
Source History <default config> Search (Ctrl+F)
odul4
Source Packages
  modul4
    Modul4.java
    classain.java
    classain2.java
    classain3.java
    defaultmodifier.java
    privatemodifier.java
    protectedmodifier.java
Test Packages
Libraries
Test Libraries
Modul4
  Source Packages
    Navigator
      Members
        protectedmodifier
          printinfo()
          sendmessage()
Output 17:46 3:33 PM 10/4/2019

```

```

/*
 * 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 modul4;

/**
 *
 * @author LABRPL-21
 */
public class protectedmodifier {
    protected void printinfo() {
        System.out.println("protected modifier");
    }
    protected void sendmessage() {
        System.out.println("this is a message");
    }
}

```

➤ Bisa diakses dalam satu package yang sama.

```

modul4 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
...java Modul4.java privatemodifier.java classain.java defaultmodifier.java classain2.java classain.java protectedmodifier.java classain3.java
Source History <default config> Search (Ctrl+F)
odul4
Source Packages
  modul4
    Modul4.java
    classain.java
    classain2.java
    classain3.java
    defaultmodifier.java
    privatemodifier.java
    protectedmodifier.java
Test Packages
Libraries
Test Libraries
Modul4
  Source Packages
    Navigator
      Members
        classain3
          main(String[])
Output - modul4 (run) 16:26 3:34 PM 10/4/2019
run:
protected modifier
this is a message
BUILD SUCCESSFUL (total time: 0 seconds)
Output Finished building modul4 (run).

```

```

/*
 * 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 modul4;

public class classain3 {
    public static void main(String[] args) {
        protectedmodifier gh = new protectedmodifier();
        gh.printinfo();
        gh.sendmessage();
    }
}

```

Latihan 4

The screenshot shows the NetBeans IDE interface with the title bar "modul4 - 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, Cut, Copy, Paste, Find, Replace, and others. The left sidebar shows the project structure under "modul4" with files like Modul4.java, classain.java, classain2.java, classain3.java, classain4.java, defaultmodifier.java, privatemodifier.java, protectedmodifier.java, and publicmodifier.java. The main editor window displays the "publicmodifier.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 modul4;
7
8  /**
9   * @author LABRPL-21
10  */
11 public class publicmodifier {
12     public int a = 2;
13     public int b = 5;
14     public int c = 9;
15
16     public void kali(){
17         int d = a * b * c;
18         System.out.println("hasil kali = " + d);
19     }
20 }
21
22
```

1. Diakses dalam satu package

- Bisa diakses karena didalam package yang sama

The screenshot shows the NetBeans IDE interface with the title bar "modul4 - 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, Cut, Copy, Paste, Find, Replace, and others. The left sidebar shows the project structure under "modul4" with files like Modul4.java, classain.java, classain2.java, classain3.java, classain4.java, defaultmodifier.java, privatemodifier.java, protectedmodifier.java, and publicmodifier.java. The main editor window displays the "classain4.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 modul4;
7
8  /**
9   * @author LABRPL-21
10  */
11 public class classain4 {
12     public static void main(String[] args) {
13         publicmodifier gj = new publicmodifier();
14         gj.kali();
15     }
16 }
17
18
```

The "Output" window at the bottom shows the run results:

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

2. Akses dalam package lain

- Tidak bisa diakses karena berada diluar package

Latihan 4

```

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 packagelain;
7
8  /**
9   *
10  * @author LABRPL-21
11  */
12  public class classlain {
13      public static void main(String[] args) {
14          publicmodifier gj = new publicmodifier();
15          gj.kali();
16      }
17  }

```

Output - packagelain (run)

```

run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - cannot find symbol
symbol: class publicmodifier
location: class packagelain.classlain
        at packagelain.classlain.main(classlain.java:14)
C:\Users\LABRPL-21\AppData\Local\NetBeans\Cache\8.2\executor-snippets\run.xml:53: Java returned: 1
BUILD FAILED (total time: 1 second)

```

Output Build of packagelain (run) failed.

Latihan 4

```

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  public class publicmodifier {
9      public int a = 2;
10     public int b = 5;
11     public int c = 9;
12
13     public void kali(){
14         int d = a * b * c;
15         System.out.println("hasil kali = " + d);
16     }
17     public void tambah(){
18         int e = a + b + c;
19         System.out.println("hasil tambah = " + e);
20     }
21     public void kurang(){
22         int f = a - b - c;
23         System.out.println("hasil kurang = " + f);
24     }
25     public void bagi(){
26         double g = a / b / c;
27         System.out.println("hasil bagi = " + g);
28     }
29     public void rata_rata(){
30         int r = a + b + c / 3;
31         System.out.println("hasil rata rata = " + r);
32     }
33 }
34
35
36
37
38

```

Output

1. 4:01 PM 10/4/2019

modul4 - NetBeans IDE 8.2

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

Search (Ctrl+F)

Servi... Files <default config>

Source Packages

- Source Packages
 - Praktikum PBO Kelas X
 - Source Packages
 - <default package>
 - Roti.class
 - Rot.java
 - RotDemo.class
 - RotDemo.java

Test Packages

Libraries

Test Libraries

main - Navigator

Members

classlain4

main(String[] args)

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 modul4;
7
8 /**
9 *
10 * @author LABRPL-21
11 */
12 public class classlain4 {
13 public static void main(String[] args) {
14 publicmodifier gj = new publicmodifier();
15 gj.kali();
16 gj.tambah();
17 gj.kurang();
18 gj.bagi();
19 gj.rata_rata();
20 }
21 }
22

Output - modul4 (run)

run:
hasil kali = 90
hasil tambah = 16
hasil kurang = -12
hasil bagi =0.0
hasil rata rata = 10
BUILD SUCCESSFUL (total time: 0 seconds)

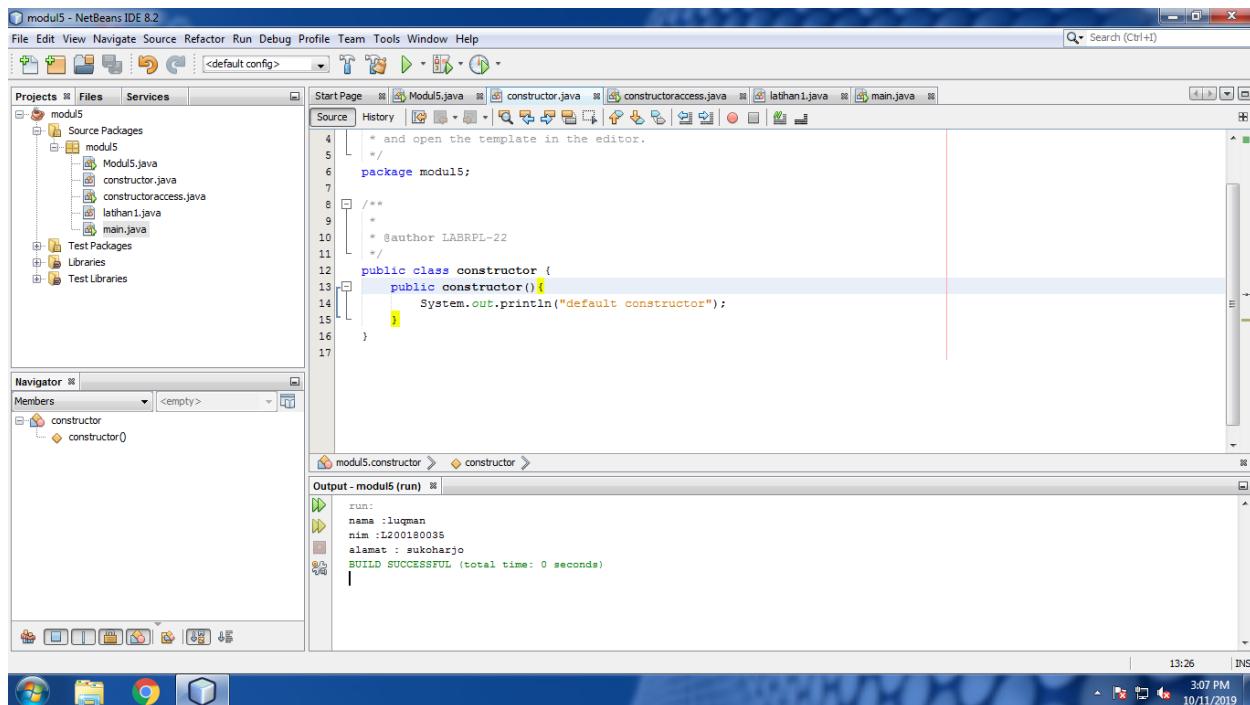
Output Finished building modul4 (run). 19:24 4:02 PM 10/4/2019

Windows Taskbar

2.

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 5



modul5 - NetBeans IDE 8.2

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

Projects Files Services

modul5

Source Packages modul5

- Modul5.java
- constructor.java
- constructoraccess.java
- latihan1.java
- main.java

Test Packages Libraries Test Libraries

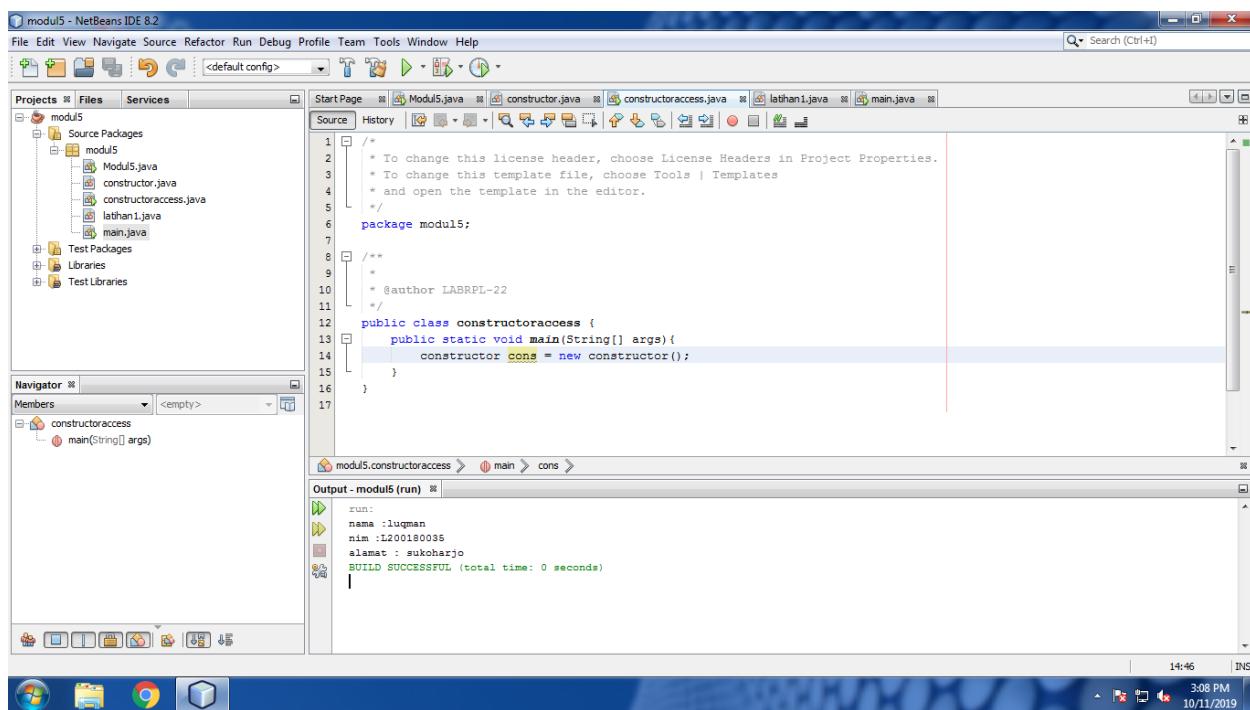
Navigator Members <empty>

constructor

Output - modul5 (run) run:
nama :lugman
nim :L200180035
alamat : sukoharjo
BUILD SUCCESSFUL (total time: 0 seconds)

13:26 10/11/2019

```
4  * and open the template in the editor.
5  */
6  package modul5;
7
8  /**
9  *
10  * @author LABRPL-22
11  */
12 public class constructor {
13     public constructor(){
14         System.out.println("default constructor");
15     }
16 }
17
```



modul5 - NetBeans IDE 8.2

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

Projects Files Services

modul5

Source Packages modul5

- Modul5.java
- constructor.java
- constructoraccess.java
- latihan1.java
- main.java

Test Packages Libraries Test Libraries

Navigator Members <empty>

constructoraccess main(args)

Output - modul5 (run) run:
nama :lugman
nim :L200180035
alamat : sukoharjo
BUILD SUCCESSFUL (total time: 0 seconds)

14:46 10/11/2019

```
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 modul5;
7
8  /**
9  *
10  * @author LABRPL-22
11  */
12 public class constructoraccess {
13     public static void main(String[] args){
14         constructor cons = new constructor();
15     }
16 }
```

Latihan 1

modul5 - NetBeans IDE 8.2

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

Projects Files Services

modul5

Source Packages

- modul5
- Modul5.java
- constructor.java
- constructoraccess.java
- latihan1.java
- main.java

Test Packages

Libraries

Test Libraries

Navigator

Members

latihan1

- latihan10
- alamat : String
- nama : String
- nim : String

Start Page Modul5.java constructor.java constructoraccess.java latihan1.java main.java

Source History

```
5  /*
6   * package modul5;
7
8  /**
9   * 
10  * @author LABRPL-22
11  */
12 public class latihan1 {
13     String nama = "lugman";
14     String nim = "L200180035";
15     String alamat = "sukoharjo";
16
17     public latihan1(){
18         System.out.println("nama :" + nama);
19         System.out.println("nim :" + nim);
20         System.out.println("alamat : " + alamat);
21     }
22 }
```

Output - modul5 (run)

```
run:
nama :lugman
nim :L200180035
alamat : sukoharjo
BUILD SUCCESSFUL (total time: 0 seconds)
```

20:50 | 1NS

3:09 PM 10/11/2019

modul5 - NetBeans IDE 8.2

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

Projects Files Services

modul5

Source Packages

- modul5
- Modul5.java
- constructor.java
- constructoraccess.java
- latihan1.java
- main.java

Test Packages

Libraries

Test Libraries

Navigator

Members

main

- main(String[] args)

Start Page Modul5.java constructor.java constructoraccess.java latihan1.java main.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 modul5;
7
8  /**
9   * 
10  * @author LABRPL-22
11  */
12 public class main {
13     public static void main(String[] args){
14         latihan1 hg = new latihan1();
15     }
16 }
```

Output - modul5 (run)

```
run:
nama :lugman
nim :L200180035
alamat : sukoharjo
BUILD SUCCESSFUL (total time: 0 seconds)
```

15:9 | 1NS

3:09 PM 10/11/2019

modul5 - NetBeans IDE 8.2

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

Projects Files Services

Source History

...ava constructor.java constructoraccess.java lathan1.java main.java paramconstructor.java constructoraccess2.java

modul5

Source Packages

modul5

Modul5.java

constructor.java

constructoraccess.java

constructoraccess2.java

lathan1.java

main.java

paramconstructor.java

Test Packages

Libraries

Test Libraries

Navigator

Members

paramconstructor

paramconstructor(String nama, int semester, String nim)

info()

nama : String

nim : String

semester : int

Source

```
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6 package modul5;
7
8 /**
9 * @author LABRPL-22
10 */
11 public class paramconstructor {
12     String nama, nim;
13     int semester;
14
15     public paramconstructor(String nama, int semester, String nim){
16         this.nama = nama;
17         this.semester = semester;
18         this.nim = nim;
19     }
20
21     public void info(){
22         System.out.println("nama :" + nama + "\nnim :" + nim + "semester : " + semester);
23     }
24 }
25
26
```

modul5.paramconstructor > info >

24:6 24:6 INS

3:18 PM 10/11/2019

modul5 - NetBeans IDE 8.2

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

Projects Files Services

Source History

...ava constructor.java constructoraccess.java lathan1.java main.java paramconstructor.java constructoraccess2.java

modul5

Source Packages

modul5

Modul5.java

constructor.java

constructoraccess.java

constructoraccess2.java

lathan1.java

main.java

paramconstructor.java

Test Packages

Libraries

Test Libraries

Navigator

Members

constructoraccess2

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 modul5;
7
8 /**
9 * @author LABRPL-22
10 */
11 public class constructoraccess2 {
12     public static void main(String[] args){
13         paramconstructor pc = new paramconstructor("lugman", 3, "1200180035");
14         pc.info();
15     }
16 }
17
```

modul5.constructoraccess2 > main >

Output - modul5 (run) :

```
run:
name :lugman
nim 1200180035
semester : 3
BUILD SUCCESSFUL (total time: 0 seconds)
```

15:19 15:19 INS

3:18 PM 10/11/2019

Latihan 2

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

- Title Bar:** modul5 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Includes icons for file operations like New, Open, Save, and Build.
- Projects Tab:** Shows the 'modul5' project with its source packages: 'modul5' and 'buku'. The 'modul5' package contains files: Modul5.java, buku.java, constructor.java, constructoraccess.java, constructoraccess2.java, latihan1.java, main.java, paramconstructor.java. The 'buku' package contains files: buku.java, constructor.java, constructoraccess.java, constructoraccess2.java, latihan1.java, main.java, paramconstructor.java.
- Code Editor:** Displays the Java code for the 'buku' class. The code includes annotations for authorship and copyright, and methods for setting properties and printing them.
- Navigator Tab:** Shows the members of the 'buku' class, including constructor parameters (String name, String judulbuku), methods (info1, info2, info3), and fields (cetakanke, hargajual, judulbuku, namapengarang, tahunterbit).
- Bottom Status Bar:** Shows the current file path: modul5.buku > main > gs >.
- Advertisement:** An AVG advertisement is visible on the right side of the screen.

The screenshot shows the NetBeans IDE interface with the title "modul5 - NetBeans IDE 8.2". The left sidebar displays the project structure under "modul5" with files like Modul5.java, buku.java, constructor.java, etc. The central editor pane shows Java code for a "buku" class and its main method:

```
33 }
34     public void info2(){
35         System.out.println("tahun terbit :" + tahunterbit + "\ncetakan ke : " + cetakanke);
36     }
37     public void info3(){
38         System.out.println("harga jual :" + hargajual);
39     }
40     public static void main(String[] args){
41         buku gs = new buku("veni", "ayat ayat cinta");
42         buku gs1 = new buku(2004, 2);
43         buku gs2 = new buku(340000);
44         gs.info1();
45         gs1.info2();
46         gs2.info3();
47     }
48 }
49 }
50 }
```

The bottom output window shows the execution results:

```
run:
  nama pengarang : veni
  judul buku : ayat ayat cinta
  tahun terbit :2004
  cetakan ke : 2
  harga jual :340000.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

A sidebar advertisement for AVG AntiVirus Free is visible on the right.

Tugas!!!!

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

- Title Bar:** modul5 - 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 two projects:
 - modul3:** Contains Source Packages (JavaApplication1, JavaApplication1.java, NewClass.java, pegaswai.java) and Test Packages (modul3).
 - modul5:** Contains Source Packages (modul5.java, demo.java, tugas.java) and Test Packages (modul5).
- Code Editor:** The `tugas.java` file is open, displaying the following Java code:

```
9      *
10     * @author asus
11     */
12    public class tugas {
13        public tugas(){
14            System.out.println("Luqman Hanung Asidiq");
15        }
16
17        String nama, alamat;
18        int umur;
19
20        public tugas(String nama, int umur, String alamat){
21            this.nama = nama;
22            this.umur = umur;
23            this.alamat = alamat;
24        }
25        public void info(){
26            System.out.println("nama : " + nama + "\numur : " + umur + "\nalamat: " + alamat);
27        }
28    }
```
- Output Terminal:** Shows the command `run` being executed.
- Status Bar:** ENG 9:08 AM

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

- Top Bar:** modul5 - NetBeans IDE 8.2, File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Search Bar:** Search (Ctrl+F).
- Project Explorer:** JavaApplication1, Test Packages, Libraries, modul3, modul5.
- Code Editor:** Modul5.java (selected), demo.java, tugas.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 modul5;
7
8  /**
9   *
10  * @author asus
11  */
12 public class demo {
13     public static void main(String[] args) {
14         tugas tgs = new tugas("luqman", 20, "sukoharjo");
15         tugas tgsl = new tugas();
16         tgs.info();
17     }
18 }
```

- Output Window:** modul5 demo > main > Output - modul5 (run) x
- Terminal Output:**

```
run:
Luqman Hanung Asidiq
name : luqman
umur : 20
alamat: sukoharjo
BUILD SUCCESSFUL (total time: 0 seconds)
```
- System Taskbar:** ENG 909 AM, 17:6.

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 6

Latihan

modul6 - NetBeans IDE 8.2

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

Projects Files Services

modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- kendaraan.java
- mobil.java
- pegawai.java
- pesawat.java
- programer.java
- programerImpl.java
- teknis.java
- test.java
- modul6

Source History <default config> C:\Users\LABRPL-11\Documents\NetBeansProjects\modul6\src\kendaraan.java (modified)

```
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-11
10 */
11 public class kendaraan {
12     int jumlahkursi = 10;
13     int jmlhroda = 30;
14     int berat = 1000;
15     public void pf(){
16         System.out.println("jumlah roda kendaraan: " + jmlhroda +
17             "\njumlah kursi kendaraan: " + jumlahkursi + "\nberat kendaraan:" + berat);
18     }
19 }
20
```

pf - Navigator Members

- kendaraan
- pf()
- berat : int
- jmlhroda : int
- jumlahkursi : int

17:17 3:42 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Projects Files Services

modul6

Source Packages <default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- kendaraan.java
- mobil.java
- pegawai.java
- pesawat.java
- programer.java
- programerImpl.java
- teknis.java
- test.java
- modul6

Source History <default config> C:\Users\LABRPL-11\Documents\NetBeansProjects\modul6\src\mobil.java (modified)

```
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-11
10 */
11 public class mobil extends kendaraan{
12     String bahanbakar = "bensin";
13     int jumlahkursi = 4;
14     public rt(){
15         System.out.println("bahan bakar mobil: " + bahanbakar + "\njumlah kursi mobil:" + jumlahkursi);
16     }
17 }
18
```

Navigator Members

- mobil :: kendaraan
- rt()
- bahanbakar : String
- jumlahkursi : int

15:19 3:42 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Projects Files Services

modul6

Source Packages

<default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- kendaraan.java
- mobil.java
- pegawai.java
- pesawat.java
- programer.java
- programerImpl.java
- telnis.java
- test.java

modul6

Source History

...java a.java b.java c.java inheritancestest.java kendaraan.java mobil.java pesawat.java test.java

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author LABRPL-11
10 */
11 public class pesawat extends kendaraan{
12     String bahanbakar = "avtur";
13     int berat = 60;
14     public yu(){
15         System.out.println("bahan bakar pesawat: " + bahanbakar + "\nberat pesawat: " + berat);
16     }
17 }
18
```

Navigator

Members

pesawat :: kendaraan

- yu()
- bahanbakar : String
- berat : int

15:54 3:42 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Projects Files Services

modul6

Source Packages

<default package>

- a.java
- b.java
- c.java
- inheritancetest.java
- kendaraan.java
- mobil.java
- pegawai.java
- pesawat.java
- programer.java
- programerImpl.java
- telnis.java
- test.java

modul6

Source History

...java a.java b.java c.java inheritancestest.java kendaraan.java mobil.java pesawat.java test.java

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

Output - modul6 (run)

```
run:
jumlah roda kendaraan: 30
jumlah kursi kendaraan: 10
berat kendaraan:1000
bahan bakar mobil: bensin
jumlah kursi mobil:4
bahan bakar pesawat: avtur
berat pesawat: 60
BUILD SUCCESSFUL (total time: 0 seconds)
```

Finished building modul6 (run).

19:14 3:43 PM 11/8/2019

Tugas

modul6 - NetBeans IDE 8.2

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

Source History ...ava bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java c.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakali.java segitigasamasidi.java teknisi.java test.java modul6 Test Packages Libraries Test Libraries

Source History ...ava bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

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

modul6 - NetBeans IDE 8.2

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

Source History ...ava bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java C.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakali.java segitigasamasidi.java teknisi.java test.java modul6 Test Packages Libraries

Source History ...ava bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

```
6 /**
7 *
8 * @author LABRPL-11
9 */
10 public class persegi extends bangundatar{
11     int s = 4;
12     public hitungluas(){
13         luas = s*s;
14         System.out.println("luas persegi" + luas);
15     }
16     public hitungkeliling(){
17         keliling = 4*s;
18         System.out.println("keliling persegi:" + keliling);
19     }
20     public static void main(String[] args){
21         persegi pu = new persegi();
22         pu.hitungluas();
23         pu.hitungkeliling();
24     }
25 }
26
27
```

Output - modul6 (run)

```
run
luas persegi:16.0
keliling persegi:16.0
BUILD SUCCESSFUL (total time: 1 second)
```

Output Finished building modul6 (run).

modul6 - NetBeans IDE 8.2

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

Source History ... bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java c.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakali.java segitigasamasidi.java teknisi.java test.java modul6 Test Packages Libraries Test Libraries

Source /* * 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 persegipanjang extends bangundatar{ int panjang; double lebar; }**

Output 11:40 4:04 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Source History ... bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakali.java segitigasamasidi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java C.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakali.java segitigasamasidi.java teknisi.java test.java modul6 Test Packages Libraries Test Libraries

Source /* * 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 segitiga extends bangundatar{ double alas;**

Output 12:17 4:04 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Source History ... bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakai.java segitigasamasisi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java c.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakai.java segitigasamasisi.java teknisi.java test.java modul6 Test Packages Libraries Test Libraries

```
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-11
10 */
11 public class segitigasamakai extends segitiga{
12     double sisimiring;
13 }
14
```

Output 12:23 4:04 PM 11/8/2019

modul6 - NetBeans IDE 8.2

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

Source History ... bangundatar.java persegi.java persegipanjang.java segitiga.java segitigasamakai.java segitigasamasisi.java

Projects Services Files modul6 <default package> a.java b.java bangundatar.java C.java inheritancetest.java kendaraan.java mobil.java pegawai.java persegi.java persegipanjang.java pesawat.java programer.java programerImpl.java segitiga.java segitigasamakai.java segitigasamasisi.java teknisi.java test.java modul6 Test Packages Libraries Test Libraries

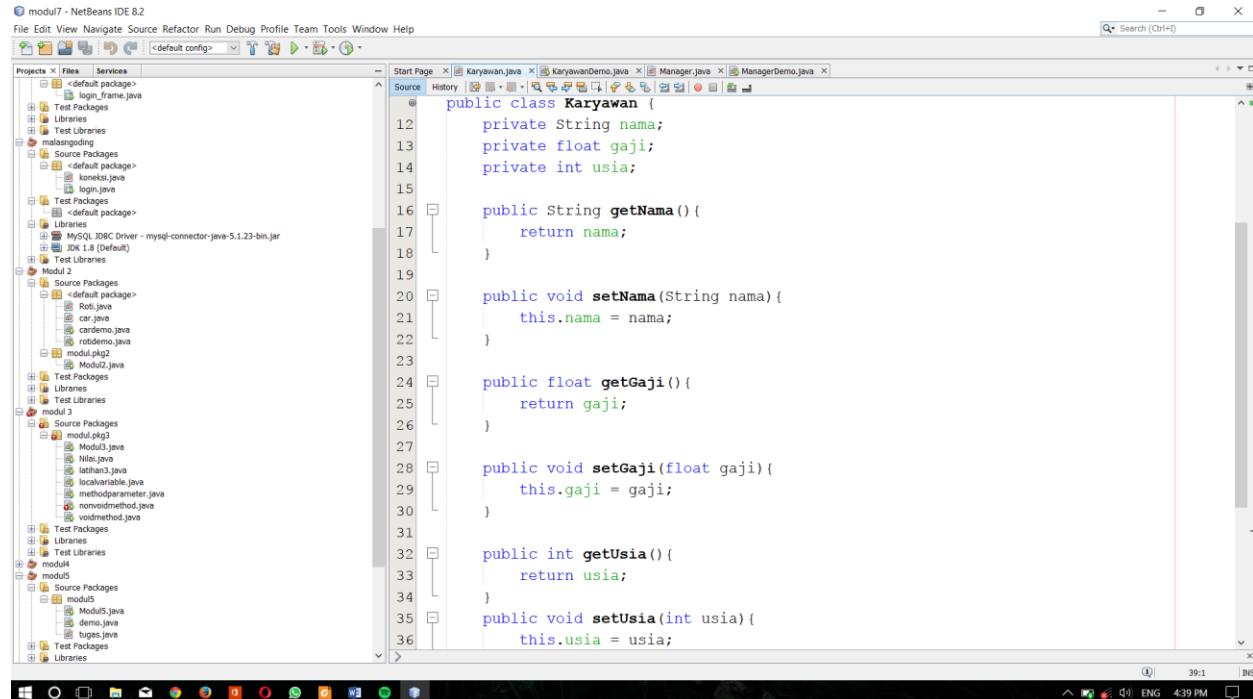
```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author LABRPL-11
10 */
11 public class segitigasamasisi extends segitiga{
12   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

Output 11:47 4:05 PM 11/8/2019

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 7

Class Karyawan



```
modul7 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Search (Ctrl+F) ... default config ...
Projects Files Services Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
<default package>
  login.frame.java
  Test Packages
  Libraries
  Test Libraries
  malsanggding
    Source Packages
      <default package>
        koneksi.java
        login.java
      Test Packages
        Libraries
          MySQL JDBC Driver - mysql-connector-java-5.1.23-bin.jar
          JDK 1.8 (Default)
        Test Libraries
    Modul 2
      Source Packages
        <default package>
          Roti.java
          car.java
          cardemo.java
          rotidemo.java
        modul.prg2
        Modul2.java
      Test Packages
      Libraries
      Test Libraries
    Modul 3
      Source Packages
        modul.prg3
          Modul3.java
          Nila.java
          latihan3.java
          localvariable.java
          methodparameter.java
          nonvoidmethod.java
          voidmethod.java
      Test Packages
      Libraries
      Test Libraries
    Modul 4
    Modul 5
      Source Packages
        modul5
          Modul5.java
          demo.java
          tugas.java
      Test Packages
      Libraries
  Libraries
  Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
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;
    }

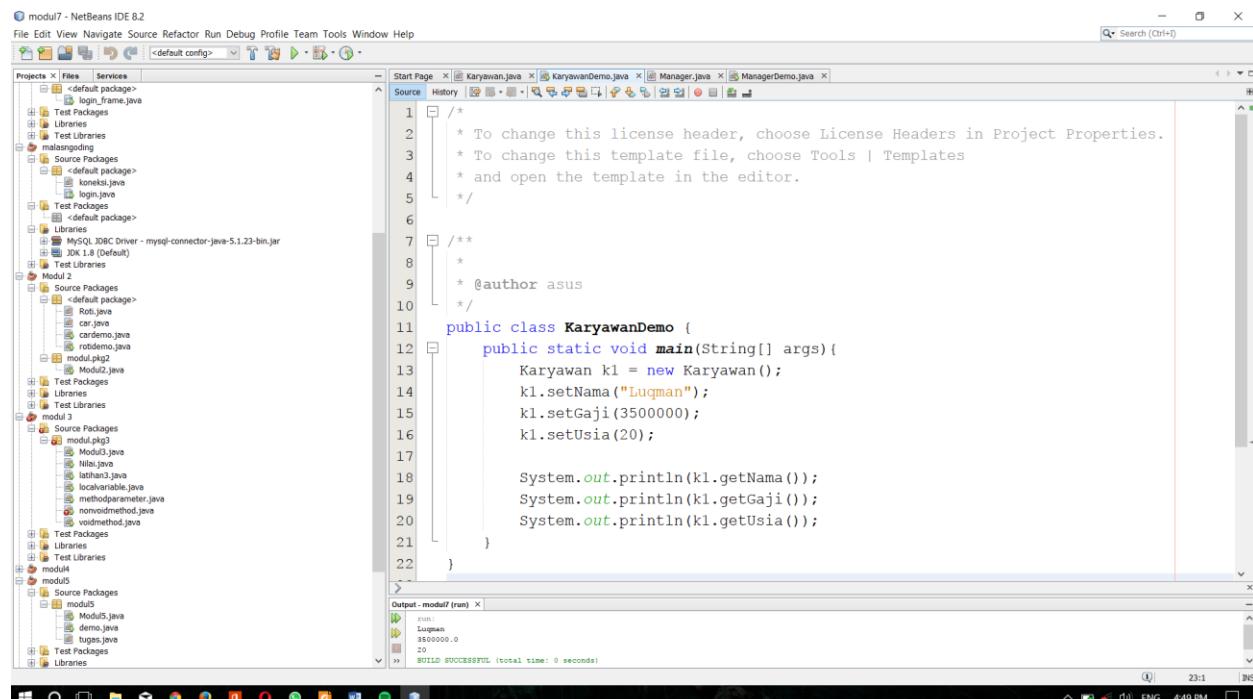
    public float getGaji() {
        return gaji;
    }

    public void setGaji(float gaji) {
        this.gaji = gaji;
    }

    public int getUsia() {
        return usia;
    }

    public void setUsia(int usia) {
        this.usia = usia;
    }
}
```

Class KaryawanDemo



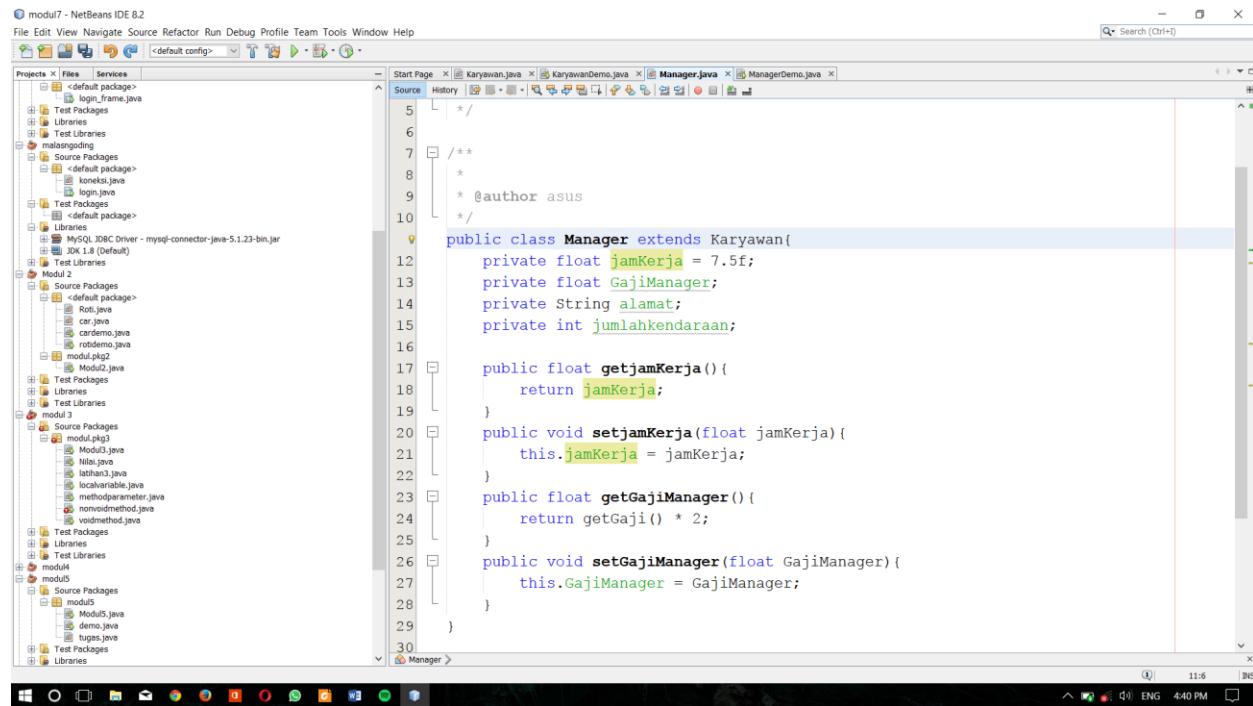
```
modul7 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Source History Search (Ctrl+F) ... default config ...
Projects Files Services Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
<default package>
  login.frame.java
  Test Packages
  Libraries
  Test Libraries
  malsanggding
    Source Packages
      <default package>
        koneksi.java
        login.java
      Test Packages
        Libraries
          MySQL JDBC Driver - mysql-connector-java-5.1.23-bin.jar
          JDK 1.8 (Default)
        Test Libraries
    Modul 2
      Source Packages
        <default package>
          Roti.java
          car.java
          cardemo.java
          rotidemo.java
        modul.prg2
        Modul2.java
      Test Packages
      Libraries
      Test Libraries
    Modul 3
      Source Packages
        modul.prg3
          Modul3.java
          Nila.java
          latihan3.java
          localvariable.java
          methodparameter.java
          nonvoidmethod.java
          voidmethod.java
      Test Packages
      Libraries
      Test Libraries
    Modul 4
    Modul 5
      Source Packages
        modul5
          Modul5.java
          demo.java
          tugas.java
      Test Packages
      Libraries
  Libraries
  Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
/*
 * 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 KaryawanDemo {
    public static void main(String[] args){
        Karyawan kl = new Karyawan();
        kl.setNama("Lugman");
        kl.setGaji(3500000);
        kl.setUsia(20);

        System.out.println(kl.getNama());
        System.out.println(kl.getGaji());
        System.out.println(kl.getUsia());
    }
}

Output - modul7 [run] ...
run
Lugman
3500000.0
20
BUILD SUCCESSFUL (total time: 0 seconds)
```

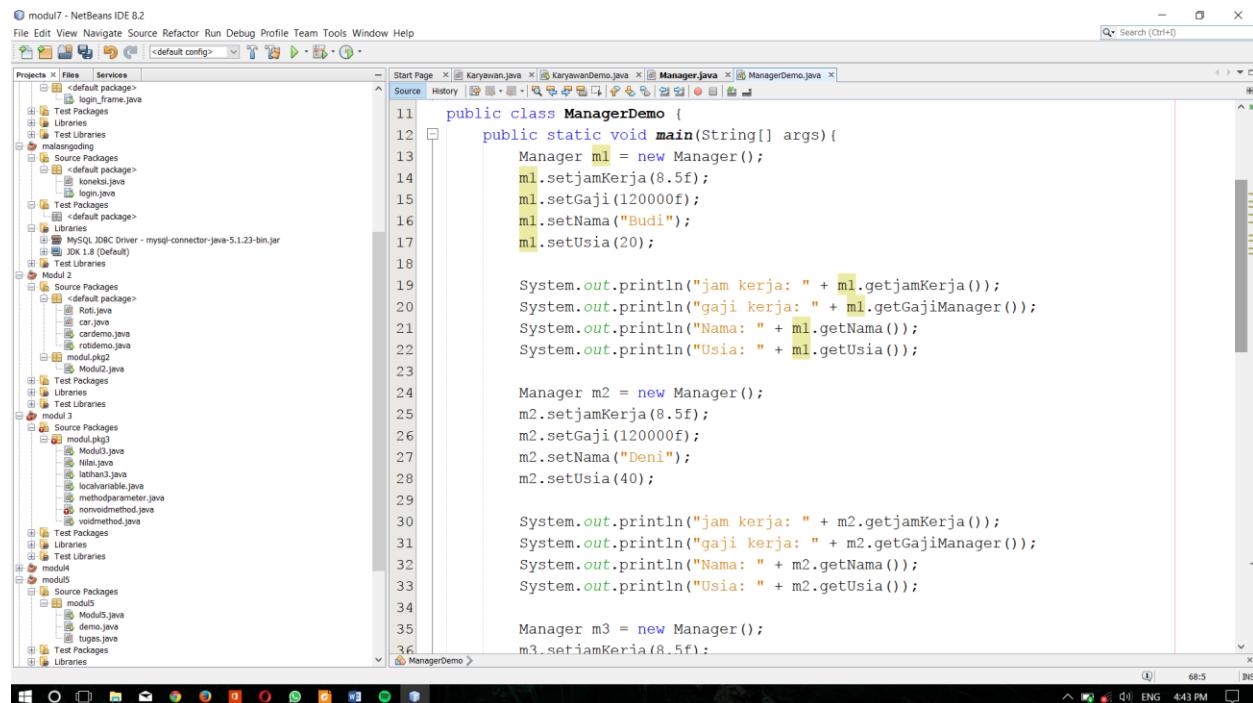
Class Manager



```
modul7 - NetBeans IDE 8.2
File Edit View Navigator Source Refactor Run Debug Profile Team Tools Window Help
Projects Files Services
  malangding
    Source Packages
      <default package>
        login.frame.java
      Test Packages
      Libraries
      Test Libraries
    malangding
      Source Packages
        <default package>
          koneksi.java
        Test Packages
        Libraries
        MySQL JDBC Driver - mysql-connector-java-5.1.23-bin.jar
        JDK 1.8 (Default)
        Test Libraries
      Modul 2
      Source Packages
        <default package>
          Roti.java
          cer.java
          rotidemo.java
        modul.prg2
        Modul2.java
        Test Packages
        Libraries
        Test Libraries
      Modul 3
      Source Packages
        modul.prg3
        Modul3.java
        Nila.java
        latihan3.java
        localvariable.java
        methodparameter.java
        nomethodmethod.java
        voidmethod.java
        Test Packages
        Libraries
        Test Libraries
      modul4
      modul5
      Source Packages
        modul5
        Modul5.java
        demo.java
        tuges.java
        Test Packages
        Libraries
      modul6
Source
Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
5  /*
6   *
7   */
8   /*
9   * @author asus
10  */
11 public class Manager extends Karyawan{
12     private float jamKerja = 7.5f;
13     private float GajiManager;
14     private String alamat;
15     private int jumlahkendaraan;
16
17     public float getjamKerja(){
18         return jamKerja;
19     }
20     public void setjamKerja(float jamKerja){
21         this.jamKerja = jamKerja;
22     }
23     public float getGajiManager(){
24         return getGaji() * 2;
25     }
26     public void setGajiManager(float GajiManager){
27         this.GajiManager = GajiManager;
28     }
29 }
30 Manager >
```

Latihan

1. Membuat fungsi main dengan 5 objek



```
modul7 - NetBeans IDE 8.2
File Edit View Navigator Source Refactor Run Debug Profile Team Tools Window Help
Projects Files Services
  malangding
    Source Packages
      <default package>
        login.frame.java
      Test Packages
      Libraries
      Test Libraries
    malangding
      Source Packages
        <default package>
          koneksi.java
        Test Packages
        Libraries
        MySQL JDBC Driver - mysql-connector-java-5.1.23-bin.jar
        JDK 1.8 (Default)
        Test Libraries
      Modul 2
      Source Packages
        <default package>
          Roti.java
          cer.java
          rotidemo.java
        modul.prg2
        Modul2.java
        Test Packages
        Libraries
        Test Libraries
      Modul 3
      Source Packages
        modul.prg3
        Modul3.java
        Nila.java
        latihan3.java
        localvariable.java
        methodparameter.java
        nomethodmethod.java
        voidmethod.java
        Test Packages
        Libraries
        Test Libraries
      modul4
      modul5
      Source Packages
        modul5
        Modul5.java
        demo.java
        tuges.java
        Test Packages
        Libraries
      modul6
Source
Start Page Karyawan.java KaryawanDemo.java Manager.java ManagerDemo.java
11 public class ManagerDemo {
12     public static void main(String[] args){
13         Manager m1 = new Manager();
14         m1.setjamKerja(8.5f);
15         m1.setGaji(120000f);
16         m1.setNama("Budi");
17         m1.setUsia(20);
18
19         System.out.println("jam kerja: " + m1.getjamKerja());
20         System.out.println("gaji kerja: " + m1.getGajiManager());
21         System.out.println("Nama: " + m1.getNama());
22         System.out.println("Usia: " + m1.getUsia());
23
24         Manager m2 = new Manager();
25         m2.setjamKerja(8.5f);
26         m2.setGaji(120000f);
27         m2.setNama("Deni");
28         m2.setUsia(40);
29
30         System.out.println("jam kerja: " + m2.getjamKerja());
31         System.out.println("gaji kerja: " + m2.getGajiManager());
32         System.out.println("Nama: " + m2.getNama());
33         System.out.println("Usia: " + m2.getUsia());
34
35         Manager m3 = new Manager();
36         m3.setjamKerja(8.5f);
```

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

- Title Bar:** modul07 - NetBeans IDE 8.2
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help
- Toolbar:** Includes icons for New, Open, Save, Cut, Copy, Paste, Find, and others.
- Search Bar:** Search (Ctrl+F)
- Project Explorer (Left):** Shows the project structure with modules: modul07, modul2, modul3, and modul5. Each module contains Source Packages, Test Packages, Libraries, and Test Libraries.
- Code Editor (Right):** Displays the Manager.java file content. The code defines a Manager class with methods setjamKerja, setGaji, setNama, and setUsia, and corresponding get methods. It also includes static methods main and print statements.

```
35 Manager m3 = new Manager();
36 m3.setjamKerja(8.5f);
37 m3.setGaji(120000f);
38 m3.setNama("rudi");
39 m3.setUsia(34);

41 System.out.println("jam kerja: " + m3.getjamKerja());
42 System.out.println("gaji kerja: " + m3.getGajiManager());
43 System.out.println("Nama: " + m3.getNama());
44 System.out.println("Usia: " + m3.getUsia());

46 Manager m4 = new Manager();
47 m4.setjamKerja(8.5f);
48 m4.setGaji(120000f);
49 m4.setNama("rendi");
50 m4.setUsia(32);

52 System.out.println("jam kerja: " + m4.getjamKerja());
53 System.out.println("gaji kerja: " + m4.getGajiManager());
54 System.out.println("Nama: " + m4.getNama());
55 System.out.println("Usia: " + m4.getUsia());

57 Manager m5 = new Manager();
58 m5.setjamKerja(8.5f);
59 m5.setGaji(120000f);
60 m5.setNama("sendi");
```

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

- Title Bar:** modul7 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Includes icons for New Project, Open Project, Save, Undo, Redo, Cut, Copy, Paste, Find, Replace, and others.
- Search Bar:** Search (Ctrl+F)
- Project Explorer:** Shows the project structure with packages like default package, modul1, modul2, modul3, modul4, and modul5, along with their source files and test files.
- Code Editor:** The current file is ManagerDemo.java, containing the following Java code:

```
Start Page x Karyawan.java x KaryawanDemo.java x Manager.java x ManagerDemo.java x

54     System.out.println("Nama: " + m4.getNama());
55     System.out.println("Usia: " + m4.getUsia());

56
57     Manager m5 = new Manager();
58     m5.setjamKerja(8.5f);
59     m5.setGaji(12000f);
60     m5.setNama("sendi");
61     m5.setUsia(49);

62
63     System.out.println("jam kerja: " + m5.getjamKerja());
64     System.out.println("gaji kerja: " + m5.getGajiManager());
65     System.out.println("Nama: " + m5.getNama());
66     System.out.println("Usia: " + m5.getUsia());

67 }

68
69 }
```
- Status Bar:** Shows the line number (68-69), character position (68-5), and the message "ENG 4:43 PM".

```

54 System.out.println("Nama: " + m4.getNama());
55 System.out.println("Usia: " + m4.getUsia());
56
57 Manager m5 = new Manager();
58 m5.setjamKerja(8.5f);
59 m5.setGaji(120000f);
60 m5.setNama("sendi");
61 m5.setUsia(49);
62
63 System.out.println("jam kerja: " + m5.getjamKerja());
64 System.out.println("gaji kerja: " + m5.getGajiManager());
65 System.out.println("Nama: " + m5.getNama());
66 System.out.println("Usia: " + m5.getUsia());
67

```

2. Memodifikasi setter

```

5 /**
6
7 */
8 *
9 * @author asus
10 */
11
12 public class Manager extends Karyawan{
13     private float jamKerja = 7.5f;
14     private float GajiManager;
15     private String alamat;
16     private int jumlahkendaraan;
17
18     public float getjamKerja(){
19         return jamKerja;
20     }
21
22     public void setjamKerja(float jamKerja){
23         this.jamKerja = jamKerja;
24     }
25
26     public float getGajiManager(){
27         return getGaji() * 2;
28     }
29
30     public void setGajiManager(float GajiManager){
31         this.GajiManager = GajiManager;
32     }
33
34 }

```

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 8

Latihan

The screenshot shows the NetBeans IDE interface with the title "modul8 - NetBeans IDE 8.2". The left sidebar displays a project structure for "modul8" containing packages like "Services", "modul1", "modul2", "modul3", and "modul7". The "modul7" package is expanded, showing source files such as "Karyawana.java", "Manager.java", "ManagerDemo.java", "Pet.java", "Hewan.java", "HewanDemo.java", "Kucing.java", "Kucing.java", "OverloadingCon.java", "ParentCatz.java", "Pet.java", "Sepatu.java", "SepatuDemo.java", "Static.java", "TestPolymorph.java", and "customerdata.java". The main editor window shows the Java code for the "Anjingku" class, which extends the "Pet" class. The code includes an overridden method "perilaku" returning "Menyukai Daging dan Tulang" and a method "mengonggong" printing "Guk...Guk...Guk...". The code is annotated with Javadoc-style comments and annotations like "@author asus". The status bar at the bottom right shows the date and time as "2011-08-10 20:48 PM".

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   *
9   * @author asus
10  */
11 public class Anjingku extends Pet{
12     @Override
13     public String perilaku(){
14         return "Menyukai Daging dan Tulang";
15     }
16     void mengonggong(){
17         System.out.println("Guk...Guk...Guk...");
18     }
19 }
```

modul8 - NetBeans IDE 8.2

```

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

```

modul8 - NetBeans IDE 8.2

```

9 /**
10 * @author asus
11 */
12 public class TestPolymorphism {
13     public static void main(String[] args){
14         Pet pr = new Pet();
15         Kucingku ku = new Kucingku();
16         Anjingku an = new Anjingku();
17         pr.beriNama("TOM");
18         System.out.println(pr.panggilNama());
19         System.out.println(ku.perilaku());
20         ku.mengeong();
21         pr.beriNama("BULL");
22         System.out.println(pr.panggilNama());
23         System.out.println(an.perilaku());
24         an.mengonggong();
25     }
26 }

```

Output - modul8 (run) >

```

menyukai ikan
meeeeooww..meeeeooww
BULL
menyukai Puding dan Tulang
Out..Out..Out...
BUILD SUCCESSFUL (total time: 0 seconds)

```

Tugas

1.

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

- Project Tree:** On the left, under "Proj...", there are several modules: "modul8", "modul5", "modul6", "modul7", and "modul8". Each module contains "Source Packages" and "Test Packages".
- Code Editor:** The main window displays the Java code for the "Hewan" class. The code includes a license header, imports, and a method named "jalan" that prints a message to the console.
- Toolbars and Status Bar:** The top has standard NetBeans toolbars. The bottom status bar shows the current file path as "C:\Users\asus\NetBeansProjects\modul8\src\modul8\Hewan.java", the line number "11", and the column number "11".

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7  /**
8  *
9  * @author asus
10 */
11 public class Hewan {
12     public void jalan(){
13         System.out.println("Hewan bisa jalan");
14     }
15 }
16
```

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

- Title Bar:** modul8 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows multiple projects: modul1, modul2, modul3, modul4, modul5, modul6, modul7, and modul8. modul8 contains several source packages and files like Modulus.java, demo.java, Pet.java, etc.
- Code Editor:** The main window displays the Java code for the Elang class. The code includes annotations for license headers and author information, followed by the class definition and its jalan() method.
- Status Bar:** Shows the current file as Elang > jalan > and other status indicators.

```
1  /*  
2   * To change this license header, choose License Headers in Project Properties.  
3   * To change this template file, choose Tools | Templates  
4   * and open the template in the editor.  
5 */  
6  
7  /**  
8   *  
9   * @author asus  
10 */  
11 public class Elang extends Hewan{  
12     public void jalan(){  
13         System.out.println("jalan dengan gagah");  
14     }  
15 }  
16
```

modul8 - NetBeans IDE 8.2

```

1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   * @author asus
9   */
10 public class Hewandemo {
11     public static void main(String[] args) {
12         Hewan h1 = new Hewan();
13         Elang e1 = new Elang();
14         e1.jalan();
15         h1.jalan();
16     }
17 }

```

Output - modul8 (run) >

```

Jalan dengan gagah
Hewan bisa Jalan
BUILD SUCCESSFUL (total time: 0 seconds)

```

2. Membuat class customer data

modul8 - NetBeans IDE 8.2

```

6 /**
7 *
8 * @author asus
9 */
10 public class customerdata {
11     String nama;
12     String alamat;
13     int tglahir;
14     String pekerjaan;
15     int gaji;
16
17     public void overloading(String nama, String alamat,
18                             int tglahir, String pekerjaan, int gaji){
19         this.nama = nama;
20         this.alamat = alamat;
21         this.tglahir = tglahir;
22         this.pekerjaan = pekerjaan;
23         this.gaji = gaji;
24         System.out.println("nama: " + nama + "\nalamat: " + alamat + "\ntglahir: " + tglahir +
25                           "\npekerjaan: " + pekerjaan + "\ngaji: " + gaji);
26     }
27 }
28

```

3. Membuat class main()

modul8 - NetBeans IDE 8.2

```

public class customerdatademo {
    public static void main(String[] args) {
        customerdata ov = new customerdata();
        ov.overloading("budi", "sukoharjo", 12, "dokter", 120000);

        customerdata co = new customerdata();
        co.overloading("veni", "sukoharjo", 14, "guru", 120000);

        customerdata op = new customerdata();
        op.overloading("vara", "sukoharjo", 13, "pns", 1230000);

        customerdata po = new customerdata();
        po.overloading("dias", "sukoharjo", 22, "pegawai", 120000);

        customerdata eo = new customerdata();
        eo.overloading("deni", "sukoharjo", 2, "dokter", 120000);

        customerdata er = new customerdata();
        er.overloading("reni", "sukoharjo", 12, "dokter", 120000);

        customerdata ple = new customerdata();
        ple.overloading("rudi", "sukoharjo", 14, "akuntan", 120000);

        customerdata ove = new customerdata();
        ove.overloading("deri", "sukoharjo", 21, "dokter", 120000);
    }
}

```

modul8 - NetBeans IDE 8.2

```

customerdata op = new customerdata();
op.overloading("vara", "sukoharjo", 13, "pns", 1230000);

customerdata po = new customerdata();
po.overloading("dias", "sukoharjo", 22, "pegawai", 120000);

customerdata eo = new customerdata();
eo.overloading("deni", "sukoharjo", 2, "dokter", 120000);

customerdata er = new customerdata();
er.overloading("reni", "sukoharjo", 12, "dokter", 120000);

customerdata ple = new customerdata();
ple.overloading("rudi", "sukoharjo", 14, "akuntan", 120000);

customerdata ove = new customerdata();
ove.overloading("deri", "sukoharjo", 21, "dokter", 120000);

customerdata ovr = new customerdata();
ovr.overloading("sendi", "sukoharjo", 24, "traverel", 120000);

customerdata ovq = new customerdata();
ovq.overloading("rendi", "sukoharjo", 25, "pedagang", 120000);
}

```

Keluarannya :

modul8 - NetBeans IDE 8.2

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

Source History <default config> Search (Ctrl+F)

Output - modul8 (run) :

```
budi
sukoharjo
tgllahir: 12
gaji: 120000
nama: venti
alamat: sukoharjo
tgllahir: 14
gaji: 120000
pekerjaan: guru
tgllahir: 13
gaji: 120000
pekerjaan: ibu
alamat: sukoharjo
tgllahir: 13
gaji: 120000
pekerjaan: pemawai
tgllahir: 12
gaji: 120000
pekerjaan: ibu
alamat: sukoharjo
tgllahir: 2
gaji: 120000
pekerjaan: ibu
alamat: sukoharjo
tgllahir: 12
gaji: 120000
pekerjaan: ibu
tgllahir: 12
gaji: 120000
pekerjaan: ibu
alamat: sukoharjo
tgllahir: 24
gaji: 120000
pekerjaan: traveral
tgllahir: 25
gaji: 120000
pekerjaan: pedagang
gaji: 120000

```

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

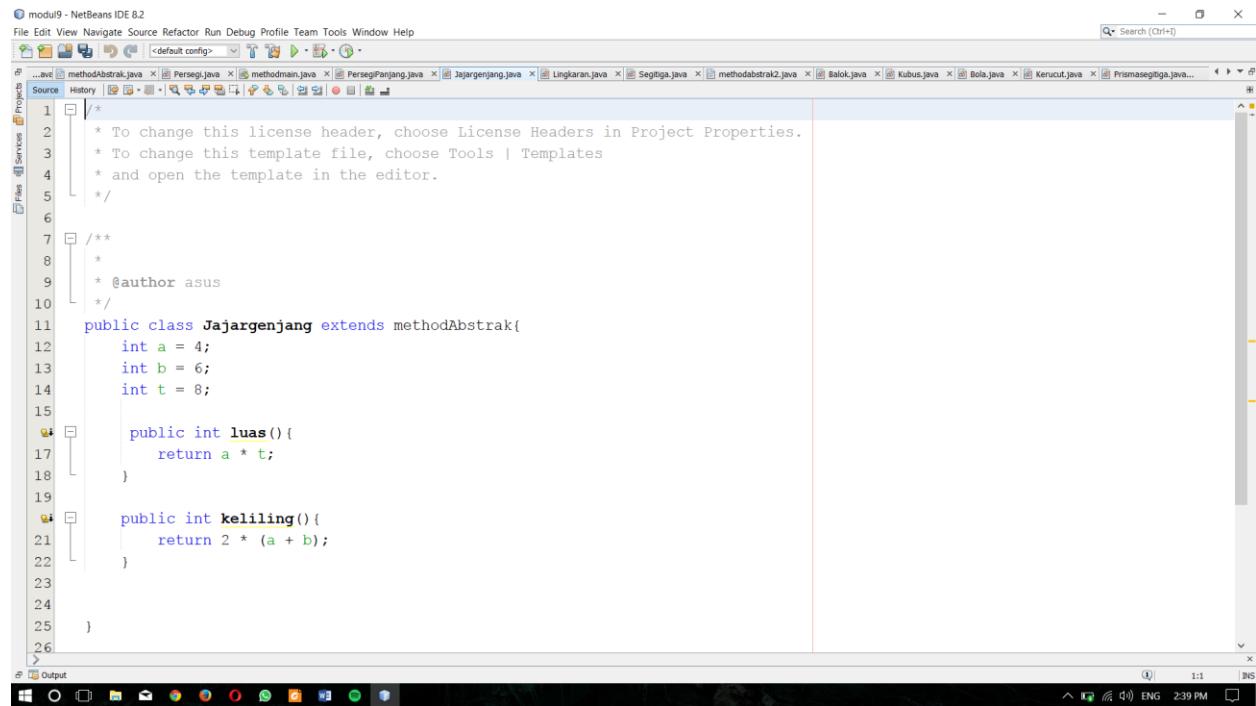
Modul 9

Latihan

Class Persegi Panjang

```
modul9 - NetBeans IDE 8.2
File Edit View Navigator Source Refactor Run Debug Profile Team Tools Window Help
default config...
Project Services Files
Search (Ctrl+F)
...avi methodAbstrak.java Persegipanjang.java methodmain.java Persegipanjang.java Jajargenjang.java Lingkaran.java Segitiga.java methodabstrak2.java Balok.java Kubus.java Bola.java Kerucut.java Prismasegitiga.java...
Source History ...
1 /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5 */
6
7 /**
8  *
9  * @author asus
10 */
11 public class Persegipanjang extends methodAbstrak{
12     int panjang = 5;
13     int lebar = 9;
14
15     /**
16      * @return panjang * lebar;
17     */
18
19     /**
20      * @return 2 * (panjang + lebar);
21     */
22 }
23
24 
```

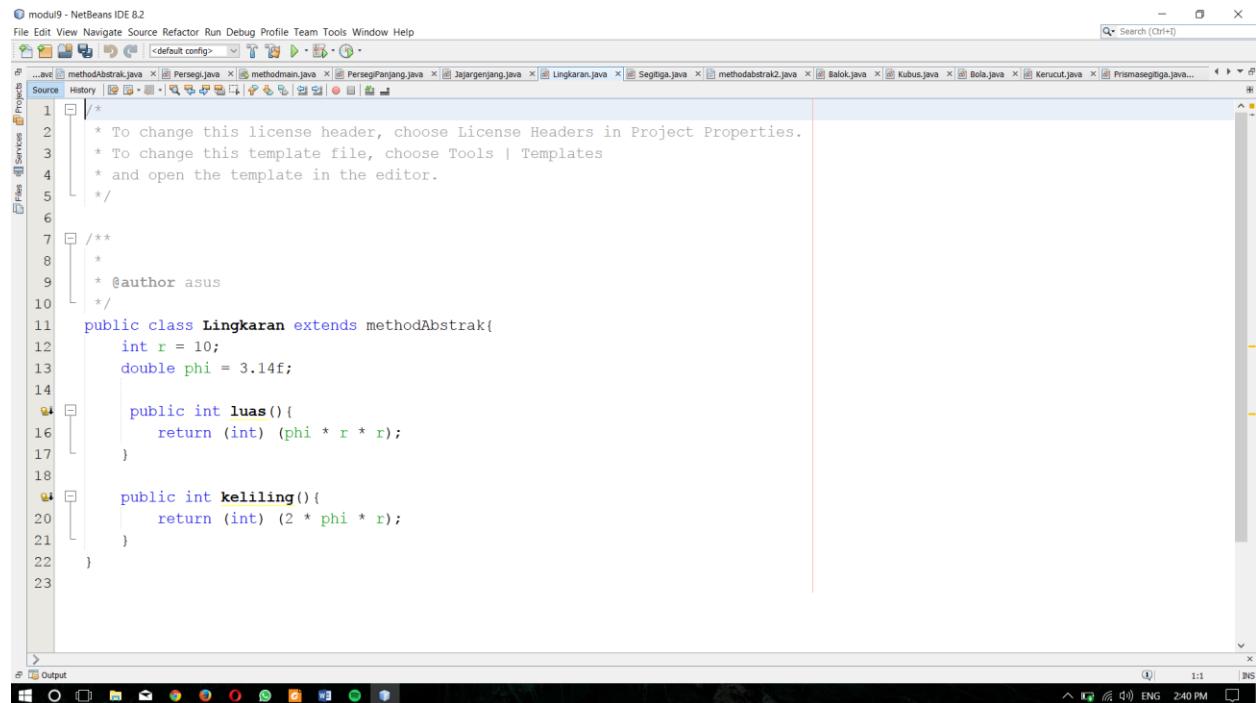
Class Jajar Genjang



The screenshot shows the NetBeans IDE 8.2 interface with the title bar "modul9 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigator, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for New Project, Open Project, Save, Cut, Copy, Paste, Find, Replace, and others. The source editor window 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 asus
10 */
11 public class Jajargenjang extends methodAbstrak{
12     int a = 4;
13     int b = 6;
14     int t = 8;
15
16     public int luas(){
17         return a * t;
18     }
19
20     public int keliling(){
21         return 2 * (a + b);
22     }
23
24 }
25
26 }
```

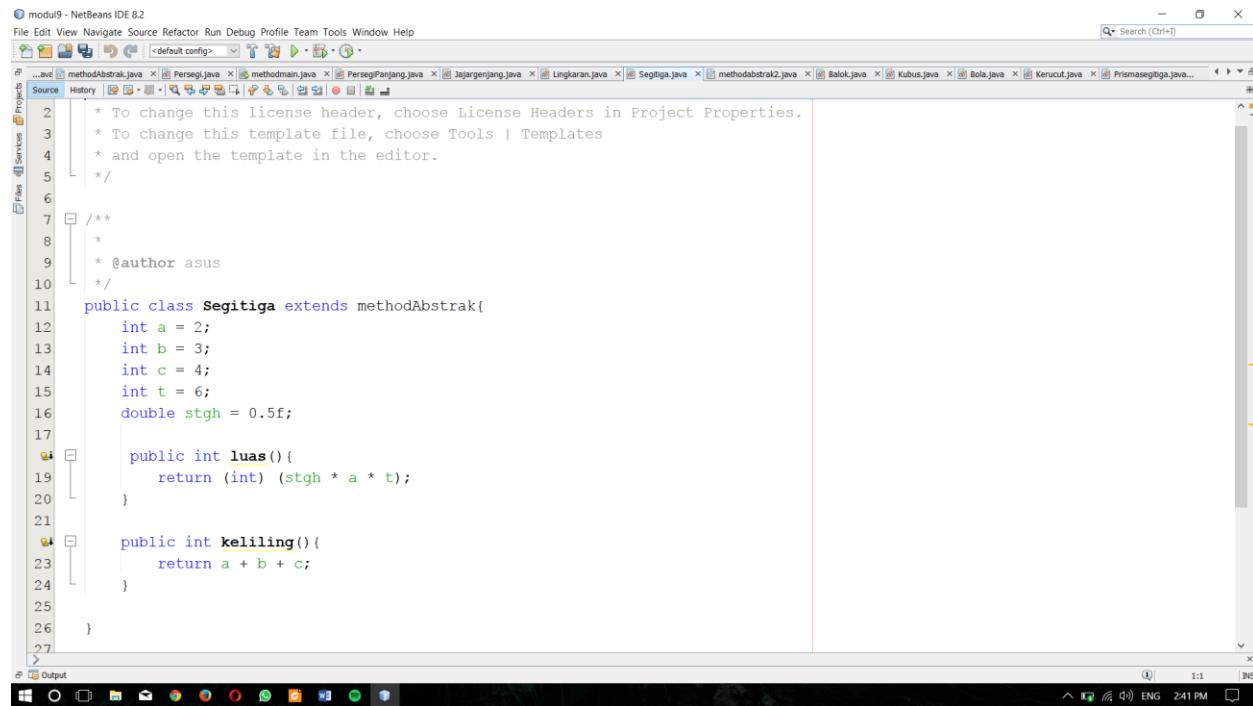
Class Lingkaran



The screenshot shows the NetBeans IDE 8.2 interface with the title bar "modul9 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigator, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for New Project, Open Project, Save, Cut, Copy, Paste, Find, Replace, and others. The source editor window 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 asus
10 */
11 public class Lingkaran extends methodAbstrak{
12     int r = 10;
13     double phi = 3.14f;
14
15     public int luas(){
16         return (int) (phi * r * r);
17     }
18
19     public int keliling(){
20         return (int) (2 * phi * r);
21     }
22 }
23
```

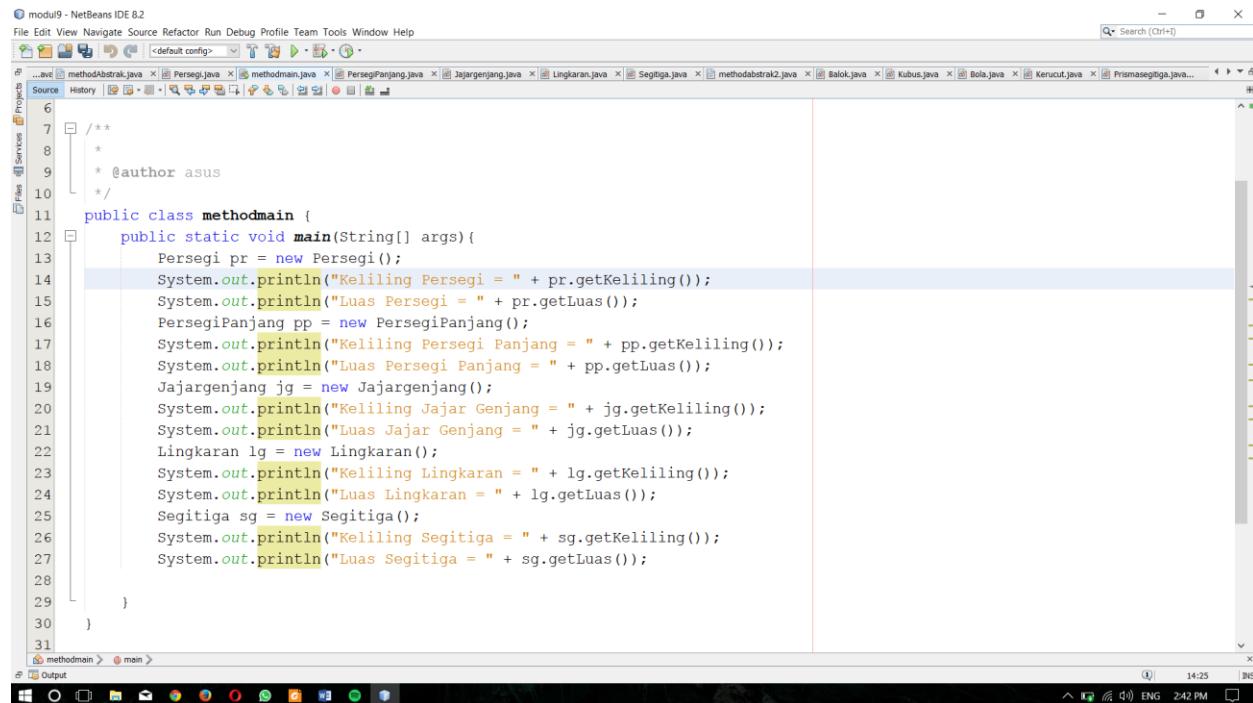
Class Segitiga



The screenshot shows the NetBeans IDE interface with the title "modul9 - NetBeans IDE 8.2". The main window displays the "Segitiga.java" source code. The code defines a class "Segitiga" that extends "methodAbstrak". It contains two methods: "luas()" which returns the area of the triangle (stgh * a * t), and "keliling()" which returns the perimeter (a + b + c). The code is annotated with JavaDoc-style comments and includes imports for System.out.println.

```
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author asus
10 */
11 public class Segitiga extends methodAbstrak{
12     int a = 2;
13     int b = 3;
14     int c = 4;
15     int t = 6;
16     double stgh = 0.5f;
17
18     public int luas(){
19         return (int) (stgh * a * t);
20     }
21
22     public int keliling(){
23         return a + b + c;
24     }
25
26 }
27
```

Class Main



The screenshot shows the NetBeans IDE interface with the title "modul9 - NetBeans IDE 8.2". The main window displays the "methodmain.java" source code. This is a main program that creates various geometric objects and prints their perimeters and areas. It uses the "Persegi", "PersegiPanjang", "Jajargenjang", "Lingkaran", "Segitiga", and "Kerucut" classes, and prints the results using System.out.println.

```
6 /**
7 *
8 * @author asus
9 */
10
11 public class methodmain {
12     public static void main(String[] args){
13         Persegi pr = new Persegi();
14         System.out.println("Keliling Persegi = " + pr.getKeliling());
15         System.out.println("Luas Persegi = " + pr.getLuas());
16         PersegiPanjang pp = new PersegiPanjang();
17         System.out.println("Keliling Persegi Panjang = " + pp.getKeliling());
18         System.out.println("Luas Persegi Panjang = " + pp.getLuas());
19         Jajargenjang jg = new Jajargenjang();
20         System.out.println("Keliling Jajar Genjang = " + jg.getKeliling());
21         System.out.println("Luas Jajar Genjang = " + jg.getLuas());
22         Lingkaran lg = new Lingkaran();
23         System.out.println("Keliling Lingkaran = " + lg.getKeliling());
24         System.out.println("Luas Lingkaran = " + lg.getLuas());
25         Segitiga sg = new Segitiga();
26         System.out.println("Keliling Segitiga = " + sg.getKeliling());
27         System.out.println("Luas Segitiga = " + sg.getLuas());
28
29     }
30 }
31
```

Hasil :

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The main window displays a Java code editor with the following content:

```
6  /*
7   * 
8   * @author asus
9   */
10  public class methodmain {
11      public static void main(String[] args){
12          Persegi pr = new Persegi();
13      }
14  }
```

In the Output panel, the results of the run are shown:

```
run
Kelling Persegi = 28
Luas Persegi = 49
Keling Persegi Panjang = 20
Luas Persegi Panjang = 45
Keling Jajar Genjang = 20
Luas Jajar Genjang = 32
Keling Lingkaran = 42
Luas Lingkaran = 314
Keling Segitiga = 9
Luas Segitiga = 4
BUILD SUCCESSFUL (total time: 0 seconds)
```

The system tray at the bottom shows icons for battery, signal, and network.

Tugas !!!

Class abstract yang memiliki method abstract

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The main window displays a Java code editor 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   * 
9   * @author asus
10  */
11  public abstract class methodabstrak2 {
12      public abstract int volume();
13      public abstract int luaspermukaan();
14
15      public int getvolume(){
16          return volume();
17      }
18
19      public int getluaspermukaan(){
20          return luaspermukaan();
21      }
22  }
```

The code editor highlights the method names "volume()" and "luaspermukaan()". The system tray at the bottom shows icons for battery, signal, and network.

Class Balok

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The main window displays the source code for the class "Balok". The code defines a class that extends "methodabstrak2" and contains methods for calculating volume and surface area.

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6  
7  /**  
8  *  
9  * @author asus  
*/  
10 public class Balok extends methodabstrak2{  
11     int p = 5;  
12     int l = 4;  
13     int t = 3;  
14  
15     public int volume(){  
16         return p * l * t;  
17     }  
18  
19     public int luaspermukaan(){  
20         return 2 * (p * t + p * l + t * l);  
21     }  
22 }  
23  
24
```

Class Kubus

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The main window displays the source code for the class "Kubus". The code defines a class that extends "methodabstrak2" and contains methods for calculating volume and surface area.

```
1 /*  
2  * To change this license header, choose License Headers in Project Properties.  
3  * To change this template file, choose Tools | Templates  
4  * and open the template in the editor.  
5 */  
6  
7  /**  
8  *  
9  * @author asus  
*/  
10 public class Kubus extends methodabstrak2{  
11     int s = 7;  
12  
13     public int volume(){  
14         return s * s * s;  
15     }  
16  
17     public int luaspermukaan(){  
18         return 6 * s * s;  
19     }  
20 }  
21  
22
```

Class Bola

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - 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, Run, Stop, and others. The left sidebar shows the Projects, Files, and Services tabs, with "Source" selected. The main editor area 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
7  /**
8   *
9   * @author asus
10 */
11 public class Bola extends methodabstrak{
12     int r = 100;
13     double phi = 3.14f;
14     double empatpertiga = 1.3333f;
15
16     public int volume(){
17         return (int) (empatpertiga * phi * r * r * r);
18     }
19
20     public int luaspermukaan(){
21         return (int) (4 * phi * r * r);
22     }
23
24 }
25
```

Class Kerucut

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - 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, Run, Stop, and others. The left sidebar shows the Projects, Files, and Services tabs, with "Source" selected. The main editor area 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
7  /**
8   *
9   * @author asus
10 */
11 public class Kerucut extends methodabstrak2{
12     int r = 10;
13     int t = 8;
14     int s = 6;
15     double phi = 3.14f;
16     double sepertiga = 0.333333f;
17
18     public int luaspermukaan(){
19         return (int) (phi * r * (r + s));
20     }
21
22     public int volume(){
23         return (int) (sepertiga * phi * r * r * t);
24     }
25 }
```

Class Prisma Segitiga

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigator, 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 source editor window displays the following Java code:

```
 2 * To change this license header, choose License Headers in Project Properties.
 3 * To change this template file, choose Tools | Templates
 4 * and open the template in the editor.
 5 */
 6
 7 /**
 8 *
 9 * @author asus
10 */
11 public class Prismasegitiga extends methodabstrak2{
12     int a = 10;
13     int ts = 12;
14     double stngh = 0.5f;
15     int tp = 20;
16     int luas alas = 60;
17     int luas bidang tegak = 200;
18
19     public int volume(){
20         return (int) ((stngh * a * ts) * tp);
21     }
22
23     public int luaspermukaan(){
24         return (int) (2 * (stngh * a * ts) + (3 * (tp * a)));
25     }
26 }
```

The code implements a class named `Prismasegitiga` that extends `methodabstrak2`. It contains two methods: `volume()` and `luaspermukaan()`. The `luaspermukaan()` method is highlighted with a light blue background.

Class Main

The screenshot shows the NetBeans IDE interface with the title bar "modul9 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigator, 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 source editor window displays the following Java code:

```
 6 /**
 7 *
 8 * @author asus
 9 */
10
11 public class bangunruangdemo {
12     public static void main(String[] args){
13         Balok bl = new Balok();
14         Kubus kb = new Kubus();
15         Bola bla = new Bola();
16         Kerucut kr = new Kerucut();
17         Prismasegitiga psg = new Prismasegitiga();
18         System.out.println("Volume Balok = " + bl.getvolume());
19         System.out.println("Luas Permukaan Balok = " + bl.getluaspermukaan());
20         System.out.println("Volume Kubus = " + kb.getvolume());
21         System.out.println("Luas Permukaan Kubus = " + kb.getluaspermukaan());
22         System.out.println("Volume Bola = " + bla.getvolume());
23         System.out.println("Luas Permukaan Bola = " + bla.getluaspermukaan());
24         System.out.println("Volume Kerucut = " + kr.getvolume());
25         System.out.println("Luas Permukaan Kerucut = " + kr.getluaspermukaan());
26         System.out.println("Volume Prismasegitiga = " + psg.getvolume());
27         System.out.println("Luas Permukaan Prismasegitiga = " + psg.getluaspermukaan());
28     }
29 }
```

The code implements a class named `bangunruangdemo` with a `main` method. This method creates instances of `Balok`, `Kubus`, `Bola`, `Kerucut`, and `Prismasegitiga` and prints their volume and surface area using `System.out.println`.

Hasil :

The screenshot shows the NetBeans IDE 8.2 interface. The top menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, and Help. The title bar says "modul9 - NetBeans IDE 8.2". The main window displays a Java source code editor with the following content:

```
6
7  /*
8   *      *
9   * @author asus
10  */
11 public class bangunruangdemo {
12     public static void main(String[] args){
13         Balok bl = new Balok();
```

The Output window below shows the results of a build and run:

```
Output: modul9 [run]
run
Volume Balok = 60
Luas Permukaan Balok = 94
Volume Kubus = 216
Luas Permukaan Kubus = 254
Volume Bola = 4199642
Luas Permukaan Bola = 128400
Volume Prisma Segitiga = 1000
Luas Permukaan Prisma Segitiga = 600
Volume Kerucut = 802
Volume Prisma Segitiga = 1200
Luas Permukaan Prisma Segitiga = 720
BUILD SUCCESSFUL (total time: 0 seconds)
```

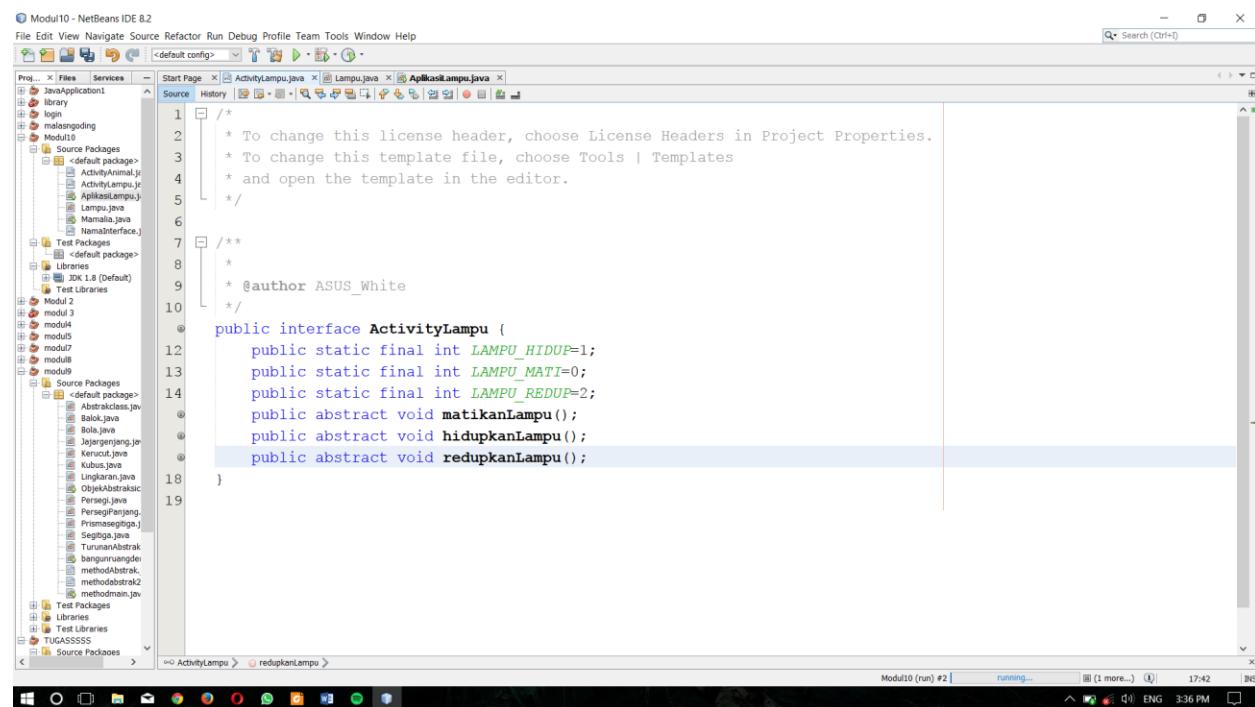
The system tray at the bottom shows standard icons for battery, signal, and volume, along with the text "ENG 2:48 PM".

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 10

Tugas

Class activityLampu



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

- Title Bar:** Modul10 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows the project structure with packages like JavaApplication1, Modul1, Modul2, Modul3, Modul4, Modul5, Modul6, Modul7, Modul8, and Modul9, along with their source files.
- Source Editor:** The current file is ActivityLampu.java, which contains the following code:

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7  /**
8   *
9   * @author ASUS_White
10 */
11 public interface ActivityLampu {
12     public static final int LAMPU_HIDUP=1;
13     public static final int LAMPU_MATI=0;
14     public static final int LAMPU_REDUP=2;
15     public abstract void matikanLampu();
16     public abstract void hidupkanLampu();
17     public abstract void redupkanLampu();
18 }
19 }
```
- Bottom Status Bar:** Shows the current run configuration (Modul10 (run) #2), status (running...), time (17:42), and other system information.

Class Lampu

Modul10 - NetBeans IDE 8.2

```
10  /*
11   * public class Lampu implements ActivityLampu {
12   *     public int statusLampu;
13   *
14   *     @Override
15   *     public void matikanLampu() {
16   *         if(statusLampu==0) {
17   *             System.out.println("Lampu sudah dalam kondisi mati");
18   *         }else if(statusLampu==1) {
19   *             statusLampu=-1;
20   *             System.out.println("Lampu sudah dimatikan");
21   *         }
22   *     }
23   *
24   *     @Override
25   *     public void hidupkanLampu() {
26   *         if(statusLampu==1) {
27   *             System.out.println("Lampu sudah dinyalakan\n***");
28   *         }else{
29   *             statusLampu=+1;
30   *             System.out.println("Lampu sudah dalam kondisi menyala");
31   *         }
32   *     }
33   *
34   *     @Override
35   *     public void redupkanLampu() {
36   *         if(statusLampu==2){
37   *             System.out.println("Lampu sudah direduangkan\n***");
38   *         }
39   *     }
40   */
41 }
```

Modul10 - NetBeans IDE 8.2

```
10  /*
11   * public class Lampu implements ActivityLampu {
12   *     public int statusLampu;
13   *
14   *     @Override
15   *     public void hidupkanLampu() {
16   *         if(statusLampu==1) {
17   *             System.out.println("Lampu sudah dinyalakan\n***");
18   *         }else{
19   *             statusLampu=+1;
20   *             System.out.println("Lampu sudah dalam kondisi menyala");
21   *         }
22   *     }
23   *
24   *     @Override
25   *     public void redupkanLampu() {
26   *         if(statusLampu==2){
27   *             System.out.println("Lampu sudah direduangkan\n***");
28   *         }else{
29   *             statusLampu=+2;
30   *             System.out.println("Lampu sudah dalam kondisi redup");
31   *         }
32   *     }
33   *
34   *     public int setSaklar(int saklar){
35   *         return statusLampu = saklar;
36   *     }
37   */
38 }
```

Class aplikasi lampu

The screenshot shows the NetBeans IDE interface with the title "Modul10 - NetBeans IDE 8.2". The left pane displays the project structure under "Java Application1". The right pane shows the code editor with the file "AplikasiLampu.java" open. The code defines a class "AplikasiLampu" with a main method that creates a "Lampu" object and uses a scanner to control its status based on user input (0 for on, 1 for off).

```
8  /**
9  *
10 * @author ASUS_White
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 = lampu.setSaklar(0);
17         System.out.println("Status Lampu = "+lampu.getStatusLampu+"\nketikkan");
18         System.out.println("1 untuk menyalaikan lampu\n0 untuk mematikan lampu\n2 untuk meredupkan lampu");
19
20         int a = sc.nextInt();
21         if(lampu.setSaklar(a)==0){
22             lampu.matiLampu();
23         }else if(lampu.setSaklar(a)==1){
24             lampu.hidupkanLampu();
25         }else{
26             lampu.redupkanLampu();
27         }
28
29     }
30
31 }
32 }
```

Hasil :

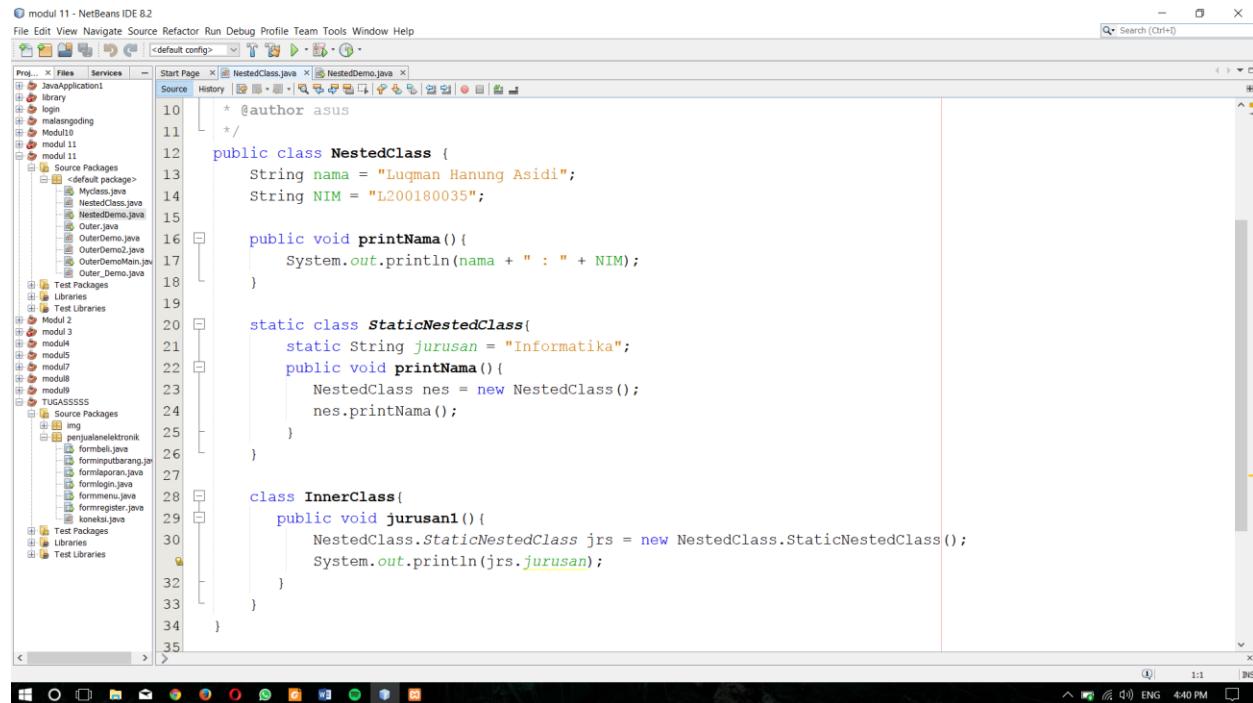
The screenshot shows the NetBeans IDE interface with the title "Modul10 - NetBeans IDE 8.2". The left pane displays the project structure under "Java Application1". The right pane shows the code editor with the file "AplikasiLampu.java" open. The "Output" tab is selected, showing the console output of the application's execution. The output shows the application prompting for input, receiving '0', and then printing the status as 'Lampu = 0 ketikan'. It also shows the application exiting with a build message.

```
status Lampu = 0
ketikan
1 untuk menyalaikan lampu
0 untuk mematikan lampu
2 untuk meredupkan lampu
Lampu sudah diredukan
**
BUILD SUCCESSFUL (total time: 2 seconds)
```

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

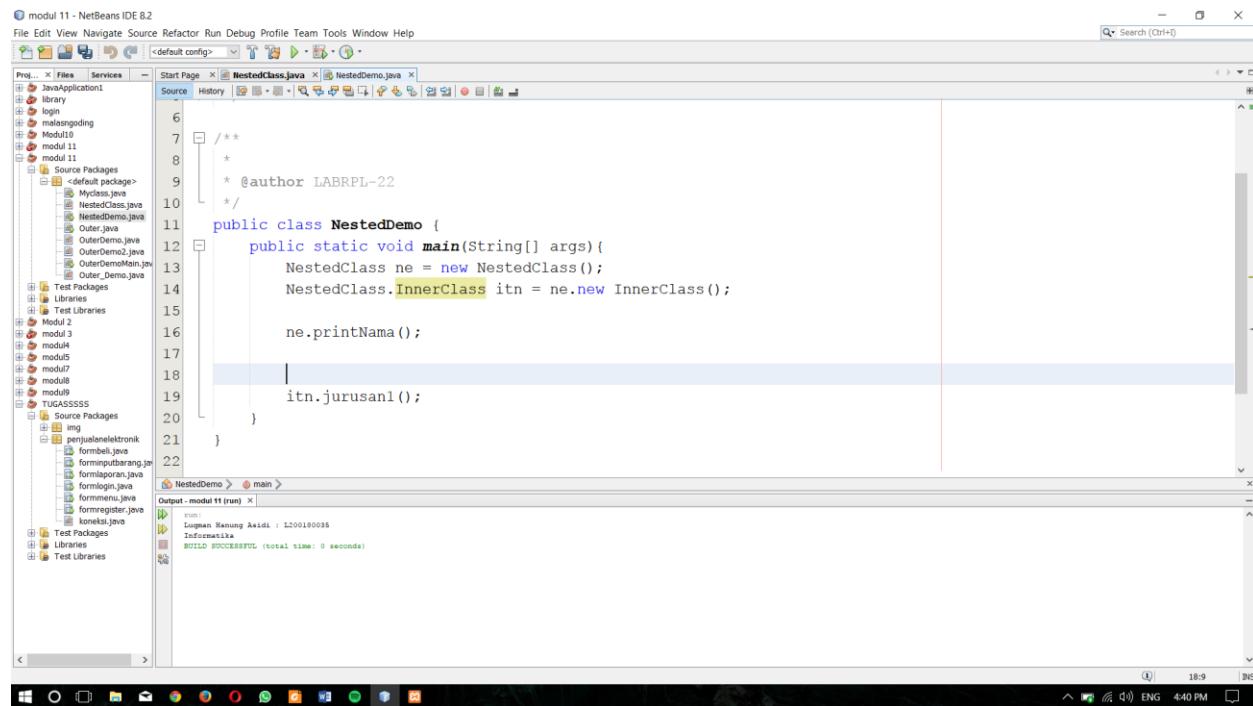
Modul 11

Latihan



The screenshot shows the NetBeans IDE interface with the title bar "modul 11 - NetBeans IDE 8.2". The left sidebar displays a project structure with several source packages and files. The main editor window contains the following Java code:

```
10  * @author asus
11  */
12  public class NestedClass {
13      String nama = "Lugman Hanung Asidi";
14      String NIM = "L200180035";
15
16      public void printNama(){
17          System.out.println(nama + " : " + NIM);
18      }
19
20      static class StaticNestedClass{
21          static String jurusan = "Informatika";
22          public void printNama(){
23              NestedClass nes = new NestedClass();
24              nes.printNama();
25          }
26      }
27
28      class InnerClass{
29          public void jurusan1(){
30              NestedClass.StaticNestedClass jrs = new NestedClass.StaticNestedClass();
31              System.out.println(jrs.jurusan);
32          }
33      }
34  }
```



The screenshot shows the NetBeans IDE interface with the title bar "modul 11 - NetBeans IDE 8.2". The left sidebar displays a project structure with several source packages and files. The main editor window contains the following Java code:

```
6  /**
7  *
8  * @author LABRPL-22
9  */
10 public class NestedDemo {
11     public static void main(String[] args){
12         NestedClass ne = new NestedClass();
13         NestedClass.InnerClass itn = ne.new InnerClass();
14
15         ne.printNama();
16
17         |
18         |
19         itn.jurusani();
20     }
21 }
```

The output window at the bottom shows the results of running the application:

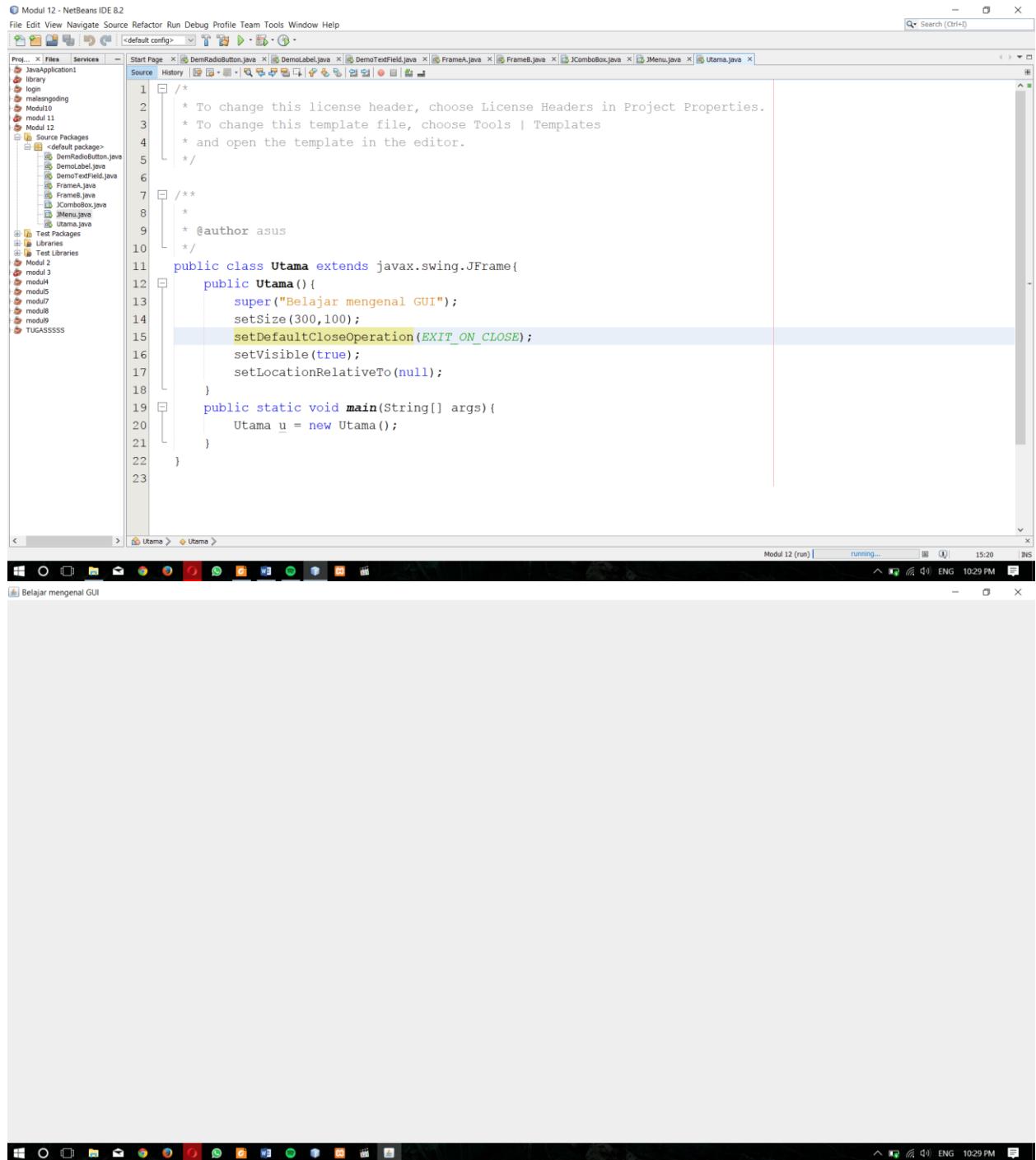
```
run:
Lugman Hanung Asidi : L200180035
Informatika
BUILD SUCCESSFUL (total time: 0 seconds)
```

Laporan Tugas Praktikum Pemrograman Berorientasi Objek

Modul 12

Latihan

1. Frame



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

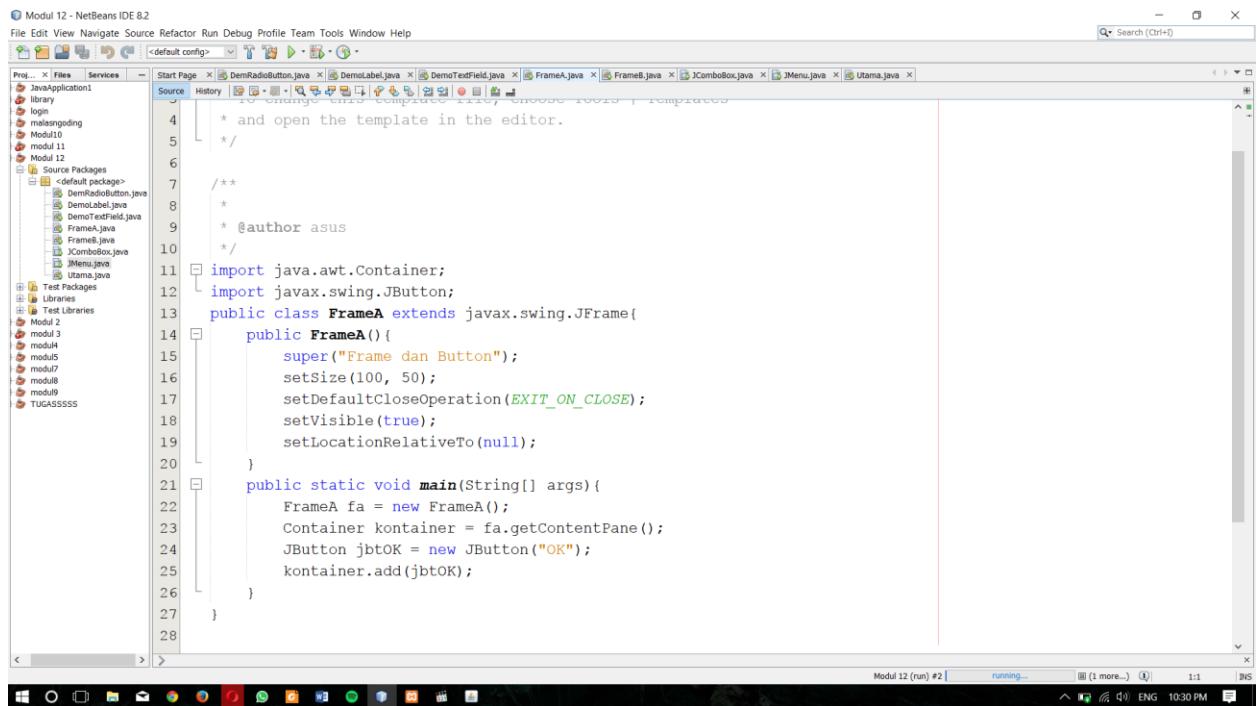
- Project Tree:** Shows multiple projects including "Javaapplication1", "malsanggding", "Modul 0", "Modul 11", and "Modul 12". "Modul 12" is expanded, showing its source packages: "Source Packages" (containing DemoRadioButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, Utama.java) and "Test Packages".
- Code Editor:** Displays the "Utama.java" file. The code defines a class "Utama" that extends "javax.swing.JFrame". It includes a constructor "Utama()" and a static main method "main(String[] args)".

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7 /**
8 *
9 * @author asus
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 }
```
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Status Bar:** Shows "Modul 12 (run)" and "running..." along with system status like battery level and network connection.
- System Tray:** Shows standard Windows system tray icons.

Konstruktor	Keterangan
JFrame()	Mengkonstruksi frame baru yang pada awalnya tidak tampak (invisible)
JFrame(String judul)	Mengkonstruksi frame baru, yang pada awalnya tidak tampak, dengan judul yang telah ditentukan.

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

2. Button



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

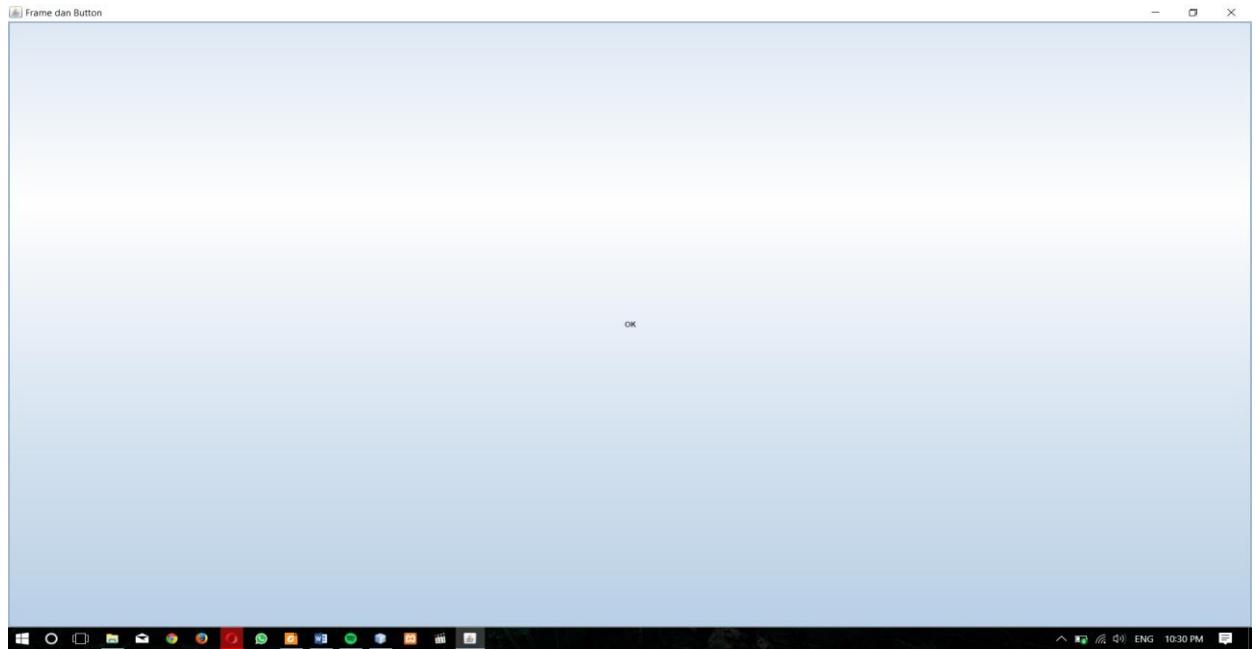
- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Project Explorer:** Shows a project named "Modul 12" containing several source packages (e.g., "Source Packages", "Test Packages") and libraries.
- Code Editor:** Displays Java code for a class named "FrameA". The code creates a frame titled "Frame dan Button", sets its size to 100x50, and adds an "OK" button to its content pane.

```

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

```

- Status Bar:** Shows the current run configuration ("Modul 12 (run) #2"), build status ("running..."), and system information like battery level and time ("ENG 10:30 PM").



Konstruktor	Keterangan
<code>JButton()</code>	Mengkonstruksi obyek button tanpa teks dan ikon.
<code>JButton(String teks)</code>	Mengkonstruksi obyek button dengan teks.
<code>JButton(Icon icon)</code>	Mengkonstruksi obyek button dengan ikon.
<code>JButton(String teks, Icon icon)</code>	Mengkonstruksi obyek button dengan teks dan ikon.

3. Container

Modul 12 - NetBeans IDE 8.2

```

 9  * @author asus
10
11  import java.net.URL;
12  import javax.swing.ImageIcon;
13  import javax.swing.JButton;
14  import javax.swing.JPanel;
15  public class FrameB extends javax.swing.JFrame{
16      public FrameB(){
17          super("Frame dan Button");
18          setSize(500, 500);
19          setDefaultCloseOperation(EXIT_ON_CLOSE);
20          setVisible(true);
21          setLocationRelativeTo(null);
22      }
23      public static void main(String[] args){
24          FrameB fb = new FrameB();
25          JPanel panel = new JPanel();
26          URL img = FrameB.class.getResource("shakehand2.png");
27          JButton jbtOK = new JButton("OK");
28          JButton jbtImg = new JButton(new ImageIcon(img));
29          panel.add(jbtOK);
30          panel.add(jbtImg);
31          fb.add(panel);
32          fb.setVisible(true);
33      }
34  }

```

Modul 12 (run) | running... | 1:1 | ENG 10:31 PM

Modul 12 - NetBeans IDE 8.2

Frame dan Button

Python Shell

```

File Edit Shell Debug Options Windows Help
Python 3.1.4 (default, Jun 12 2011, 18:05:44) [MSC v.1800 32 bit (Intel)]
Type "copyright", "credits" or "license()" for more information.
>>> 4 + 5
9
>>> print ("Reza Pratama")
Reza Pratama
>>> print ("Rim : L200190182")
Rim : L200190182
>>> quit()
Traceback (most recent call last):
  File "<pyshell#3>", line 1, in <module>
    q
  File "C:\Python31\lib\site.py", line 348, in __call__
    raise SystemExit(code)
SystemExit: None
>>>

```

Modul 12 (run) | running... | 1:1 | ENG 4:33 PM

4. Label

Modul 12 - NetBeans IDE 8.2

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

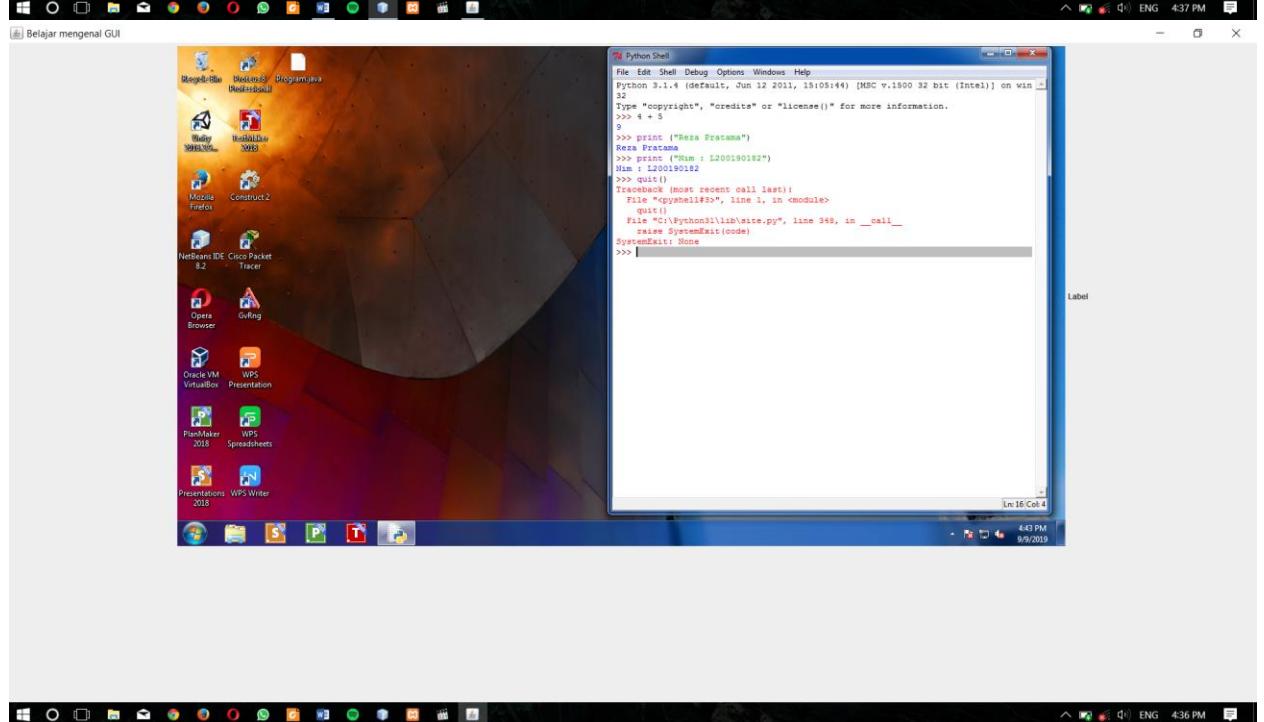
Start Page DemoRadioButton.java DemoLabel.java DemoTextField.java FrameA.java FrameB.java

```

7  /*
8   * To change this license header, choose License Headers in Project Properties.
9   * To change this template file, choose Tools | Templates
10  * and open the template in the editor.
11  */
12  */
13 /**
14  */
15 /**
16  * @author L200180035
17 */
18 public class DemoLabel {
19     public static void main(String[] args){
20         Utama u = new Utama();
21         u.setSize(500, 500);
22         URL img = FrameB.class.getResource("shakehand2.png");
23         ImageIcon ikon = new ImageIcon(img);
24         JLabel label = new JLabel("Label", ikon, SwingConstants.CENTER);
25         JPanel panel = new JPanel();
26         panel.add(label);
27         u.add(panel);
28     }
29 }

```

DemoLabel > main > img

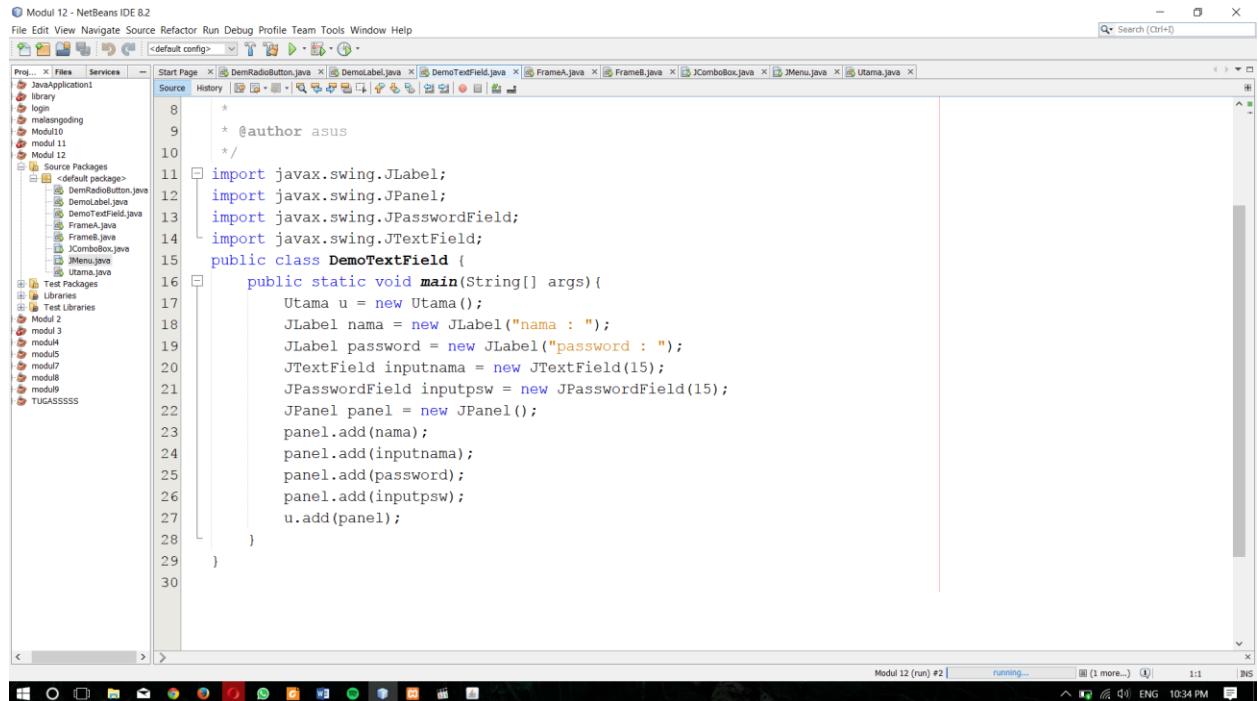


Konstruktor

Keterangan

JLabel(String teks)	Mengkonstruksi obyek label dengan teks.
JLabel(String teks, int i)	Mengkonstruksi obyek label dengan teks serta menentukan penjajaran secara horisontal.
JLabel(String teks, Icon ic, int i)	Mengkonstruksi obyek label dengan teks dan ikon serta menentukan penjajaran secara horisontal.

5. TextField dan PasswordField

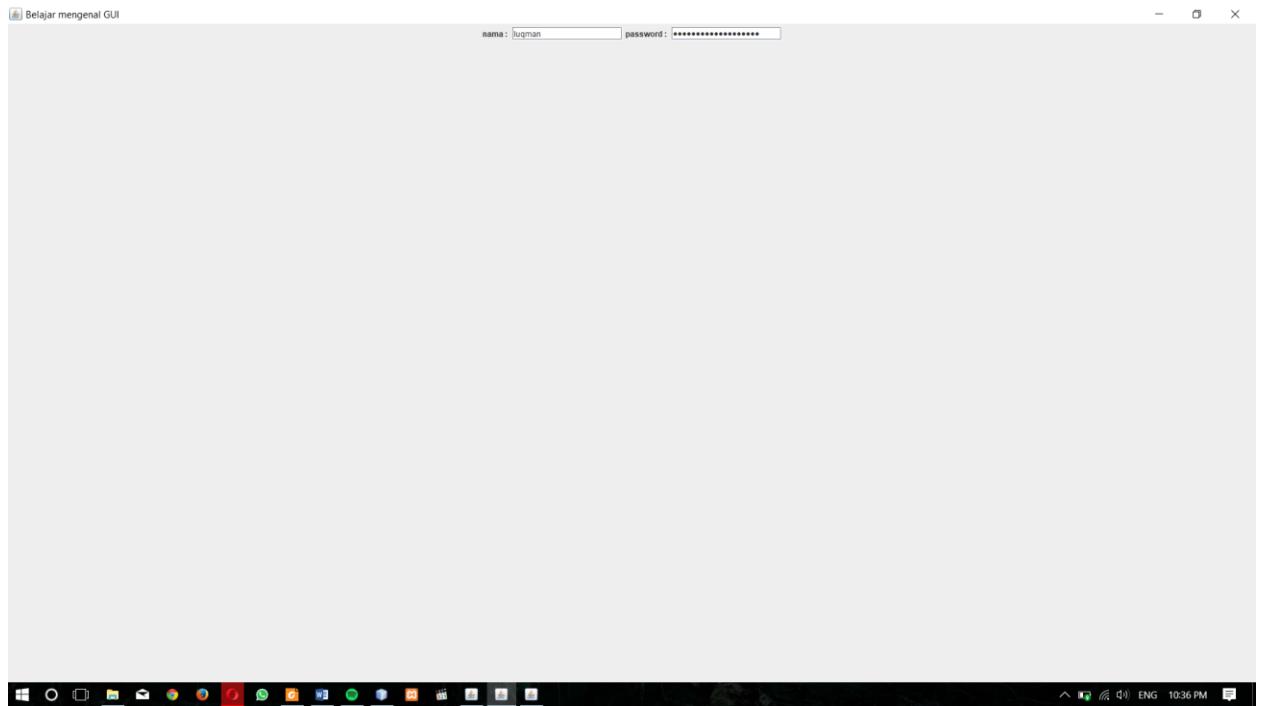


The screenshot shows the NetBeans IDE interface with the title bar "Modul 12 - NetBeans IDE 8.2". The left sidebar displays a project structure with packages like "library", "login", "malsangoding", "Modul 1", and "Modul 12", and source files such as "DemoRadioButton.java", "Demotlabel.java", "DemoTextField.java", "FrameA.java", "FrameB.java", "JComboBox.java", "JMenu.java", and "Utama.java". The main editor window shows the code for "DemoTextField.java".

```

8  *
9   * @author asus
10  */
11 import javax.swing.JLabel;
12 import javax.swing.JPanel;
13 import javax.swing.JPasswordField;
14 import javax.swing.JTextField;
15 public class DemoTextField {
16     public static void main(String[] args){
17         Utama u = new Utama();
18         JLabel nama = new JLabel("nama : ");
19         JLabel password = new JLabel("password : ");
20         JTextField inputnama = new JTextField(15);
21         JPasswordField inputpsw = new JPasswordField(15);
22         JPanel panel = new JPanel();
23         panel.add(nama);
24         panel.add(inputnama);
25         panel.add(password);
26         panel.add(inputpsw);
27         u.add(panel);
28     }
29 }

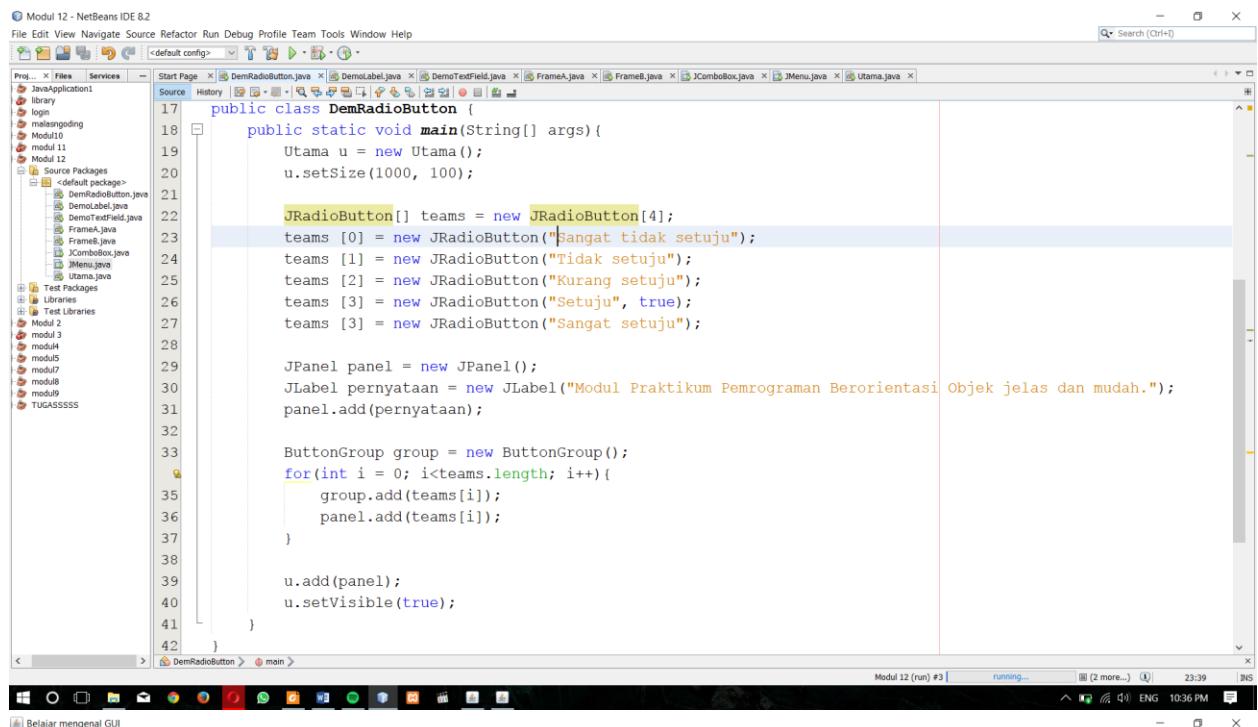
```



Konstruktor	Keterangan
JTextField()	Mengkonstruksi obyek dengan teks kosong.
JTextField(int i)	Mengkonstruksi obyek dengan teks kosong dan jumlah kolom ditentukan oleh parameter i.
JTextField(String i)	Mengkonstruksi obyek dengan teks ditentukan oleh nilai parameter i.
JTextField(String teks, int i)	Mengkonstruksi obyek dengan teks ditentukan oleh nilai parameter teks dan jumlah kolom oleh nilai parameter i.

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

6. Radio Button dan CheckBox



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

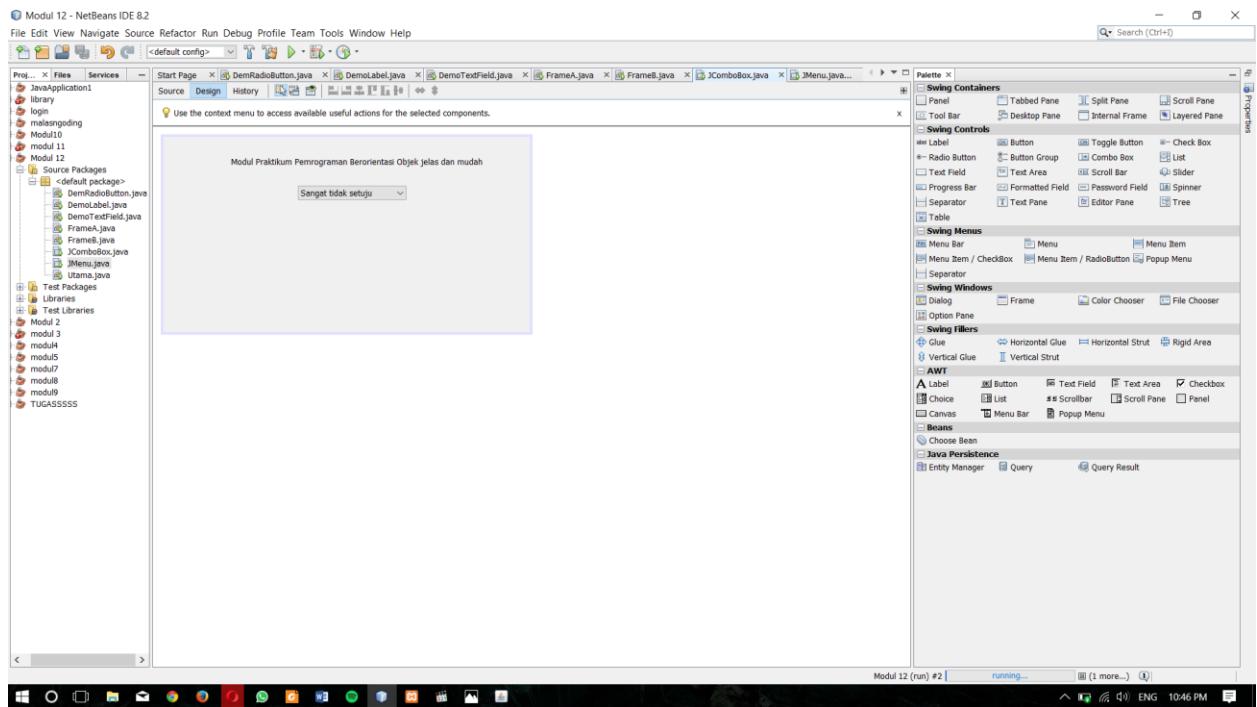
- Project Explorer:** Shows files like JavaApplication1, login, malsanggeding, Modul10, modul11, Modul12, Source Packages (containing DemRadioButton.java, DemoLabel.java, DemoTextField.java, FrameA.java, FrameB.java, JComboBox.java, JMenu.java, Utama.java), Test Packages, Libraries, and TUGASSSSS.
- Code Editor:** Displays the Java code for `DemRadioButton`. The code creates a `JFrame` named `Utama` with a size of 1000x100. It initializes a `ButtonGroup` and four `JRadioButton` buttons labeled "Sangat tidak setuju", "Tidak setuju", "Kurang setuju", and "Setuju". The "Setuju" button is selected by default (`true`). A `JPanel` contains a `JLabel` with the text "Modul Praktikum Pemrograman Berorientasi Objek jelas dan mudah.".
- Output Window:** Shows "Modul 12 (run) #3 | running | (2 more...) | ENG 10:36 PM | BNS".
- Taskbar:** Shows the application window titled "Belajar mengenal GUI".
- System Tray:** Shows icons for battery, signal, and time (10:36 PM).

```
17 public class DemRadioButton {  
18     public static void main(String[] args){  
19         Utama u = new Utama();  
20         u.setSize(1000, 100);  
21  
22         JRadioButton[] teams = new JRadioButton[4];  
23         teams [0] = new JRadioButton("Sangat tidak setuju");  
24         teams [1] = new JRadioButton("Tidak setuju");  
25         teams [2] = new JRadioButton("Kurang setuju");  
26         teams [3] = new JRadioButton("Setuju", true);  
27         teams [3] = new JRadioButton("Sangat setuju");  
28  
29         JPanel panel = new JPanel();  
30         JLabel pernyataan = new JLabel("Modul Praktikum Pemrograman Berorientasi Objek jelas dan mudah.");  
31         panel.add(pernyataan);  
32  
33         ButtonGroup group = new ButtonGroup();  
34         for(int i = 0; i<teams.length; i++){  
35             group.add(teams[i]);  
36             panel.add(teams[i]);  
37         }  
38  
39         u.add(panel);  
40         u.setVisible(true);  
41     }  
42 }
```

Konstruktor	Keterangan
JCheckBox (String teks)	Mengkonstruksi obyek check box dengan text.
JCheckBox(String, Boolean)	Mengkonstruksi obyek check box dengan text serta menentukan apakah check box dalam kondisi dipilih atau tidak.
JCheckBox(icon)	Mengkonstruksi obyek check box dengan ikon.
JCheckBox(icon, Boolean)	Mengkonstruksi obyek check box dengan ikon serta menentukan apakah check box dalam kondisi dipilih atau tidak.
JCheckBox(String text, icon)	Mengkonstruksi obyek check box dengan text dan ikon.
JCheckBox(String text, icon, boolean)	Mengkonstruksi obyek check box dengan text dan ikon serta menentukan apakah check box dalam kondisi dipilih atau tidak

Tugas

1. JComboBox



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

- Toolbar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Project Explorer:** Shows JavaApplication1, JavaApplication1, log4j, malingoding, Module10, modul11, modul12, and TUGAS5555.
- Source Editor:** The current file is JComboBox.java. The code is as follows:

```
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  *
9  * @author asus
10 */
11 public class JComboBox extends javax.swing.JFrame {
12
13     /**
14      * Creates new form JComboBox
15     */
16     public JComboBox() {
17         super("Tugas 1");
18         initComponents();
19     }
20
21     JComboBox(String sangat_tidak_setuju) {
22         throw new UnsupportedOperationException("Not supported yet.");
23     }
24
25     /**

```

The code includes comments and annotations, such as the package declaration and the creation of a new form named "JComboBox". It also contains a constructor that throws an UnsupportedOperationException.

The screenshot shows the NetBeans IDE interface with the title "Module 12 - NetBeans IDE 8.2". The left sidebar displays the project structure under "Proj... x Files Services". The main editor window shows Java code for a class named "JComboBox". The code includes comments explaining the constructor initialization and a warning about modifying generated code. It features several annotations like `@Generated Code` and `@SuppressWarnings("unchecked")`. The code implements the `ActionListener` interface with the `jComboBox1ActionPerformed` method, which contains a TODO comment. It also defines a `main` method that sets the Nimbus look and feel, creates a form, and makes it visible. The code uses Java 8 syntax such as `java.awt.EventQueue.invokeLater` and `Runnable`.

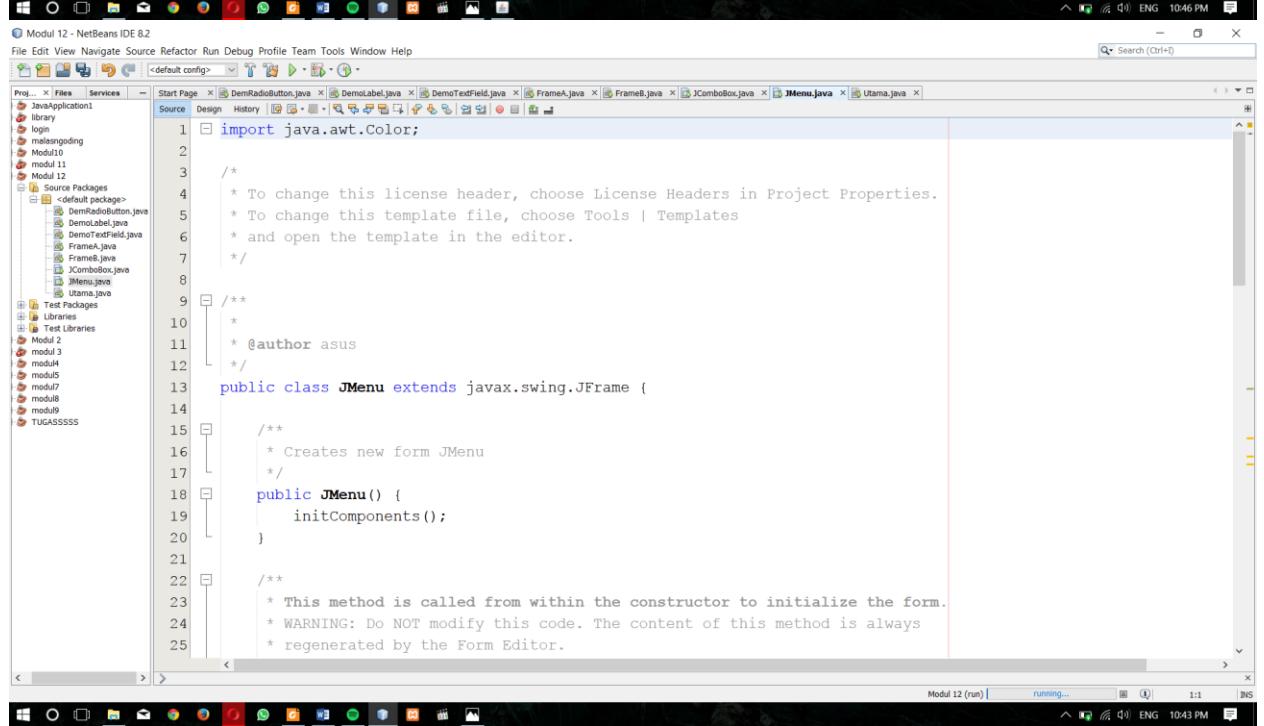
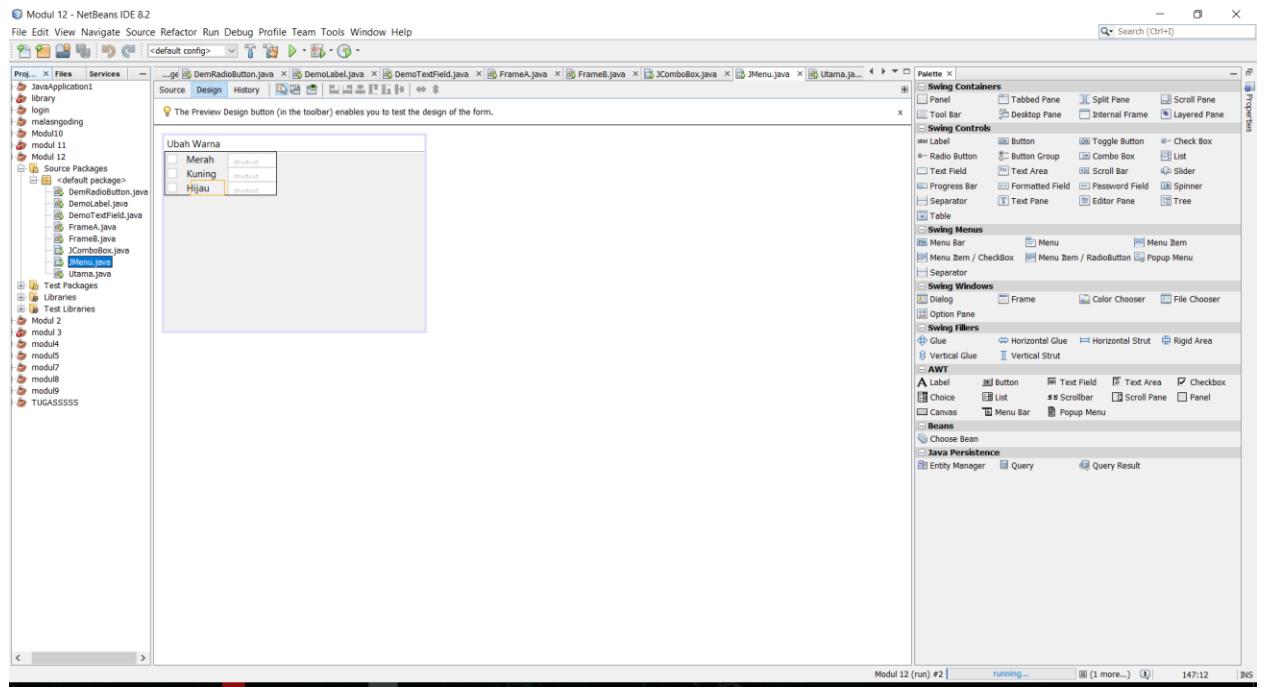
```
25     /**
26      * This method is called from within the constructor to initialize the form.
27      * WARNING: Do NOT modify this code. The content of this method is always
28      * regenerated by the Form Editor.
29     */
30     @SuppressWarnings("unchecked")
31     Generated Code
32
33     private void jComboBox1ActionPerformed(java.awt.event.ActionEvent evt) {
34         // TODO add your handling code here:
35     }
36
37     /**
38      * @param args the command line arguments
39     */
40     public static void main(String args[]) {
41         /* Set the Nimbus look and feel */
42         Look and feel setting code (optional)
43
44         /* Create and display the form */
45         java.awt.EventQueue.invokeLater(new Runnable() {
46             public void run() {
47                 new JComboBox().setVisible(true);
48             }
49         });
50     }
51 }
```

Module 12 - NetBeans IDE 8.2

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

Module 12 - 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.
5   */
6
7  /**
8   *
9   * @author L200180035
10 */
11 public class JComboBox {
12
13     /**
14      * Creates new form JComboBox
15     */
16     public JComboBox() {
17         super("Tugas 1");
18     }
19
20     /**
21      * This method is called from within the constructor to
22      * initialize the form.
23     */
24     @Override
25     public void paintComponent(Graphics g) {
26         super.paintComponent(g);
27         g.drawString("Modul Praktikum Pemrograman Berorientasi Objek jelas dan mudah", 10, 10);
28     }
29
30     /**
31      * Mouse Clicked
32     */
33     public void mouseClicked(MouseEvent e) {
34         if (e.getButton() == MouseEvent.BUTTON1) {
35             String[] items = {"Sangat Tidak Setuju", "Sangat Tidak Setuju", "Tidak Setuju", "Kurang Setuju", "Setuju", "Sangat Setuju"};
36             JComboBox dropdown = new JComboBox(items);
37             dropdown.show();
38         }
39     }
40
41     /**
42      * Mouse Entered
43     */
44     public void mouseEntered(MouseEvent e) {
45     }
46
47     /**
48      * Mouse Left
49     */
50     public void mouseLeft(MouseEvent e) {
51     }
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53     /**
54      * Mouse Released
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56     public void mouseReleased(MouseEvent e) {
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62     public void mouseDragged(MouseEvent e) {
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68     public void mousePressed(MouseEvent e) {
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74     public void mouseWheelMoved(MouseWheelEvent e) {
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90      * Key Typed
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The screenshot shows the NetBeans IDE interface with the title bar "Modul 12 - NetBeans IDE 8.2". The left sidebar displays a project structure with modules like "Modul 10", "Modul 11", "Modul 12", and "Modul 13". The main editor area shows Java code for the "JMenu.java" file. The code includes three menu item action handlers: jMenuItem4ActionPerformed, jMenuItem5ActionPerformed, and jMenuItem7ActionPerformed, each setting the content pane's background color to red, yellow, or green respectively. It also contains a main method that sets the Nimbus look and feel.

```
26     */
27     @SuppressWarnings("unchecked")
28     Generated Code
29
30     private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) {
31         // TODO add your handling code here:
32         this.getContentPane().setBackground(Color.red);
33     }
34
35     private void jMenuItem5ActionPerformed(java.awt.event.ActionEvent evt) {
36         // TODO add your handling code here:
37         this.getContentPane().setBackground(Color.yellow);
38     }
39
40     private void jMenuItem7ActionPerformed(java.awt.event.ActionEvent evt) {
41         // TODO add your handling code here:
42         this.getContentPane().setBackground(Color.green);
43     }
44
45     /**
46      * @param args the command line arguments
47     */
48     public static void main(String args[]) {
49         /* Set the Nimbus look and feel */
50
51         //
```

The screenshot shows the NetBeans IDE interface with the title bar "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, Save, Build, Run, Stop, and Exit. The left sidebar shows the project structure under "Modul 12" with packages like "com.tugassss", "default package", and "Test Packages". The main editor window displays the Java code for "JMenu.java". The code defines a static main method that sets the Nimbus look and feel, creates and displays a form using java.awt.EventQueue.invokeLater, and initializes variables for JMenus, JMenuBar, and JMenuItem items.

```
117 */  
118 public static void main(String args[]) {  
119     /* Set the Nimbus look and feel */  
120     Look and feel setting code (optional)  
121  
122     /* Create and display the form */  
123     java.awt.EventQueue.invokeLater(new Runnable() {  
124         public void run() {  
125             new JMenu().setVisible(true);  
126         }  
127     });  
128  
129     // Variables declaration - do not modify  
130     private javax.swing.JMenu jMenu1;  
131     private javax.swing.JMenu jMenu2;  
132     private javax.swing.JMenu jMenu3;  
133     private javax.swing.JMenuBar jMenuBar1;  
134     private javax.swing.JMenuItem jMenuItem1;  
135     private javax.swing.JMenuItem jMenuItem2;  
136     private javax.swing.JMenuItem jMenuItem3;  
137     private javax.swing.JMenuItem jMenuItem4;  
138     private javax.swing.JMenuItem jMenuItem5;  
139     private javax.swing.JMenuItem jMenuItem6;  
140     private javax.swing.JMenuItem jMenuItem7;  
141     private javax.swing.JPopupMenu jPopupMenu1;  
142 }
```

