

**OBJECT-ORIENTED PROGRAMMING LABORATORY WORK**

**MODULE 8**



**CREATED BY :**

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**L200214253**

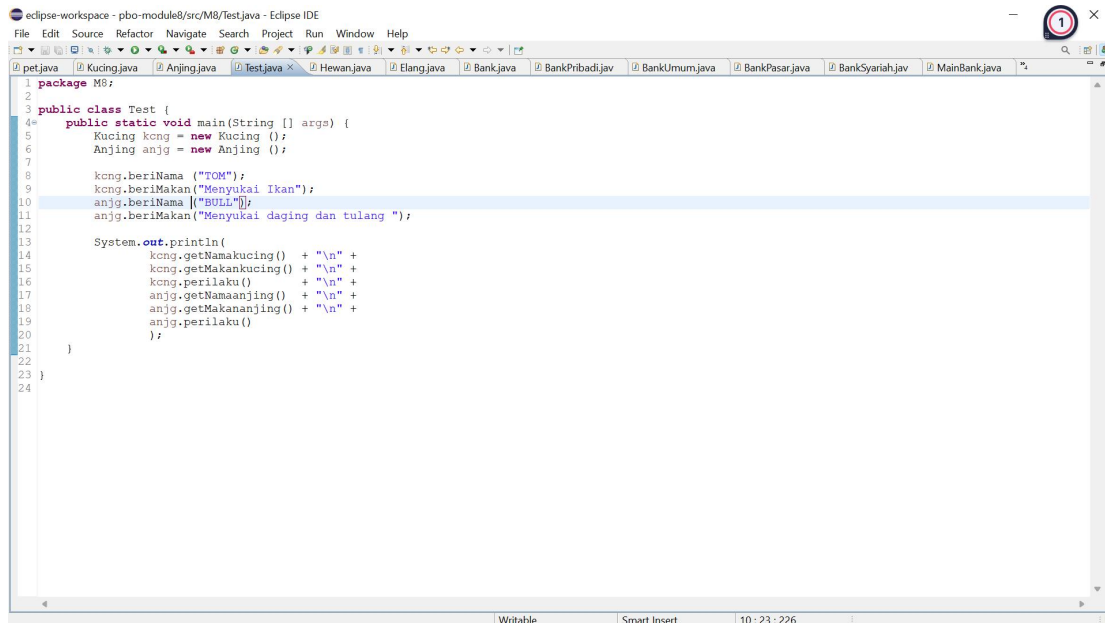
**INFORMATICS STUDY PROGRAM**

**FACULTY OF COMMUNICATION AND INFORMATION SCIENCE**

**MUHAMMADIYAH SURAKARTA UNIVERSITY**

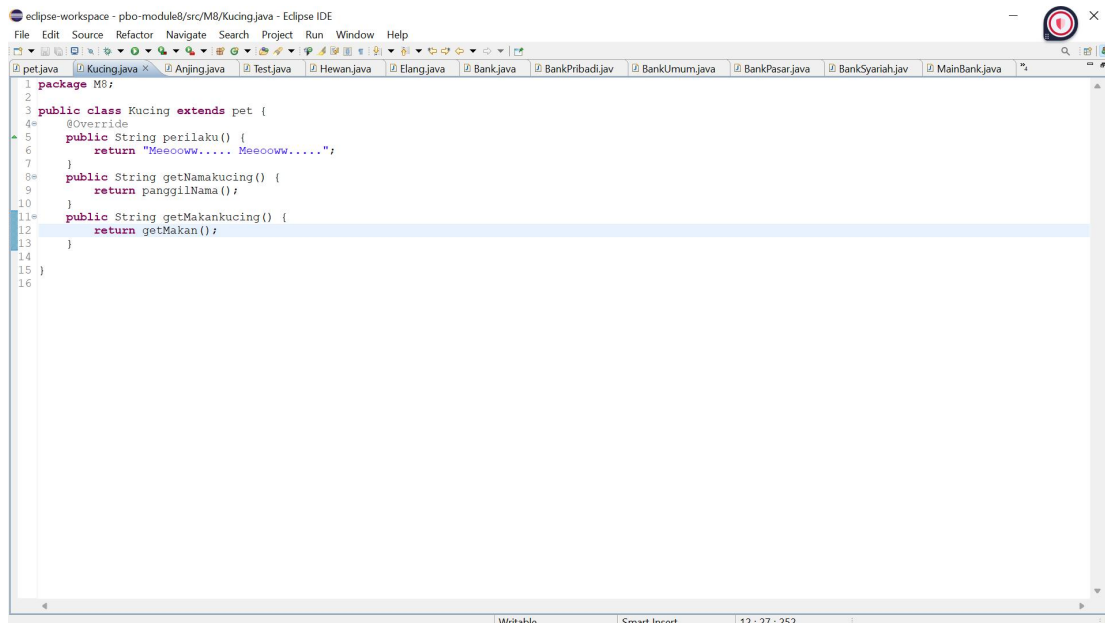
## 8.2 EXERCISES

### PET



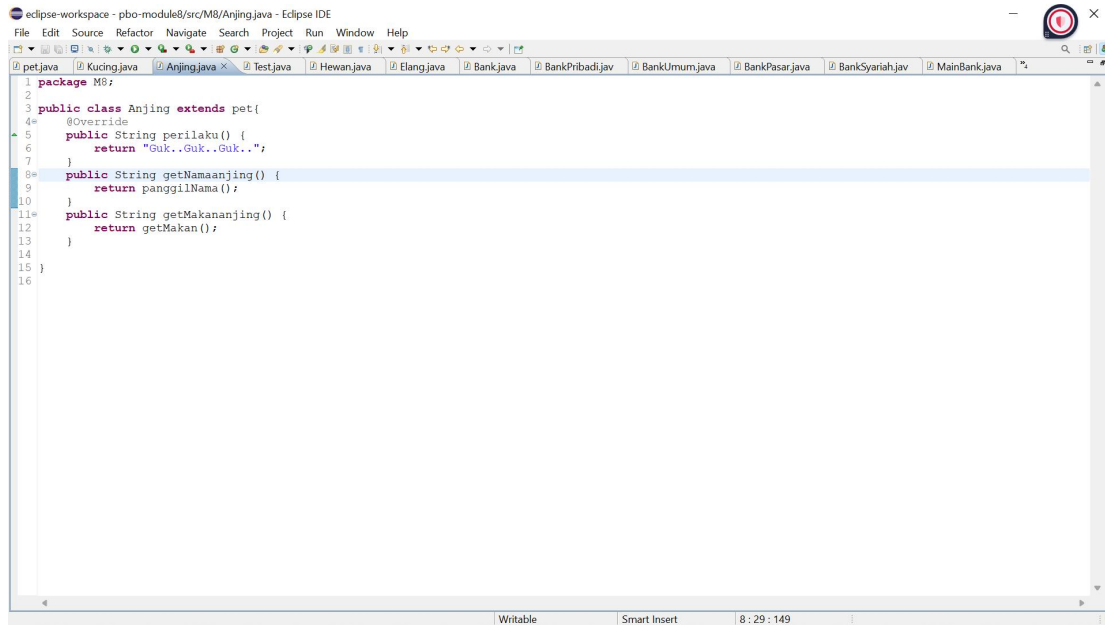
```
1 package M8;
2
3 public class Test {
4     public static void main(String [] args) {
5         Kucing kong = new Kucing ();
6         Anjing anjg = new Anjing ();
7
8         kong.beriNama ("TOM");
9         kong.beriMakan ("Menyukai Ikan");
10        anjg.beriNama ("BULL");
11        anjg.beriMakan ("Menyukai daging dan tulang ");
12
13        System.out.println(
14            kong.getNamakucing() + "\n" +
15            kong.getMakankucing() + "\n" +
16            kong.perilaku() + "\n" +
17            anjg.getNamaanjing() + "\n" +
18            anjg.getMakananjing() + "\n" +
19            anjg.perilaku()
20        );
21    }
22 }
23
24
```

### KUCING



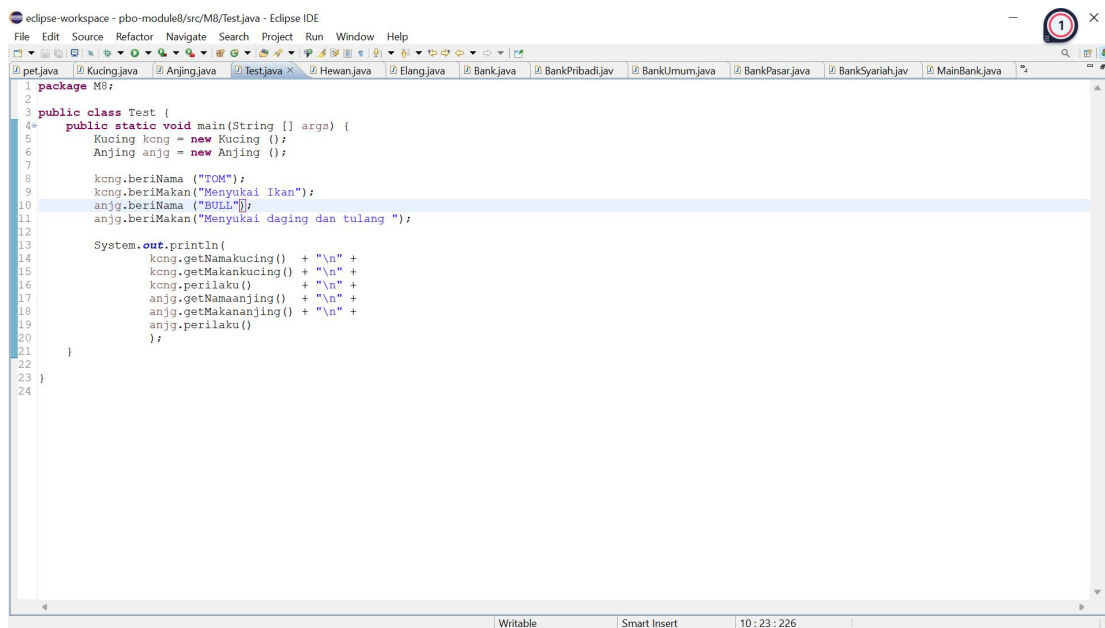
```
1 package M8;
2
3 public class Kucing extends pet {
4     @Override
5     public String perilaku() {
6         return "Meooow..... Meooow.....";
7     }
8     public String getNamakucing() {
9         return panggilNama ();
10    }
11    public String getMakankucing() {
12        return getMakan ();
13    }
14 }
15
16
```

### ANJING



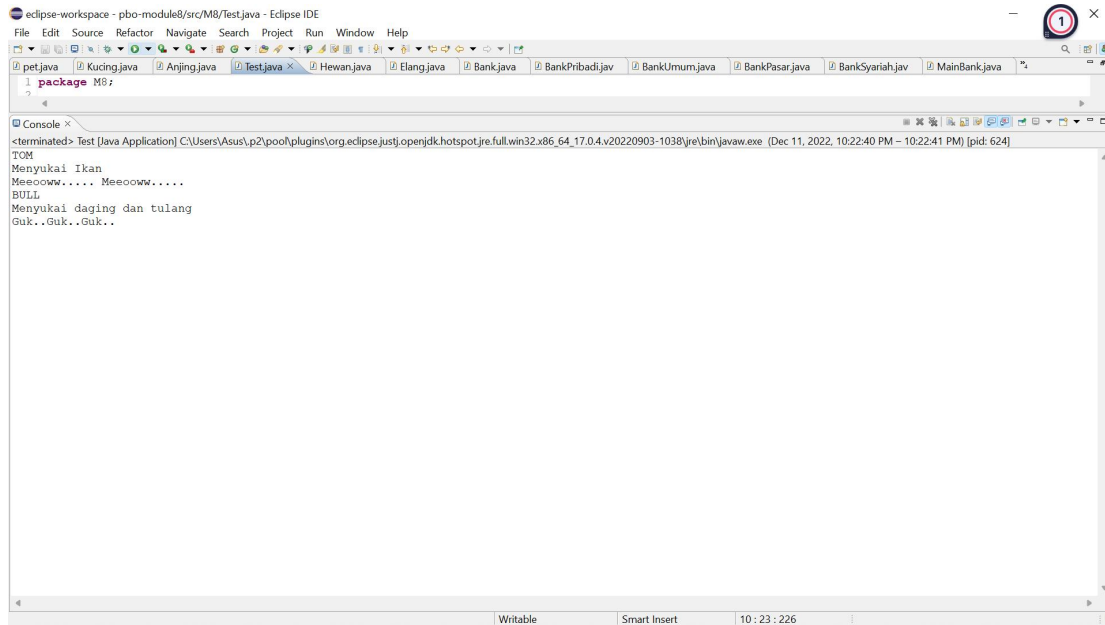
```
1 package M8;
2
3 public class Anjing extends pet{
4     @Override
5     public String perilaku() {
6         return "Guk..Guk..Guk..";
7     }
8     public String getNamaanjing() {
9         return panggilNama();
10    }
11    public String getMakananjing() {
12        return getMakan();
13    }
14 }
15
16
```

## MAIN



```
1 package M8;
2
3 public class Test {
4     public static void main(String [] args) {
5         Kucing kong = new Kucing ();
6         Anjing anjg = new Anjing ();
7
8         kong.beriNama ("TOM");
9         kong.beriMakan ("Menyukai Ikan");
10        anjg.beriNama ("BULL");
11        anjg.beriMakan ("Menyukai daging dan tulang ");
12
13        System.out.println(
14            kong.getNamakucing() + "\n" +
15            kong.getMakankucing() + "\n" +
16            kong.perilaku() + "\n" +
17            anjg.getNamaanjing() + "\n" +
18            anjg.getMakananjing() + "\n" +
19            anjg.perilaku()
20        );
21    }
22 }
23
24
```

## OUTPUT:



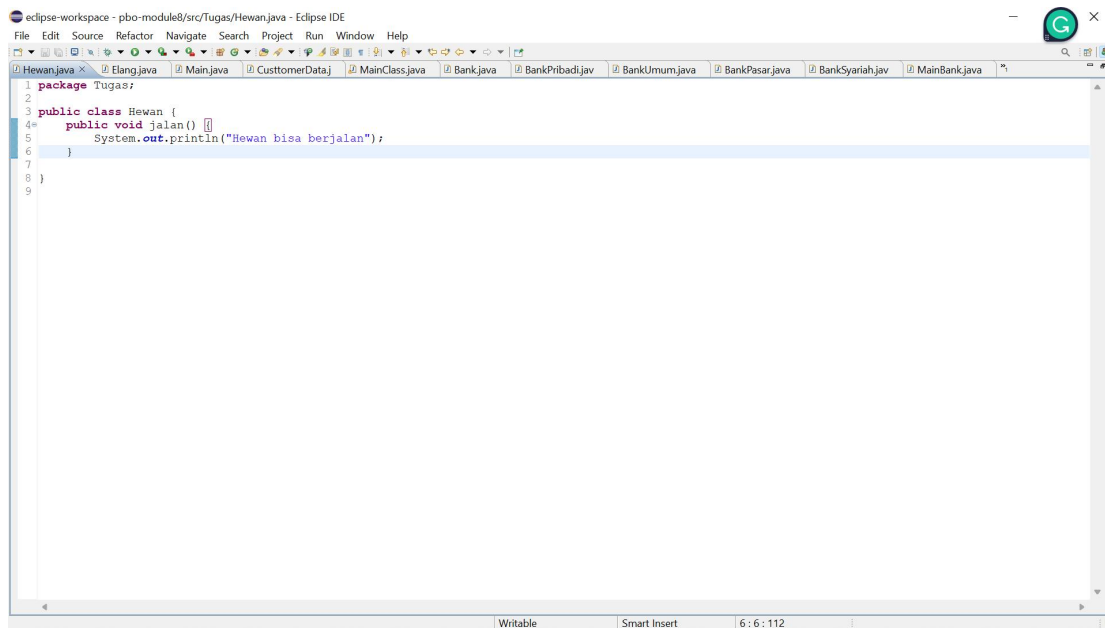
The screenshot shows the Eclipse IDE interface. The top menu bar includes File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, and Help. The package explorer on the left shows a package named 'M8'. The console window at the bottom displays the following output:

```
<terminated> Test [Java Application] C:\Users\Asus\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.4.v20220903-1038\jre\bin\javaw.exe (Dec 11, 2022, 10:22:40 PM - 10:22:41 PM) [pid: 624]  
TOM  
Menyukai Ikan  
Meeooww..... Meeooww.....  
BULL  
Menyukai daging dan tulang  
Guk..Guk..Guk..
```

## 8.3 TASKS

### 1. Rewrite like program 4 and create an Eagle class that has a path() method

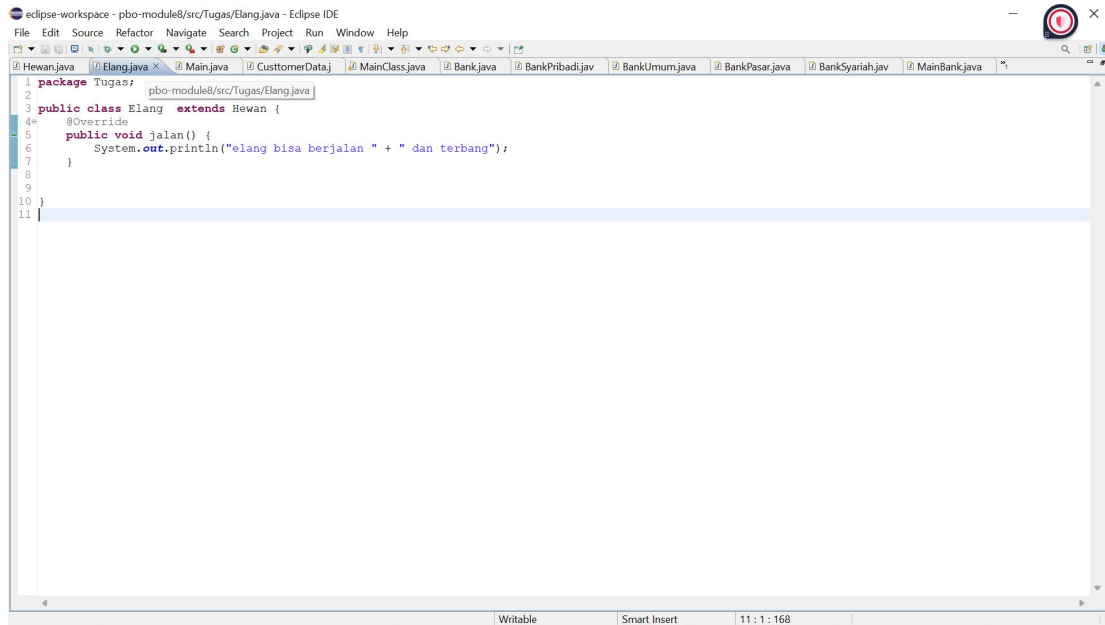
#### Hewan



The screenshot shows the Eclipse IDE interface with the 'Hewan.java' file open. The code is as follows:

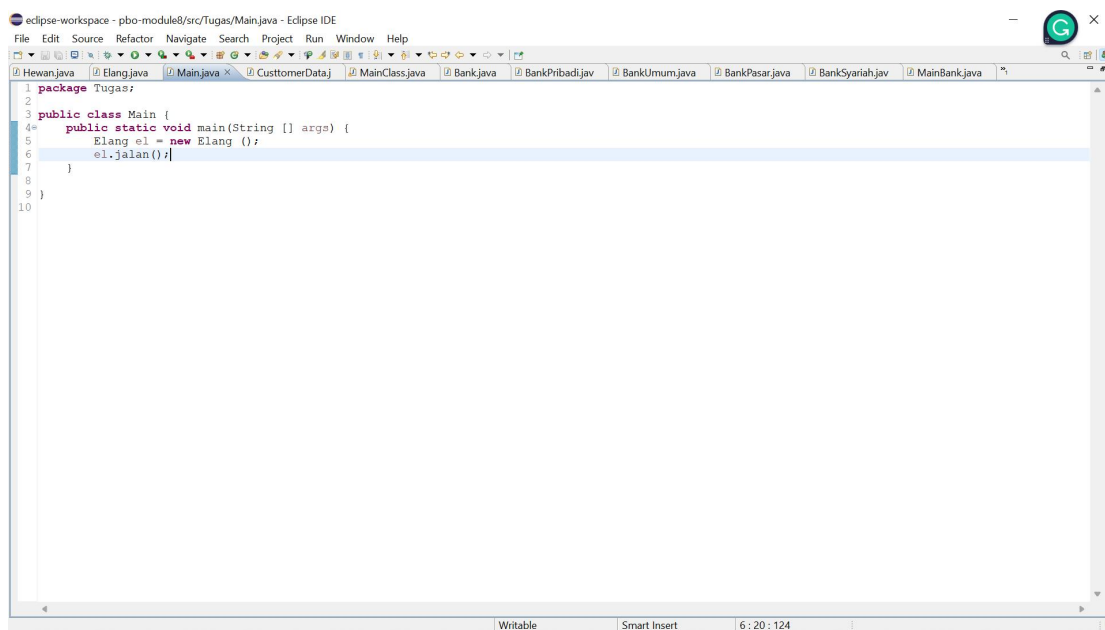
```
1 package Tugas;  
2  
3 public class Hewan {  
4     public void jalan() {  
5         System.out.println("Hewan bisa berjalan");  
6     }  
7  
8 }  
9
```

#### ELANG



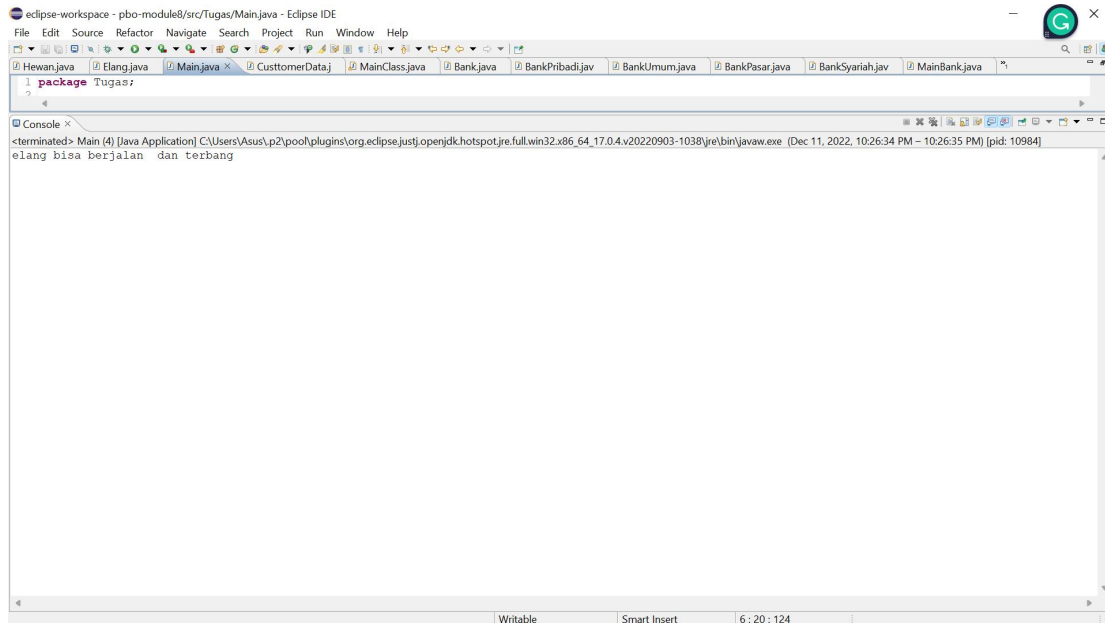
```
1 package Tugas;
2
3 public class Elang extends Hewan {
4     @Override
5     public void jalan() {
6         System.out.println("elang bisa berjalan " + " dan terbang");
7     }
8
9
10 }
11
```

## MAIN

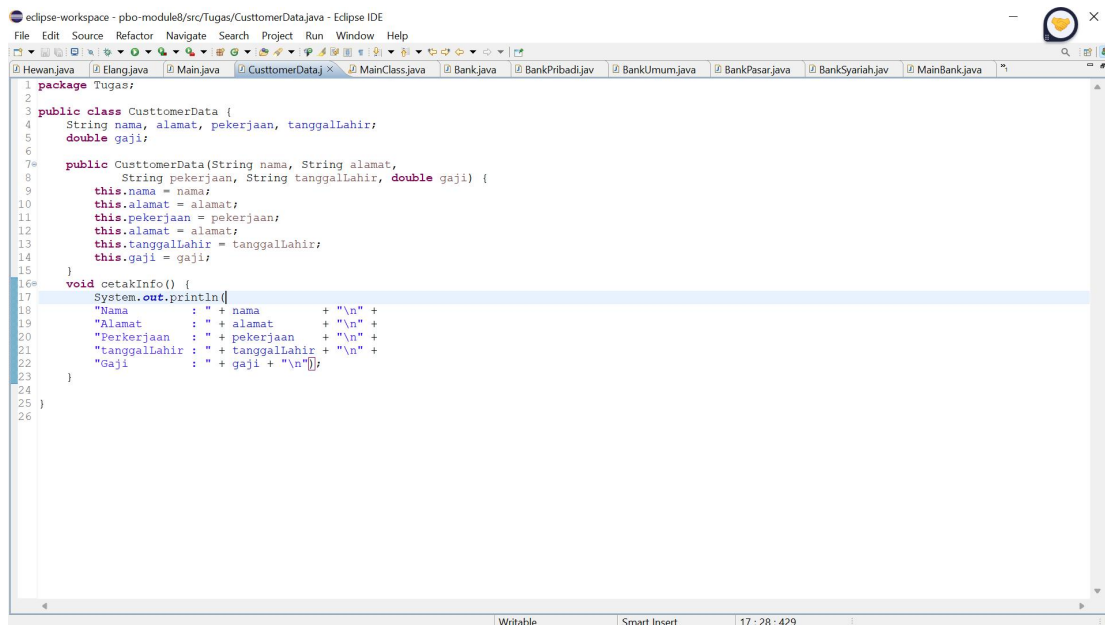


```
1 package Tugas;
2
3 public class Main {
4     public static void main(String [] args) {
5         Elang e1 = new Elang ();
6         e1.jalan();
7     }
8
9 }
10
```

**OUTPUT :**



2. Create a class named CustomerData, which contains the variables name, address, date of birth, occupation, and salary. Then create an overloading constructor of that class.



3. Create a main class which is accompanied by 10 customer objects from the CustomerData class

```
eclipse-workspace - pbo-module8/src/Tugas/MainClass.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Hewan.java Hlang.java Main.java CustomerDataj MainClass.java Bank.java BankPribadi.jav BankUmum.java BankPasar.java BankSyariah.jav MainBank.java
1 package Tugas;
2
3 public class MainClass {
4     public static void main(String [] args) {
5         System.out.println("----- Daftar Nama -----" + "\n");
6
7         CustomerData cd1 = new CustomerData("Raihan", "Surakarta", "Manager", "22.06.2002", 100000);
8         cd1.cetakInfo();
9
10        CustomerData cd2 = new CustomerData("Ronald", "Surakarta", "Manager", "22.06.2002", 100000);
11        cd2.cetakInfo();
12
13        CustomerData cd3 = new CustomerData("Rai", "Surakarta", "Manager", "22.06.2002", 100000);
14        cd3.cetakInfo();
15
16        CustomerData cd4 = new CustomerData("Kurniawan", "Surakarta", "Manager", "22.06.2002", 100000);
17        cd4.cetakInfo();
18
19        CustomerData cd5 = new CustomerData("Bagas", "Surakarta", "Manager", "22.06.2002", 100000);
20        cd5.cetakInfo();
21
22        CustomerData cd6 = new CustomerData("Kur", "Surakarta", "Manager", "22.06.2002", 100000);
23        cd6.cetakInfo();
24
25        CustomerData cd7 = new CustomerData("Bagaskara", "Surakarta", "Manager", "22.06.2002", 100000);
26        cd7.cetakInfo();
27
28        CustomerData cd8 = new CustomerData("Kurniawan Bagaskara", "Surakarta", "Manager", "22.06.2002", 100000);
29        cd8.cetakInfo();
30
31        CustomerData cd9 = new CustomerData("Wisnu", "Surakarta", "Manager", "22.06.2002", 100000);
32        cd9.cetakInfo();
33
34        CustomerData cd10 = new CustomerData("Alen", "Surakarta", "Manager", "22.06.2002", 100000);
35        cd10.cetakInfo();
36    }
37 }
38
39
Writable Smart Insert 35:13:1368
```

## OUTPUT:

```
eclipse-workspace - pbo-module8/src/Tugas/MainClass.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Hewan.java Hlang.java Main.java CustomerDataj MainClass.java Bank.java BankPribadi.jav BankUmum.java BankPasar.java BankSyariah.jav MainBank.java
1 package Tugas;
2
3
4
Console
<terminated> MainClass [Java Application] C:\Users\Asus\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.4.v20220903-1038\jre\bin\javaw.exe (Dec 11, 2022, 10:46:13 PM - 10:46:13 PM) [pid: 4412]
tanggalLahir : 22.06.2002
Gaji : 100000.0
Nama : Kur
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
Nama : Bagaskara
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
Nama : Kurniawan Bagaskara
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
Nama : Wisnu
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
Nama : Alen
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
```

```
eclipse-workspace - pbo-module8/src/Tugas/MainClass.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Hewan.java Elang.java Main.java CustomerData.java MainClass.java Bank.java BankPribadi.java BankUmum.java BankPasar.java BankSyariah.java MainBank.java
1 package Tugas;

<terminated> MainClass [Java Application] C:\Users\Asus\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.4.v20220903-1038\jre\bin\javaw.exe (Dec 11, 2022, 10:46:13 PM - 10:46:13 PM) [pid: 4412]
tanggalLahir : 22.06.2002
Gaji : 100000.0

Nama : Kur
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0

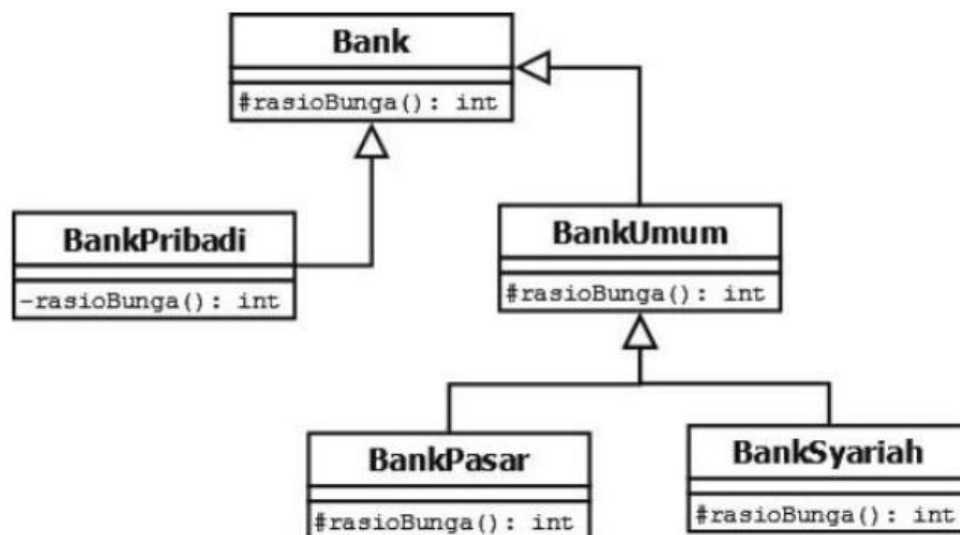
Nama : Bagaskara
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0

Nama : Kurniawan Bagaskara
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0

Nama : Wionu
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0

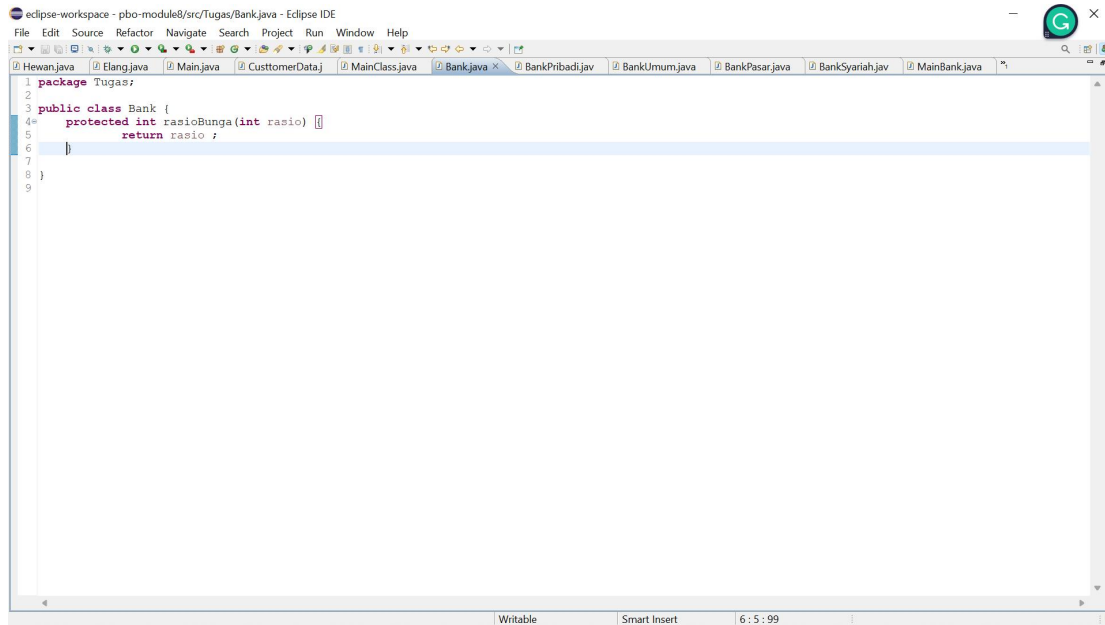
Nama : Alen
Alamat : Surakarta
Perkerjaan : Manager
tanggalLahir : 22.06.2002
Gaji : 100000.0
```

4. Create a class based on the UML diagram below, and apply polymorphism



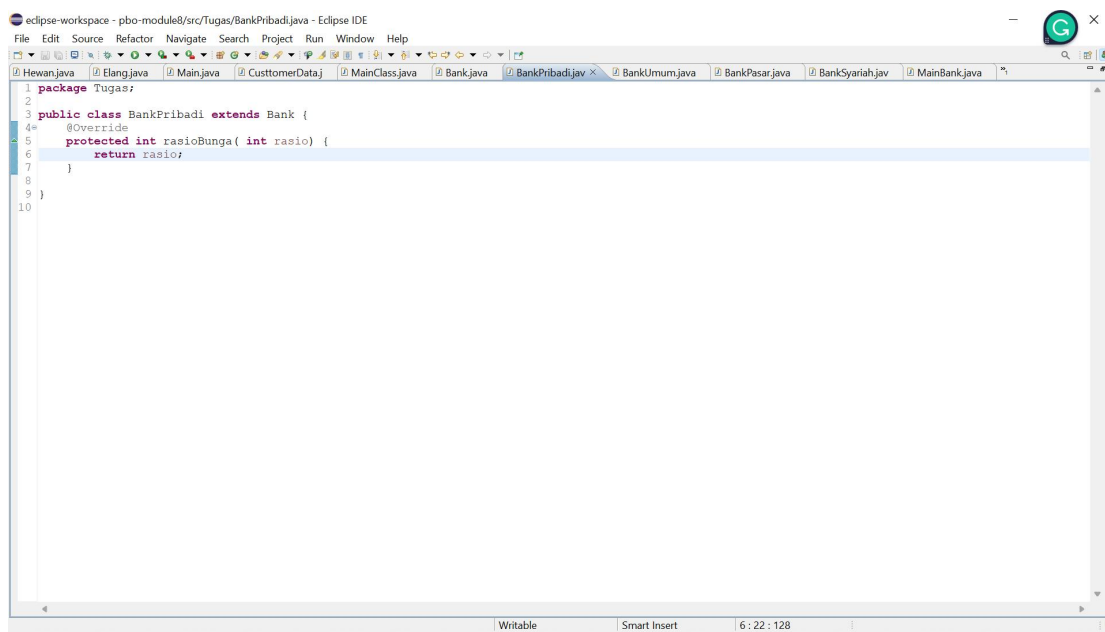
Bank





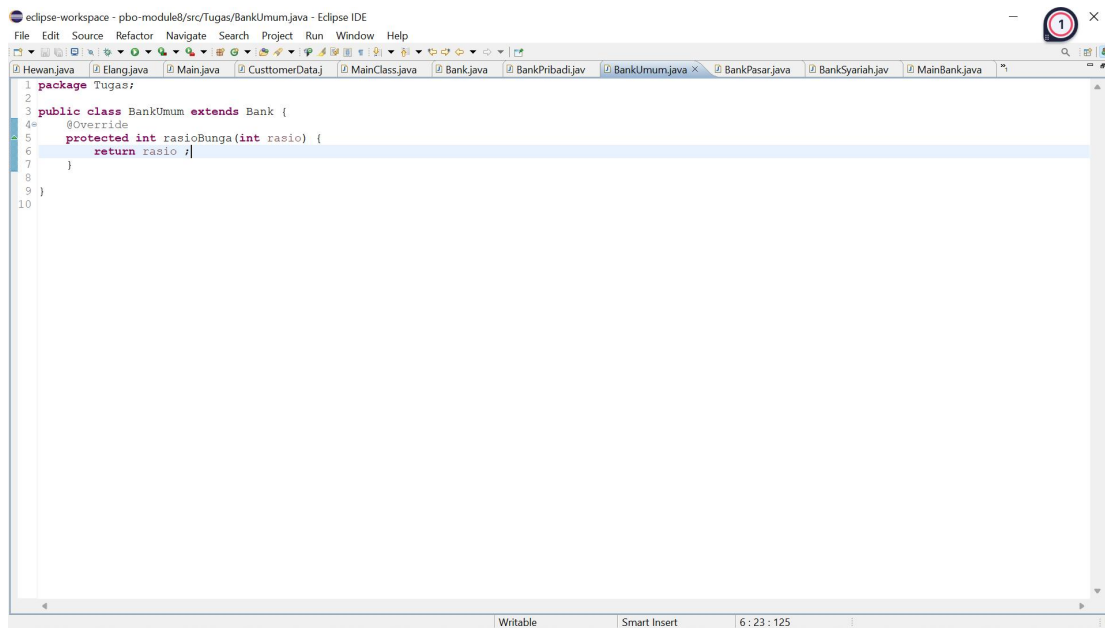
```
1 package Tugas;
2
3 public class Bank {
4     protected int rasioBunga(int rasio) {
5         return rasio;
6     }
7 }
8
9 }
```

## BankPribadi



```
1 package Tugas;
2
3 public class BankPribadi extends Bank {
4     @Override
5     protected int rasioBunga( int rasio) {
6         return rasio;
7     }
8 }
9
10 }
```

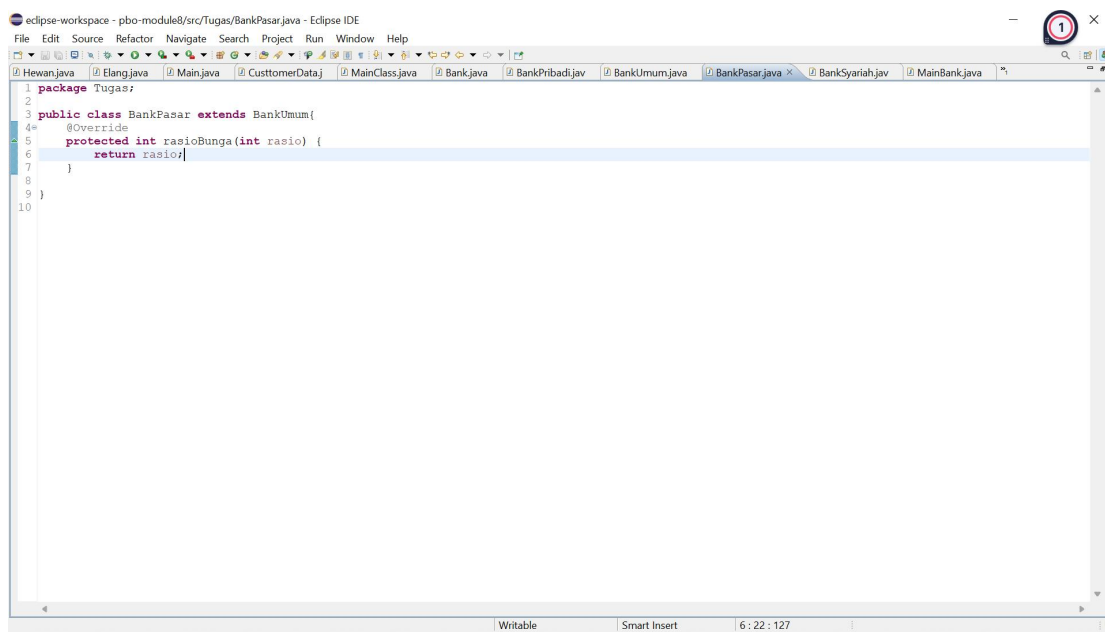
## BankUmum



The screenshot shows the Eclipse IDE interface with the file `BankUmmum.java` open. The package is `Tugas7`. The class `BankUmmum` extends `Bank`. It has a method `rasioBunga` that returns the `rasio` value.

```
1 package Tugas7;
2
3 public class BankUmmum extends Bank {
4     @Override
5     protected int rasioBunga(int rasio) {
6         return rasio;
7     }
8 }
9
10
```

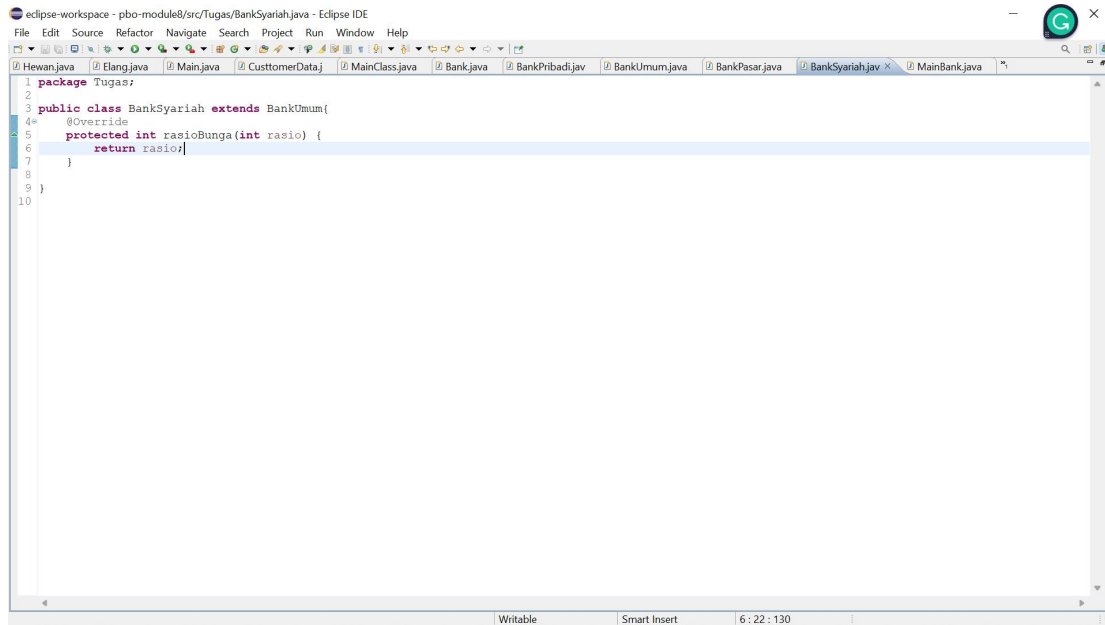
## BankPasar



The screenshot shows the Eclipse IDE interface with the file `BankPasar.java` open. The package is `Tugas7`. The class `BankPasar` extends `BankUmmum`. It has a method `rasioBunga` that returns the `rasio` value.

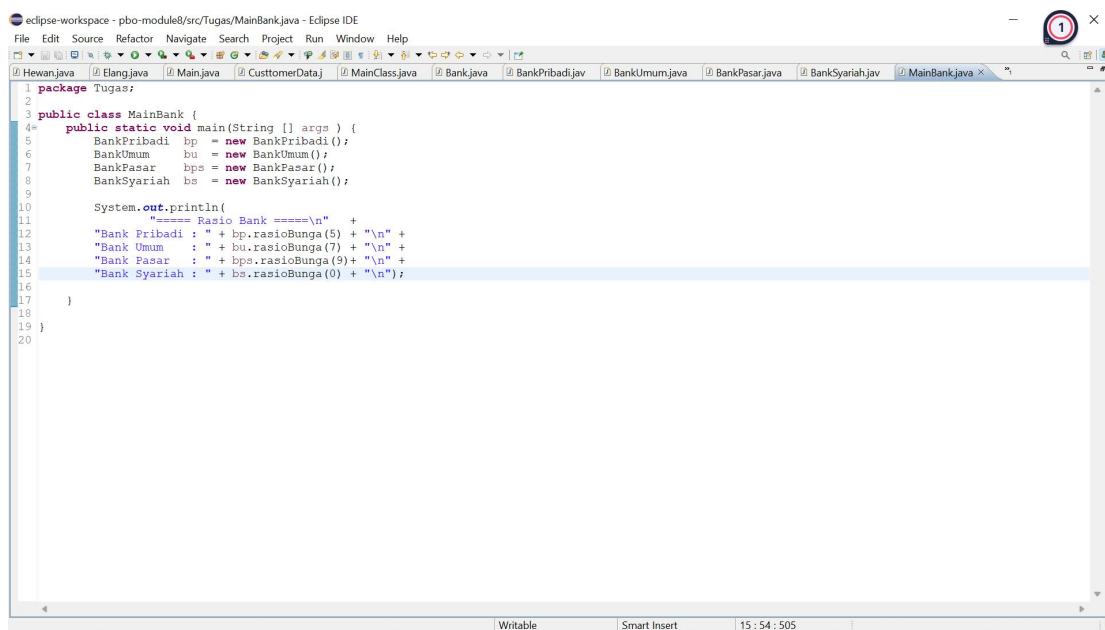
```
1 package Tugas7;
2
3 public class BankPasar extends BankUmmum {
4     @Override
5     protected int rasioBunga(int rasio) {
6         return rasio;
7     }
8 }
9
10
```

## BankSyariah



```
1 package Tugas;
2
3 public class BankSyariah extends BankUmmum{
4     @Override
5     protected int rasioBunga(int rasio) {
6         return rasio;
7     }
8 }
9
10
```

## MainBank



```
1 package Tugas;
2
3 public class MainBank {
4     public static void main(String [] args ) {
5         BankPribadi bp = new BankPribadi();
6         BankUmmum bu = new BankUmmum();
7         BankPasar bps = new BankPasar();
8         BankSyariah bs = new BankSyariah();
9
10        System.out.println(
11            "==== Rasio Bank =====\n" +
12            "Bank Pribadi : " + bp.rasioBunga(5) + "\n" +
13            "Bank Umum : " + bu.rasioBunga(7) + "\n" +
14            "Bank Pasar : " + bps.rasioBunga(9) + "\n" +
15            "Bank Syariah : " + bs.rasioBunga(0) + "\n");
16    }
17 }
18
19
20
```

OUTPUT:

