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Exercise 1

Class Pegawai.java :

```java
package exercise_1;

public class Pegawai {
    protected String nama;
    protected int gaji;

    Pegawai() {

    }

    Pegawai(String nama, int gaji) {
        this.nama = nama;
        this.gaji = gaji;
    }

    public int getGaji() {
        return this.gaji;
    }
}
```

Class Manajer.java :

```java
package exercise_1;

public class Manajer extends Pegawai {

    private int tunjangan;

    Manajer(String nama, int gaji, int tunjangan) {
        super(nama, gaji);
        this.tunjangan = tunjangan;
    }

    public int getGaji() {
        return super.getGaji();
    }

    public int getTunjangan() {
        return this.tunjangan;
    }
}
```

Class Programmer.java :

```java
package exercise_1;

public class Programmer extends Pegawai {

    private int bonus;

    Programmer(String nama, int gaji, int bonus) {
        super(nama, gaji);
        this.bonus = bonus;
    }

    public int getGaji() {
        return super.getGaji();
    }

    public int getBonus() {
        return this.bonus;
    }

}
```

Class Bayaran.java :

```java
package exercise_1;

public class Bayaran {

    public int hitungBayaran(Pegawai pg) {
        int uang = pg.getGaji();

        if (pg instanceof Manajer) {
            uang += ((Manajer) pg).getTunjangan();
        } else if (pg instanceof Programmer) {
            uang += ((Programmer) pg).getBonus();
        }

        return uang;
    }

}
```

Class TestBayaran.java :

```java
package exercise_1;

public class TestBayaran {

    Run | Debug
    public static void main(String[] args) {

        Manajer man = new Manajer("Agus", 800, 50);
        Programmer prog = new Programmer("Budi", 600, 30);
        Bayaran hr = new Bayaran();

        System.out.println("Bayaran untuk manajer: " + hr.hitungBayaran(man));
        System.out.println("Bayaran untuk programmer: " + hr.hitungBayaran(prog));
    }
}
```

Output :

```
PS C:\Users\STRIX\OneDrive\Documents\NetBeansProjects\teori_pbo_11>  & 'c:\
rogram Files\Java\jdk\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessage
pbo_11\bin' 'exercise_1.TestBayaran'
Bayaran untuk manajer: 850
Bayaran untuk programmer: 630
PS C:\Users\STRIX\OneDrive\Documents\NetBeansProjects\teori_pbo_11>
```

Exercise 2

Class Elektronik.java :

```java
package exercise_2;

public class Elektronik {
    protected int voltase;

    public Elektronik() {
        this.voltase = 220;
    }

    public int getVoltase() {
        return this.voltase;
    }
}
```

Class TelevisiJadul.java :

```java
package exercise_2;

public class TelevisiJadul extends Elektronik {

    private String modelInput;

    public TelevisiJadul() {
        this.modelInput = "DVI";
    }

    public String getModelInput() {
        return this.modelInput;
    }

}
```

Class TelevisiModern.java :

```java
public class TelevisiModern extends Elektronik {

    private String modelInput;

    public TelevisiModern() {
        this.modelInput = "HDMI";
    }

    public String getModelInput() {
        return this.modelInput;
    }

}
```

Class Manusia.java :

```java
public class Manusia {

    public void nyalakanPerangkat(Elektronik perangkat) {
        if (perangkat instanceof TelevisiJadul) {
            System.out.println("Nyalakan televisi jadul dengan input: " + ((TelevisiJadul) perangkat).getModelInput());
            System.out.println("Voltase televisi: " + perangkat.getVoltase());
        } else if (perangkat instanceof TelevisiModern) {
            System.out
                .println("Nyalakan televisi modern dengan input: " + ((TelevisiModern) perangkat).getModelInput());
            System.out.println("Voltase televisi: " + perangkat.getVoltase());
        }
    }

}
```

Class TestElektronik.java :

```java
public class TestElektronik {

    Run | Debug
    public static void main(String[] args) {
        Manusia indro = new Manusia();
        TelevisiJadul tvjadul = new TelevisiJadul();
        TelevisiModern tvmodern = new TelevisiModern();

        indro.nyalakanPerangkat(tvjadul);
        indro.nyalakanPerangkat(tvmodern);

    }
}
```

Output :

```
Bayaran untuk programmer: 650
PS C:\Users\STRIX\OneDrive\Documents\NetBeansProjects\teori_pbo_11>  c:; cd 'c:\Users\STRIX\OneDrive\Documents
de\extensions\vscjava.vscode-java-debug-0.36.0\scripts\launcher.bat' 'C:\Program Files\Java\jdk\bin\java.exe'
ng=UTF-8' '-cp' 'C:\Users\STRIX\OneDrive\Documents\NetBeansProjects\teori_pbo_11\bin' 'exercise_2.TestElektron
Nyalakan televisi jadul dengan input: DVI
Voltase televisi: 220
Nyalakan televisi modern dengan input: HDMI
Voltase televisi: 220
PS C:\Users\STRIX\OneDrive\Documents\NetBeansProjects\teori_pbo_11>
```