

Nama : Amartya Bintang Wijat Ranti
NIM : L200180193
Kelas : E (Prak. PBO)

Tugas Modul 8

1. Lihat kembali Program. 4 mengenai Overriding, buatlah class Elang yang memiliki method jalan() namun implementasinya berbeda dari kedua class sebelumnya!

The screenshot shows an IDE with two windows. The top window displays the source code for the `Elang` class, which extends the `Hewan` class and overrides the `jalan()` method. The bottom window shows the output of the program, which includes the output of the `Hewan` and `Kucing` classes, followed by the output of the `Elang` class.

```
2  * To change this template, choose Tools | Templates
3  * and open the template in the editor.
4  */
5
6  /**
7   *
8   * @author hp
9   */
10 public class Elang extends Hewan{
11     @Override
12     public void jalan(){
13         System.out.println("Elang bisa terbang dengan sayap"+" dan berjalan dengan kaki")
14     }
15 }
16
```

Output - Modul8 (run) x Tasks

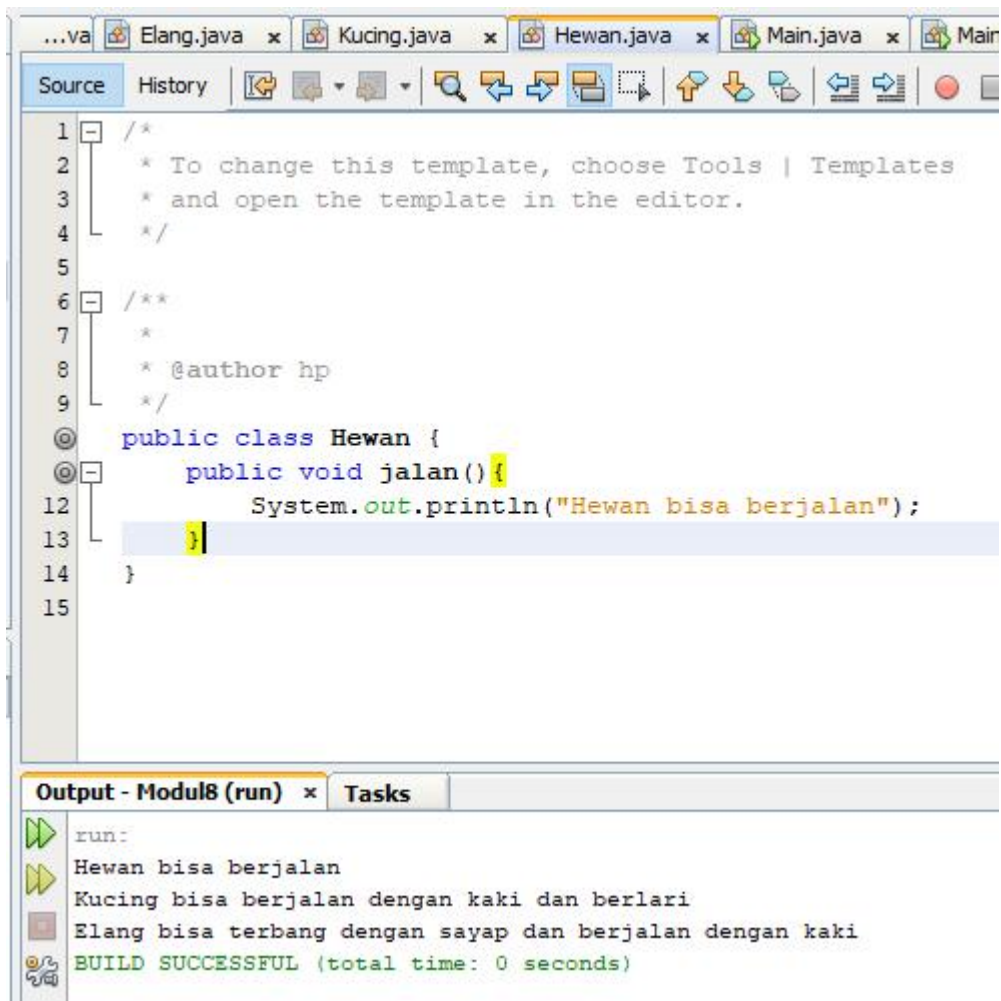
```
run:
Hewan bisa berjalan
Kucing bisa berjalan dengan kaki dan berlari
Elang bisa terbang dengan sayap dan berjalan dengan kaki
BUILD SUCCESSFUL (total time: 0 seconds)
```

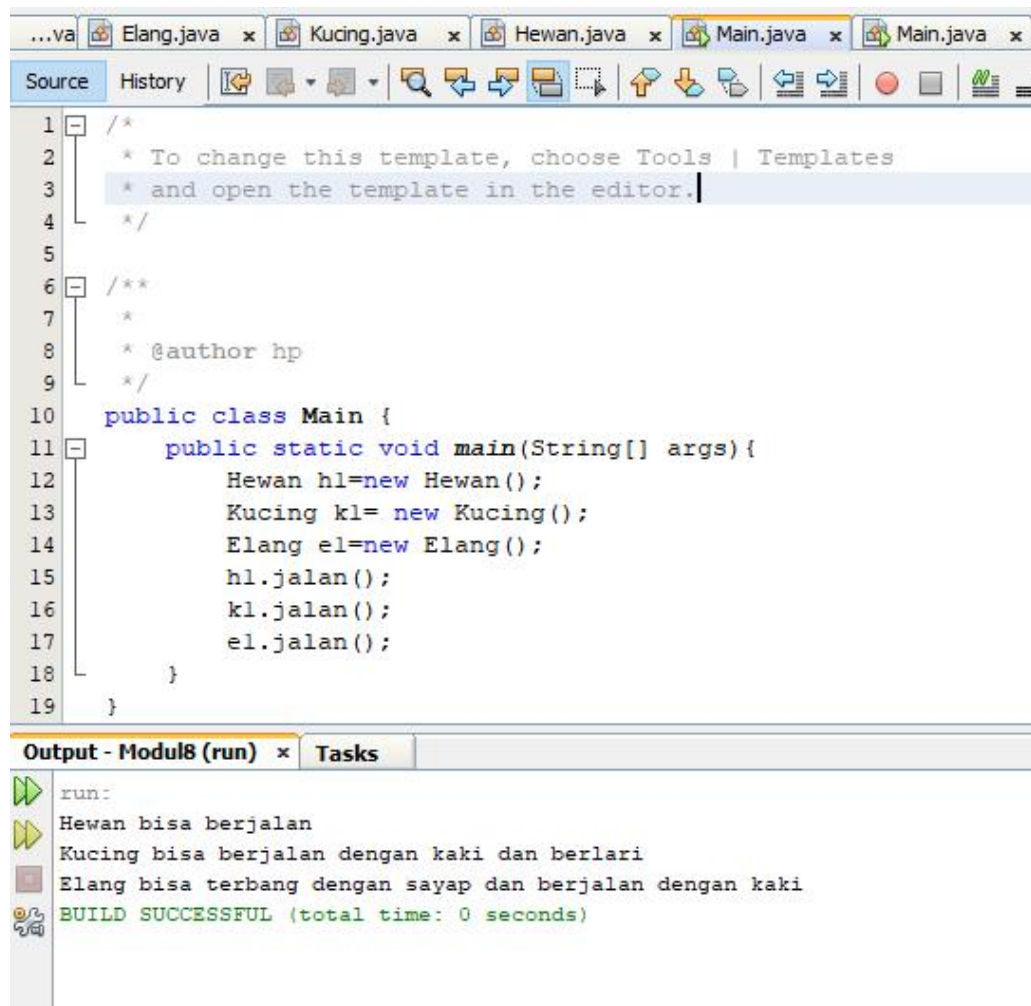
The second screenshot shows the source code for the `Kucing` class, which also extends the `Hewan` class and overrides the `jalan()` method.

```
1  /*
2  * To change this template, choose Tools | Templates
3  * and open the template in the editor.
4  */
5
6  /**
7   *
8   * @author hp
9   */
10 public class Kucing extends Hewan {
11     @Override
12     public void jalan(){
13         System.out.println("Kucing bisa berjalan dengan kaki"+" dan berlari");
14     }
15 }
16
```

Output - Modul8 (run) x Tasks

```
run:
Hewan bisa berjalan
Kucing bisa berjalan dengan kaki dan berlari
Elang bisa terbang dengan sayap dan berjalan dengan kaki
BUILD SUCCESSFUL (total time: 0 seconds)
```





The screenshot shows an IDE with a project named 'Modul8'. The 'Source' tab is active, displaying the code for 'Main.java'. The code defines three classes: 'Hewan', 'Kucing', and 'Elang', each with a 'jalan()' method. The 'Main' class has a 'main' method that creates instances of these classes and calls their 'jalan()' methods. The 'Output - Modul8 (run)' tab is also visible, showing the execution results.

```
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5
6  /**
7   *
8   * @author hp
9   */
10 public class Main {
11     public static void main(String[] args){
12         Hewan h1=new Hewan();
13         Kucing k1= new Kucing();
14         Elang e1=new Elang();
15         h1.jalan();
16         k1.jalan();
17         e1.jalan();
18     }
19 }
```

run:
Hewan bisa berjalan
Kucing bisa berjalan dengan kaki dan berlari
Elang bisa terbang dengan sayap dan berjalan dengan kaki
BUILD SUCCESSFUL (total time: 0 seconds)

2. **Buatlah class baru dengan nama CustomerData(), tambahkan variable nama, alamat, tanggal lahir, pekerjaan, dan gaji. Selanjutnya buatlah overloading constructor dari class tersebut.**

```
1  /*
2  * To change this template, choose Tools | Templates
3  * and open the template in the editor.
4  */
5  package modul8;
6
7  /**
8   *
9   * @author hp
10  */
11 public class CustomerData {
12     String nama;
13     String alamat;
14     int tanggalLahir;
15     String pekerjaan;
16     double gaji;
17
18     public CustomerData(String nama) {
19         this.nama = nama;
20         System.out.println(this.nama);
21     }
22     public CustomerData(String nama, String alamat) {
23         this.nama = nama;
24         System.out.println(this.nama);
25         this.alamat = alamat;
26         System.out.println(this.alamat);
27     }
28     public CustomerData(String nama, String alamat, int tanggalahir) {
29         this.nama=nama;
30
31         System.out.println(this.nama);
32         this.alamat = alamat;
33         System.out.println(this.alamat);
34     }
35     public CustomerData(String nama, String alamat, int tanggalahir, String pekerjaan) {
36         this.nama=nama;
37         this.alamat = alamat;
38         this.tanggalLahir=tanggalahir;
39     }
40     public CustomerData(String nama, String alamat, int tanggalahir, String pekerjaan, int gaji) {
41         this.nama=nama;
42         this.alamat = alamat;
43         this.tanggalLahir=tanggalahir;
44         this.pekerjaan=pekerjaan;
45         this.gaji=gaji;
46         System.out.println("Nama :"+ nama +
47             "\nAlamat : " + alamat +
48             "\nTanggal Lahir : " + tanggalahir +
49             "\nPekerjaan : " + pekerjaan +
50             "\nGaji : " + gaji + "\n\n");
51     }
52 }
```

3. **Buatlah class baru dengan method main() yang disertai 10 object customer dari class CustomerData().**

```

1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5  package modul8;
6
7  /**
8   *
9   * @author hp
10  */
11  public class Main {
12      public static void main(String [] args){
13          CustomerData c1= new CustomerData("Bintang", "Grobogan", 6112000, "PNS", 10000000);
14          CustomerData c2= new CustomerData("Dyah", "Semarang", 7112000, "Gubernur", 10000000);
15          CustomerData c3= new CustomerData("Mahadika", "Blora", 6102000, "Teknisi", 10000000);
16          CustomerData c4= new CustomerData("Elin", "Boyolali", 9122000, "Wiraswasta", 10000000);
17          CustomerData c5= new CustomerData("Ayuk", "Salatiga", 512000, "karyawan", 10000000);
18          CustomerData c6= new CustomerData("Finka", "Rembang", 27102000, "Hakim", 10000000);
19          CustomerData c7= new CustomerData("Rizal", "Grobogan", 6112000, "Dosen", 10000000);
20          CustomerData c8= new CustomerData("Hanif", "Bandung", 7-5-1999, "Model", 10000000);
21          CustomerData c9= new CustomerData("Arya", "Jakarta", 1122000, "Pelajar", 10000000);
22          CustomerData c0= new CustomerData("Ipul", "Surabaya", 10122000, "Dokter", 10000000);
23      }
24  }
25
26

```

```

run:
Nama :Bintang
Alamat : Grobogan
Tanggal Lahir :6112000
Pekerjaan :PNS
Gaji :10000000

Nama :Dyah
Alamat : Semarang
Tanggal Lahir :7112000
Pekerjaan :Gubernur
Gaji :10000000

Nama :Mahadika
Alamat : Blora
Tanggal Lahir :6102000
Pekerjaan :Teknisi
Gaji :10000000

Nama :Elin
Alamat : Boyolali
Tanggal Lahir :9122000
Pekerjaan :Wiraswasta
Gaji :10000000

```

4. **Buatlah class berdasarkan diagram UML berikut ini! Terapkan teknik polimorphism dan tampilkan hasil output program.**


```
...va Elang.java x Kucing.java x Hewan.java x Main.java x Main.java x
Source History
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11  public class Bank {
12      protected int rb(int rb){
13          System.out.println("Bank : "+ rb);
14          return rb;
15      }
16  }
17
```

```
...va Elang.java x Kucing.java x Hewan.java x Main.java x Main.java x
Source History
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11  public class BankPribadi {
12      protected int rb(int rb){
13          System.out.println("Bank Pribadi : "+ rb);
14          return rb;
15      }
16  }
17
```






```
...va Elang.java x Kucing.java x Hewan.java x Main.java x Main.java x
Source History
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11   public class BankUmun {
12       protected int rb(int rb){
13           System.out.println("Bank Umun : "+ rb);
14           return rb;
15       }
16   }
17
```

```
...va Hewan.java x Main.java x Main.java x CustomerData.java x Ba
Source History
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11   public class BankPasar {
12       protected int rb(int rb){
13           System.out.println("Bank Pasar : "+ rb);
14           return rb;
15       }
16   }
17
```

```
...va Main.java x Main.java x CustomerData.java x Bank.java x BankPribadi.j
Source History
1  /*
2   * To change this template, choose Tools | Templates
3   * and open the template in the editor.
4   */
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11   public class BankSyariah {
12       protected int rb(int rb){
13           System.out.println("Bank Syariah : "+ rb);
14           return rb;
15       }
16   }
17
```

```
...ava Main.java x CustomerData.java x Bank.java x BankPribadi.j
Source History
5   package modul8;
6
7   /**
8    *
9    * @author hp
10   */
11   public class Demo {
12       public static void main (String[] args){
13           Bank b1= new Bank();
14           b1.rb(5);
15           BankPasar b2 = new BankPasar();
16           b2.rb(10);
17           BankPribadi b3 = new BankPribadi();
18           b3.rb(15);
19           BankSyariah b4 = new BankSyariah();
20           b4.rb(20);
21       }
22   }
23
```

```
Output - Modul8 (run) x Tasks
run:
Bank : 5
Bank Pasar : 10
Bank Pribadi : 15
Bank Syariah : 20
BUILD SUCCESSFUL (total time: 2 seconds)
```


Output - Modul8 (run) x		Tasks
	run:	
	Bank : 5	
	Bank Pasar : 10	
	Bank Pribadi : 15	
	Bank Syariah : 20	
	BUILD SUCCESSFUL (total time: 2 seconds)	