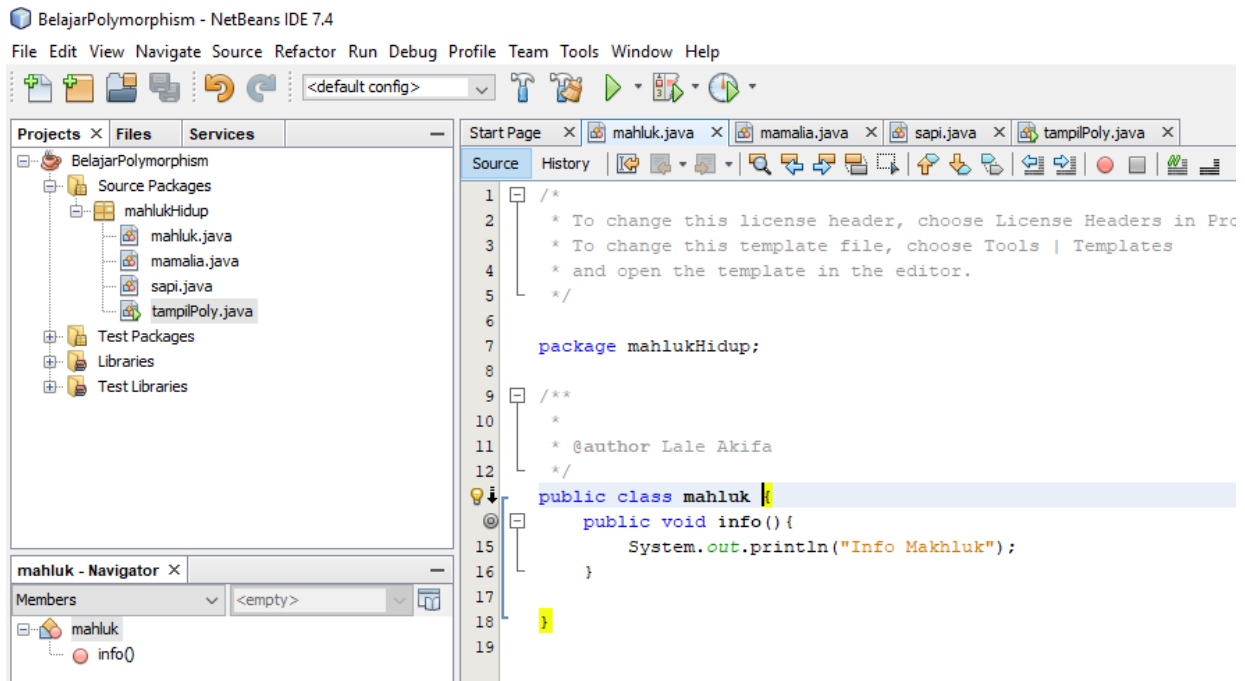


## LATIHAN KASUS POLYMORPHISM (3 KASUS)

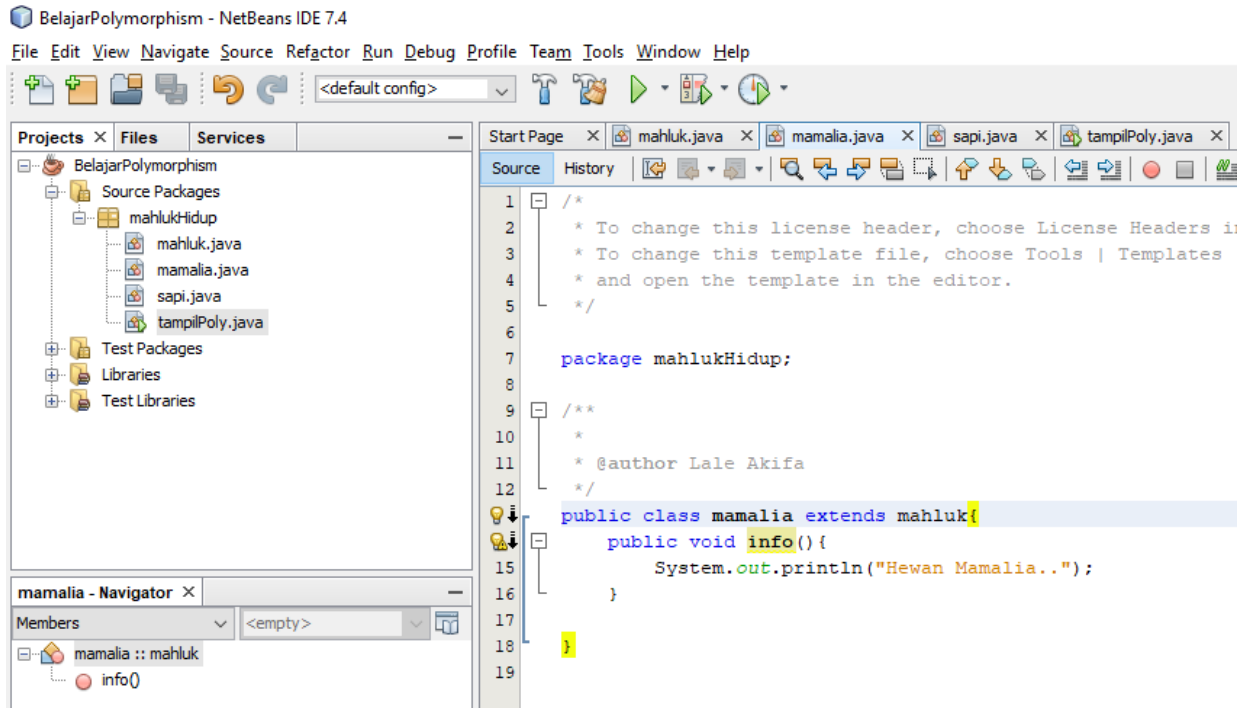
### 1. MahlukHidup

- Class mahluk
- Class mamalia
- Class sapi
- Class poly (tampil object)

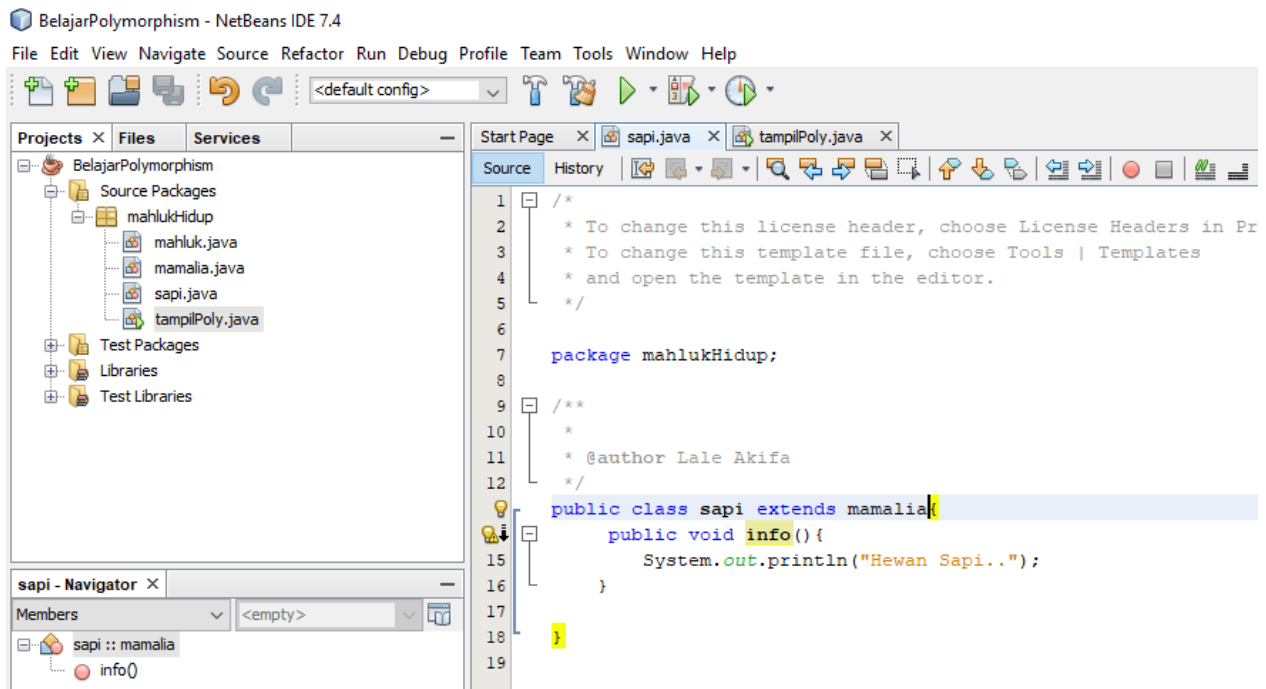
- Class mahluk seperti gambar berikut



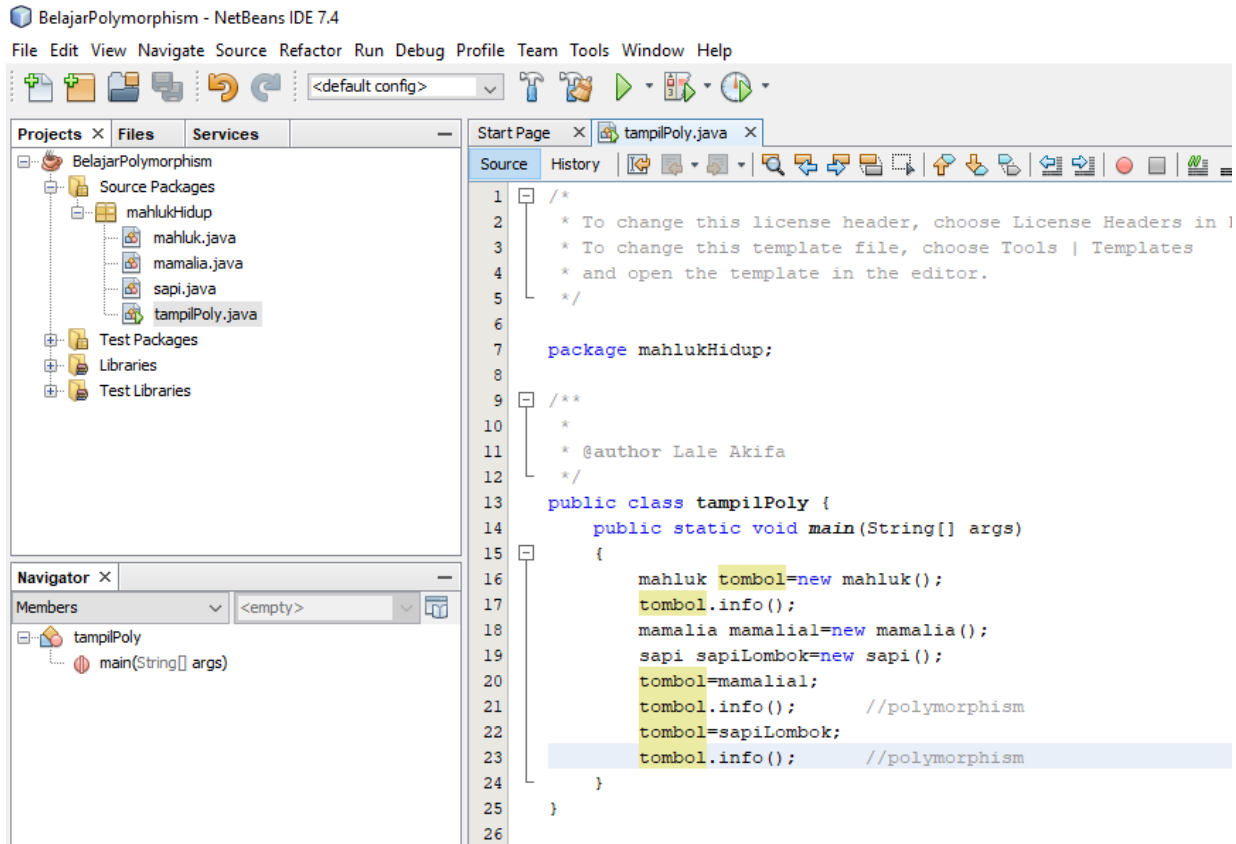
## b. Class mamalia



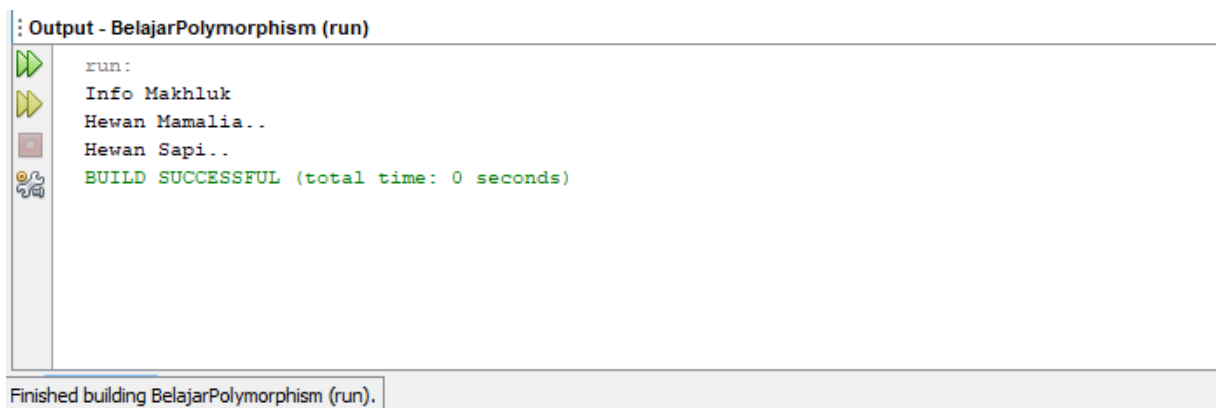
## c. Class sapi



#### d. Class tampilPoly



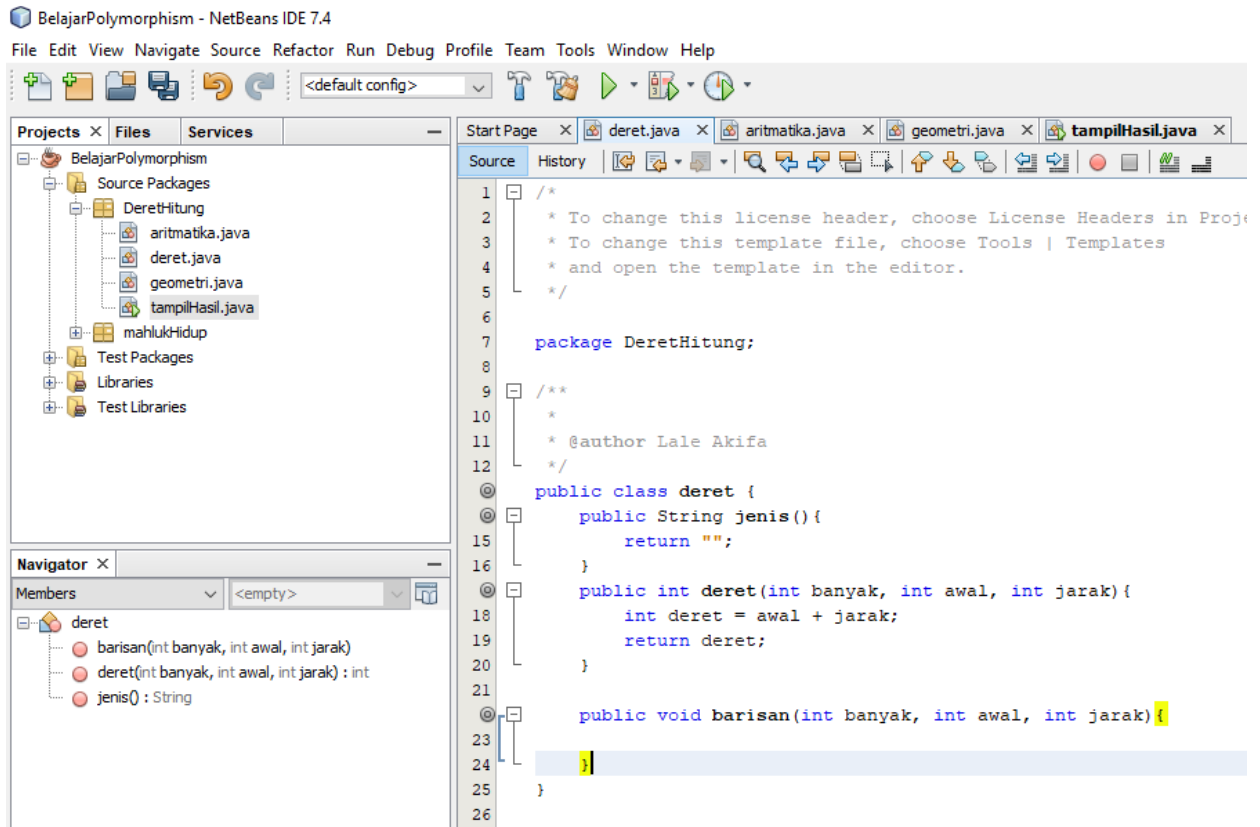
Hasil :



## 2. deretHitung

- a. Class deret
- b. Class aritmatika
- c. Class geometri
- d. Class tampilHasil

a. Class deret seperti gambar berikut :



## b. Class aritmatika

BelajarPolymorphism - NetBeans IDE 7.4

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

The screenshot displays the NetBeans IDE 7.4 interface. The main editor window shows the source code of the 'aritmatika.java' file, which is part of the 'DeretHitung' package. The code defines a class 'aritmatika' that extends the 'deret' class. The 'aritmatika' class has three methods: 'jenis()' which returns the string 'aritmatika', 'deret()' which calculates the sum of a sequence, and 'barisan()' which prints the sequence. The 'Projects' window on the left shows the project structure, including the 'DeretHitung' package and its sub-packages. The 'jenis - Navigator' window at the bottom shows the class hierarchy, with 'aritmatika' extending 'deret'.

```
6
7 package DeretHitung;
8
9 /**
10  *
11  * @author Lale Akifa
12  */
13 public class aritmatika extends deret{
14     @Override
15     public String jenis(){
16         return "aritmatika";
17     }
18     @Override
19     public int deret(int banyak, int awal, int jarak){
20         for(int a=1; a<=banyak; a++){
21             awal += a * jarak;
22         }
23         return awal-jarak;
24     }
25     @Override
26     public void barisan(int banyak, int awal, int jarak){
27         for(int a=1; a<=banyak; a++){
28             awal = a*jarak;
29             System.out.print(awal + " ");
30         }
31     }
32 }
33
```

jenis - Navigator

Members

- aritmatika :: deret
  - barisan(int banyak, int awal, int jarak)
  - deret(int banyak, int awal, int jarak) : int
  - jenis() : String

### c. Class geometri

BelajarPolymorphism - NetBeans IDE 7.4

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

<default config>

Projects Files Services

BelajarPolymorphism

- Source Packages
  - DeretHitung
    - aritmatika.java
    - deret.java
    - geometri.java
    - tampilHasil.java
  - mahlukHidup
- Test Packages
- Libraries
- Test Libraries

Navigator

Members

geometri :: deret

- barisan(int banyak, int awal, int rasio)
- deret(int banyak, int awal, int rasio) : int
- jenis() : String

Source

```
6
7 package DeretHitung;
8
9 import static java.lang.Math.pow;
10
11 /**
12  *
13  * @author Lale Akifa
14  */
15 public class geometri extends deret{
16     @Override
17     public String jenis(){
18         return "Geometri";
19     }
20     @Override
21     public int deret(int banyak, int awal, int rasio){
22         int deret = (int) (awal * ((1-pow(rasio,banyak))/(1-rasio)));
23         return deret;
24     }
25     @Override
26     public void barisan(int banyak, int awal, int rasio){
27         for(int a=1; a<= banyak; a++){
28             int awall = (int) (awal * pow(rasio, a-1));
29             System.out.print(awall + " ");
30         }
31     }
32 }
33
```

#### d. Class tampilHasil

BelajarPolymorphism - NetBeans IDE 7.4

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

<default config>

Projects Files Services Start Page **tampilHasil.java**

Source Packages  
DeretHitung  
aritmatika.java  
deret.java  
geometri.java  
tampilHasil.java  
mahlukhidup  
Test Packages  
Libraries  
Test Libraries

Navigator  
Members  
tampilHasil  
main(String[] args)

```
14  */
15  public class tampilHasil {
16      public static void main(String[] args) {
17          Scanner input = new Scanner(System.in);
18          deret A = new aritmatika();
19          deret G = new geometri();
20
21          do{
22              System.out.println("\n--Deret--");
23              System.out.println("1. Aritmatika"
24                  + "\n2. Geometri"
25                  + "\n3. Exit");
26              System.out.print("Masukan pilihan : ");
27              int pil = input.nextInt();
28
29              switch(pil){
30                  case 1 : {
31                      System.out.println("----"+A.jenis()+"----");
32                      System.out.print("masukan banyak deret : ");
33                      int banyak = input.nextInt();
34                      System.out.print("masukan Angka awal : ");
35                      int awal = input.nextInt();
36                      System.out.print("masukan jarak bilangan : ");
37                      int jarak = input.nextInt();
38                      System.out.println("Jumlah Deret = " + A.deret(banyak, awal, jarak));
39                      System.out.print("Basarisannya Adalah : ");
40                      A.barisan(banyak, awal, jarak);
41
42                  }
43                  break;
44
45                  case 2 : {
46                      System.out.println("-----"+G.jenis()+"-----");
47                      System.out.print("masukan banyak deret : ");
48                      int banyak = input.nextInt();
49                      System.out.print("masukan Angka awal : ");
50                      int awal = input.nextInt();
51                      System.out.print("masukan rasio bilangan : ");
52                      int rasio = input.nextInt();
53                      System.out.println("Jumlah Deret = " + G.deret(banyak, awal, rasio));
54                      System.out.print("Basarisannya Adalah : ");
55                      G.barisan(banyak, awal, rasio);
56
57                  }
58                  break;
59
60                  case 3 :
61                      System.out.println("----EXIT----");
62                      System.exit(0);
63
64              }
65          }while(true);
66      }
67  }
```

Hasil :

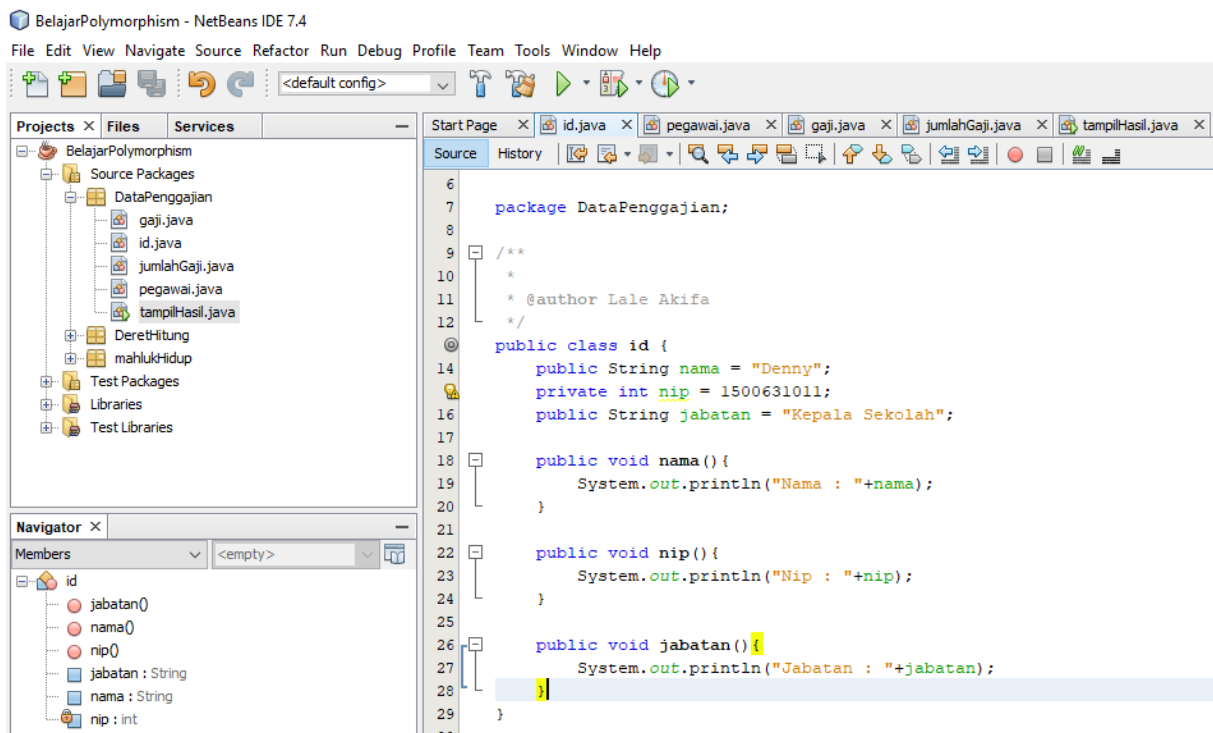
```
Output - BelajarPolymorphism (run) #4

--Deret--
1. Aritmatika
2. Geometri
3. Exit
Masukan pilihan : 1
----aritmatika----
masukan banyak deret : 5
masukan Angka awal : 2
masukan jarak bilangan : 5
Jumlah Deret = 72
Basarisannya Adalah : 5 10 15 20 25
```

### 3. DataPenggajian

- a. Class ID
- b. Class Pegawai
- c. Class Gaji
- d. Class JumlahGaji
- e. Class tampilHasil

#### a. Class id





## b. Class Pegawai

BelajarPolymorphism - NetBeans IDE 7.4

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

The screenshot displays the NetBeans IDE 7.4 interface. The top menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, and Help. Below the menu bar is a toolbar with various icons. The main workspace is divided into three panes:

- Project Explorer (Left):** Shows the project structure for 'BelajarPolymorphism'. It includes 'Source Packages' (DataPenggajian), 'DeretHitung', 'mahlukHidup', 'Test Packages', 'Libraries', and 'Test Libraries'. The 'DataPenggajian' package contains files: gaji.java, id.java, jumlahGaji.java, pegawai.java, and tampilHasil.java.
- Navigator (Bottom Left):** Shows the 'pegawai' class with its members: pegawai(String nama, int gaji), infoGaji(): int, gaji: int, and nama: String.
- Source Editor (Right):** Displays the code for 'pegawai.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
7   package DataPenggajian;
8
9   /**
10    *
11    * @author Lale Akifa
12    */
13   public class pegawai {
14       public String nama;
15       private final int gaji;
16
17       public pegawai(String nama, int gaji) {
18           this.nama = nama;
19           this.gaji = gaji;
20       }
21
22       public int infoGaji() {
23
24           return gaji;
25       }
26   }
```

### c. Class Gaji

BelajarPolymorphism - NetBeans IDE 7.4

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

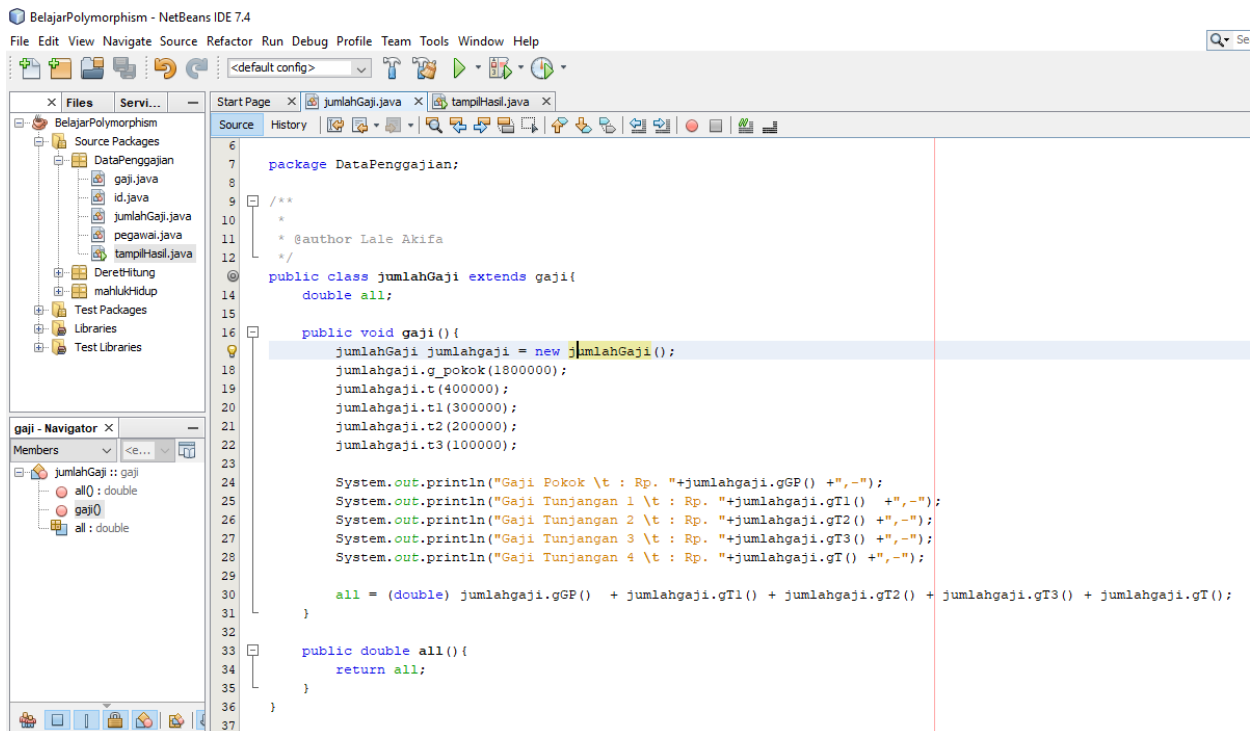
The screenshot shows the NetBeans IDE interface. The 'Projects' window on the left displays the project structure: BelajarPolymorphism > Source Packages > DataPenggajian > gaji.java. The 'gT3 - Navigator' window shows the members of the 'gaji' class: gGP(): int, gT(): int, gT1(): int, gT2(): int, gT3(): int, g\_pokok(int gp), t(int tj), t1(int tj1), t2(int tj2), t3(int tj3), g\_pokok: int, and t: int. The main editor window shows the source code for 'gaji.java'.

```
7 package DataPenggajian;
8
9 /**
10  *
11  * @author Lale Akifa
12  */
13
14 public class gaji extends id{
15     int g_pokok, t, t1, t2, t3;
16
17     public void g_pokok(int gp){
18         this.g_pokok = gp;
19     }
20
21     public int gGP(){
22         return g_pokok;
23     }
24
25     public void t (int tj){
26         this.t = tj;
27     }
28
29     public int gT(){
30         return t;
31     }
32
33     public void t1(int tj1){
34         this.t1 = tj1;
35     }
36
37     public int gT1(){
38         return t1;
39     }
40
41     public void t2(int tj2){
42         this.t2 = tj2;
43     }
44
45     public int gT2(){
46         return t2;
47     }
48
49     public void t3(int tj3){
50         this.t3 = tj3;
51     }
52
53     public int gT3(){
54         return t3;
55     }
56 }
```

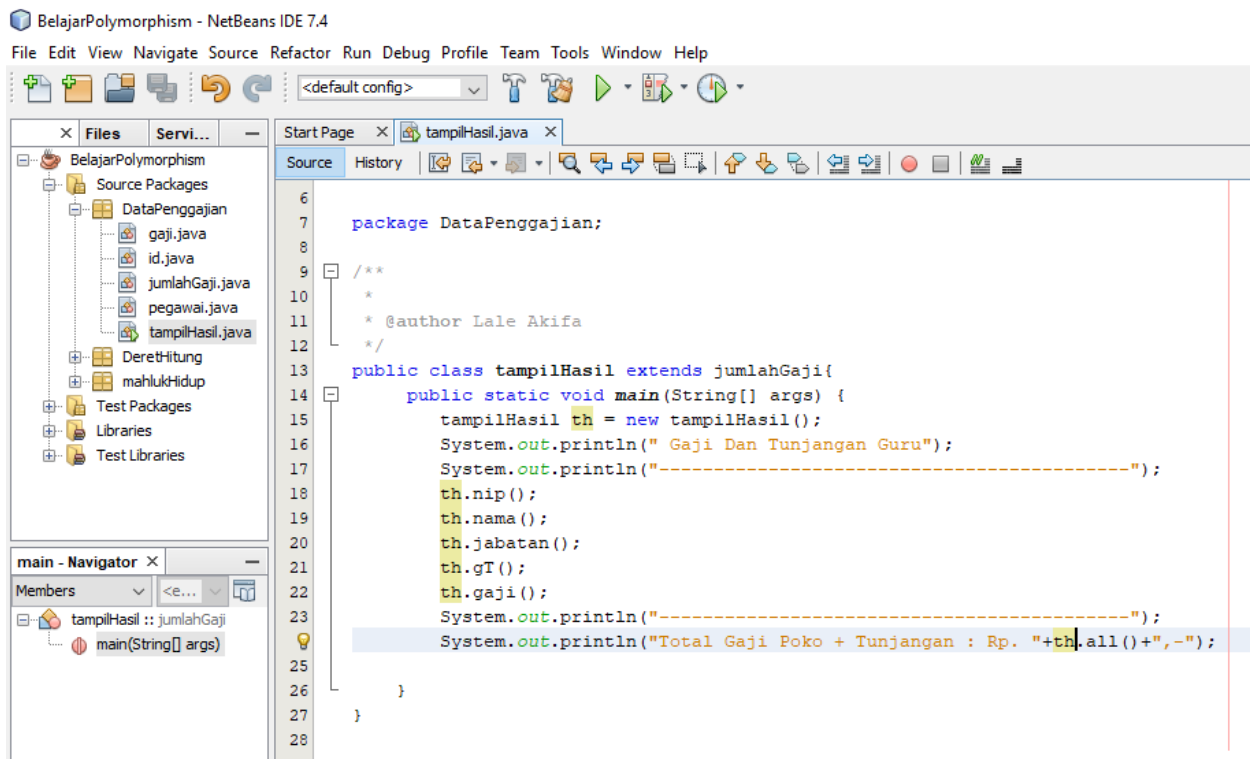
This block continues the code from the previous screenshot, showing lines 39 to 56. The code defines methods 't2', 'gT2', 't3', and 'gT3' for the 'gaji' class.

```
39
40     public void t2(int tj2){
41         this.t2 = tj2;
42     }
43
44     public int gT2(){
45         return t2;
46     }
47
48     public void t3(int tj3){
49         this.t3 = tj3;
50     }
51
52     public int gT3(){
53         return t3;
54     }
55 }
```

#### d. jumlahGaji



#### e. Class tampilHasil



Hasil :

```
Output - BelajarPolymorphism (run) #4
Gaji Dan Tunjangan Guru
-----
Nip : 1500631011
Nama : Denny
Jabatan : Kepala Sekolah
Gaji Pokok      : Rp. 1800000,-
Gaji Tunjangan 1 : Rp. 300000,-
Gaji Tunjangan 2 : Rp. 200000,-
Gaji Tunjangan 3 : Rp. 100000,-
Gaji Tunjangan 4 : Rp. 400000,-
-----

Total Gaji Poko + Tunjangan : Rp. 2800000.0,-
BUILD SUCCESSFUL (total time: 2 seconds)
```