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## Exercise 1

### 1. Manajer

```
1 package excercise1;
2 public class Manajer extends Pegawai{
3     private int tunjangan;
4
5     public Manajer(String nama, int gaji, int tunjangan) {
6         super(nama, gaji);
7         this.tunjangan = tunjangan;
8     }
9
10    public int getTunjangan() {
11        return tunjangan;
12    }
13
14    public int getGaji() {
15        return super.getGaji();
16    }
17
18 }
```

### 2. Pegawai

```
1 package excercise1;
2 public class Pegawai {
3     protected String nama;
4     protected int gaji;
5
6     public Pegawai() {
7     }
8
9     public Pegawai(String nama, int gaji) {
10        this.nama = nama;
11        this.gaji = gaji;
12    }
13
14    public int getGaji() {
15        return gaji;
16    }
17
18 }
```



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### 3. Programmer

```
1 package excercise1;
2 public class Programmer extends Pegawai{
3     private int bonus;
4
5     public Programmer(String nama, int gaji,int bonus) {
6         super(nama, gaji);
7         this.bonus = bonus;
8     }
9
10    public int getBonus() {
11        return bonus;
12    }
13
14    public int getGaji() {
15        return super.getGaji();
16    }
17
18 }
```

### 4. Bayaran

```
1 package excercise1;
2 public class Bayaran {
3     public int hitungBayaran(Pegawai pg){
4         int uang = pg.getGaji();
5         if(pg instanceof Manajer){
6             uang +=((Manajer)pg).getTunjangan();
7         }else if(pg instanceof Programmer){
8             uang +=((Programmer)pg).getBonus();
9         }
10        return uang;
11    }
12 }
```

### 5. TestBayaran

```
1 package excercise1;
2 public class TestBayaran {
3     public static void main(String[] args) {
4         Manajer man=new Manajer("Agus",800,50);
5         Programmer prog=new Programmer("Budi",600,30);
6         Bayaran hr=new Bayaran();
7
8         System.out.println("Bayaran Manajer : "+hr.hitungBayaran(man));
9         System.out.println("Bayaran Programmer : "+hr.hitungBayaran(prog));
10    }
11 }
```

### 6. Output

```
run:
Bayaran Manajer : 850
Bayaran Programmer : 630
BUILD SUCCESSFUL (total time: 0 seconds)
```



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## Exercise 2

### 1. Elektronik

```
1 package excercise2;
2 public class Elektronik {
3     protected int voltase;
4
5     public Elektronik() {
6         this.voltase=220;
7     }
8
9     public int getVoltase() {
10         return voltase;
11     }
12
13 }
```

### 2. TelevisiJadul

```
1 package excercise2;
2 public class TelevisiJadul extends Elektronik{
3     private String modelInput;
4
5     public TelevisiJadul() {
6         this.modelInput="DVI";
7     }
8
9     public String getModelInput() {
10         return modelInput;
11     }
12 }
```

### 3. TelevisiModern

```
1 package excercise2;
2 public class TelevisiModern extends Elektronik{
3     private String modelInput;
4
5     public TelevisiModern() {
6         this.modelInput="HDMI";
7     }
8
9     public String getModelInput() {
10         return modelInput;
11     }
12 }
```



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#### 4. Manusia

```
1 package excercise2;
2 public class Manusia {
3     public void nyalakanPerangkat(Elektronik pkt){
4         String info1="Nyalakan televisi ";
5         String info2=" dengan Input: ";
6         String info3="\nVoltase televisi: ";
7         if(pkt instanceof TelevisiJadul){
8             info1+="jadul";
9             info2+=((TelevisiJadul)pkt).getModelInput();
10            info3+=((TelevisiJadul)pkt).getVoltase();
11        }else if(pkt instanceof TelevisiModern){
12            info1+="modern";
13            info2+=((TelevisiModern)pkt).getModelInput();
14            info3+=((TelevisiModern)pkt).getVoltase();
15        }
16        System.out.println(info1+info2+info3);
17    }
18 }
```

#### 5. TestElektronik

```
1 package excercise2;
2 public class TestElektronik {
3     public static void main(String[] args) {
4         Manusia indro=new Manusia();
5         TelevisiJadul tvjadul=new TelevisiJadul();
6         TelevisiModern tvmodern=new TelevisiModern();
7
8         indro.nyalakanPerangkat(tvjadul);
9         indro.nyalakanPerangkat(tvmodern);
10    }
11 }
```

#### 6. Output

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