

PEMROGRAMAN BERBASIS OBJEK
“Polimorfisme”



DOSEN PEMBIMBING
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PROGRAM STUDI D-IV TEKNIK INFORMATIKA
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Tugas Pertemuan 11

Exercise 1

- Pegawai.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  package Exercisel;
8
9  /**
10   *
11   * @author boy
12   */
13  public class Pegawai {
14      protected String nama;
15      protected int gaji;
16
17      public Pegawai() {
18      }
19
20      public Pegawai(String nama, int gaji) {
21          this.nama = nama;
22          this.gaji = gaji;
23      }
24
25      public int getGaji() {
26          return gaji;
27      }
28
29  }
```

- Manager.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  package Exercisel;
8
9  /**
10   *
11   * @author boy
12   */
13  public class Manager extends Pegawai{
14      private int tunjangan;
15
16      Manager( String nama, int gaji, int tunjangan) {
17          super(nama, gaji);
18          this.tunjangan = tunjangan;
19      }
20
21      @Override
22      public int getGaji() {
23          return gaji;
24      }
25
26      public int getTunjangan() {
27          return tunjangan;
28      }
29
30  }
```

- Programmer.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  package Exercise1;
8
9  /**
10   *
11   * @author boy
12   */
13  public class Programmer extends Pegawai{
14      private int bonus;
15
16      public Programmer(String nama, int gaji, int bonus) {
17          super(nama, gaji);
18          this.bonus = bonus;
19      }
20
21      public int getGaji() {
22          return gaji;
23      }
24
25      public int getBonus() {
26          return bonus;
27      }
28  }
29  }
```

- Bayaran.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  package Exercise1;
8
9  /**
10   *
11   * @author boy
12   */
13  public class Bayaran {
14
15      public int hitungBayaran(Pegawai pg) {
16          int uang = pg.getGaji();
17          if (pg instanceof Manager) {
18              uang += ((Manager) pg).getTunjangan();
19          } else if (pg instanceof Programmer) {
20              uang += ((Programmer) pg).getBonus();
21          }
22          return uang;
23      }
24  }
```

- TestBayaran.java

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6   package Exercisel1;
7
8   /**
9    *
10   * @author boy
11   */
12   public class TestBayaran {
13
14       public static void main(String[] args) {
15           Manager man = new Manager("Agus", 800, 50);
16           Programmer prog = new Programmer("Budi", 600, 30);
17           Bayaran hr = new Bayaran();
18
19           System.out.println("Bayaran manager: " + hr.hitungBayaran(man));
20           System.out.println("Bayaran programmer: " + hr.hitungBayaran(prog));
21       }
22   }
```

- Output

```
run:
Bayaran manager: 850
Bayaran programmer: 630
BUILD SUCCESSFUL (total time: 0 seconds)
```

Exercise 2

- Elektronik.java

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package Exercise2;
7
8  /**
9   *
10  * @author boy
11  */
12  @public class Elektronik {
13
14      protected int voltase;
15
16      public Elektronik() {
17      }
18
19      public int getVoltase() {
20          return this.voltase = 220;
21      }
22
23  }
```

- TelevisiJadul.java

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package Exercise2;
7
8  /**
9   *
10  * @author boy
11  */
12  public class TelevisiJadul extends Elektronik{
13
14      private String modeInput;
15
16      public TelevisiJadul() {
17      }
18
19      public String getModeInput() {
20          return this.modeInput = "DVI";
21      }
22
23  }
```

- TelevisiModern.java

```

1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package Exercise2;
7
8  /**
9   *
10  * @author boy
11  */
12  public class TelevisiModern extends Elektronik{
13
14      private String modeInput;
15
16      public TelevisiModern() {
17      }
18
19      public String getModeInput() {
20          return this.modeInput = "HDMI";
21      }
22
23  }

```

- Manusia.java

```

1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package Exercise2;
7
8  /**
9   *
10  * @author boy
11  */
12  public class Manusia {
13
14      public void nyalakanPerangkat(Elektronik perangkat){
15          if(perangkat instanceof TelevisiJadul){
16              System.out.println("Nyalakan televisi jadul dengan input: " + ((TelevisiJadul)perangkat).getModeInput());
17              System.out.println("Voltase televisi: " + perangkat.getVoltase());
18          }
19          else if (perangkat instanceof TelevisiModern){
20              System.out.println("Nyalakan televisi jadul dengan input: " + ((TelevisiModern)perangkat).getModeInput());
21              System.out.println("Voltase televisi: " + perangkat.getVoltase());
22          }
23      }
24  }
25

```

- TestElektronik.java

```

1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package Exercise2;
7
8  /**
9   *
10  * @author boy
11  */
12  public class TestElektronik {
13      public static void main(String[] args) {
14          Manusia indro = new Manusia();
15          TelevisiJadul tvjadul = new TelevisiJadul();
16          TelevisiModern tvmodern = new TelevisiModern();
17
18          indro.nyalakanPerangkat(tvjadul);
19          indro.nyalakanPerangkat(tvmodern);
20      }
21  }
22

```

- Output

```
run:
Nyalakan televisi jadul dengan input: DVI
Voltase televisi: 220
Nyalakan televisi jadul dengan input: HDMI
Voltase televisi: 220
BUILD SUCCESSFUL (total time: 0 seconds)
```