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## **Bangun\_Datar**

*Bangun\_Datar.java*

```
package tugas6.Bangun_Datar;
```

```
public abstract class BangunDatar {
```

```
    String warna;
```

```
    String getName(){
```

```
        return warna;
```

```
    }
```

```
    void setWarna(String warna){
```

```
        this.warna=warna;
```

```
    }
```

```
    abstract float getLuas();
```

```
}
```

*Lingkaran.java*

```
Package tugas6.Bangun_Datar;
```

```
public class Lingkaran extends BangunDatar{
```

```
    float jari_jari;
```

```

public Lingkaran(float jari_jari){
    this.jari_jari=jari_jari;
}

@Override
float getLuas() {
    return (float)Math.PI*jari_jari*jari_jari;
}
}

```

*Main.java*

```

Package tugas6.Bangun_Datar;

```

```

Public class Main {
    Public static void main(String[] args) {
        BangunDatar segitiga=new SegiTiga(12, 20);
        BangunDatar lingkaran=new Lingkaran(60);

        System.out.println("Luas dari bangun datar segitiga : "+segitiga.getLuas());
        System.out.println("Luas dari bangun datar luangkaran : "+lingkaran.getLuas());
    }
}

```

*SegiTiga.java*

```

Package tugas6.Bangun_Datar;

```

```

Public class SegiTiga extends BangunDatar{

    Private float alas;
    Private float tinggi;

```

```

    Public SegiTiga(float alas, float tinggi){
        This.alas=alas;
        This.tinggi=tinggi;
    }

    @Override
    Float getLuas(){
        Return (float)0.5*alas*tinggi;
    }
}

```

## **Laptopku**

*Laptop.java*

```
Package tugas6.Laptopku;
```

```

Public interface Laptop {
    Int MAX_VOL=100;
    Int MIN_VOL=0;

    Void powerOn();
    Void powerOff();
    Void volumeUp();
    Void volumeDown();
}

```

*LaptipUser.java*

```
Package tugas6.Laptopku;
```

```

Public class LaptopUser {
    Private Laptop laptop;

    Public LaptopUser(Laptop laptop){
        This.laptop=laptop;
    }

    Void turnOnLaptop(){
        This.laptop.powerOn();
    }

    Void turnOffLaptop(){
        This.laptop.powerOff();
    }

    Void makeLaptopLouder(){
        This.laptop.volumeUp();
    }

    Void makeLaptopSilence(){
        This.laptop.volumeDown();
    }
}

```

*Lenovo.java*

```

Package tugas6.Laptopku;

Public class Lenovo implements Laptop{
    Private int volume;
    Boolean is_power_on;
}

```

```
Public Lenovo(){  
    This.volume=50;  
}
```

```
@Override  
Public void powerOn(){  
    Is_power_on=true;  
    System.out.println("Laptop is On");  
    System.out.println("Lenovo ThinkPad");  
}
```

```
@Override  
Public void powerOff(){  
    Is_power_on=false;  
    System.out.println("Shutdown in process ...");  
}
```

```
@Override  
Public void volumeUp(){  
    If(is_power_on){  
        If(this.volume==MAX_VOL){  
            System.out.println("Volume is Full ");  
        }  
        Else{  
            This.volume+=10;  
            System.out.println("Volume is : "+getVolume());  
        }  
    }  
}
```

```
@Override
```

```

Public void volumeDown(){
    If(is_power_on){
        If(this.volume==MIN_VOL){
            System.out.println("Volume is 0%");
        }
        Else{
            This.volume-=10;
            System.out.println("Volume is : "+getVolume());
        }
    }
}

Public int getVolume(){
    Return this.volume;
}
}

```

*MacBook.java*

Package tugas6.Laptopku;

```

Public class MacBook implements Laptop{
    Private int volume;
    Boolean is_power_on;

    Public MacBook(){
        This.volume=50;
    }
}

```

@Override

```

Public void powerOn(){

```

```
    Is_power_on=true;
    System.out.println("Laptop is On");
    System.out.println("MacBook Air M1");
}
```

```
@Override
Public void powerOff(){
    Is_power_on=false;
    System.out.println("Shutdown in process ...");
}
```

```
@Override
Public void volumeUp(){
    If(is_power_on){
        If(this.volume==MAX_VOL){
            System.out.println("Volume is Full ");
        }
        Else{
            This.volume+=10;
            System.out.println("Volume is : "+getVolume());
        }
    }
}
```

```
@Override
Public void volumeDown(){
    If(is_power_on){
        If(this.volume==MIN_VOL){
            System.out.println("Volume is 0%");
        }
        Else{
```

```

        This.volume-=10;

        System.out.println("Volume is : "+getVolume());
    }
}

Public int getVolume(){
    Return this.volume;
}
}

```

*Toshiba.java*

Package tugas6.Laptopku;

```

Public class Toshiba implements Laptop{
    Private int volume;
    Boolean is_power_on;

    Public Toshiba(){
        This.volume=50;
    }

    @Override
    Public void powerOn(){
        Is_power_on=true;
        System.out.println("Laptop is On");
        System.out.println("Toshiba Satellite");
    }

    @Override
    Public void powerOff(){

```



```
is_power_on=false;

System.out.println("Shutdown in process ...");
}
```

@Override

```
Public void volumeUp(){
    If(is_power_on){
        If(this.volume==MAX_VOL){
            System.out.println("Volume is Full ");
        }
        Else{
            This.volume+=10;
            System.out.println("Volume is : "+getVolume());
        }
    }
}
```

@Override

```
Public void volumeDown(){
    If(is_power_on){
        If(this.volume==MIN_VOL){
            System.out.println("Volume is 0%");
        }
        Else{
            This.volume-=10;
            System.out.println("Volume is : "+getVolume());
        }
    }
}
```

```
Public int getVolume(){
```

```
        Return this.volume;
    }
}
```

### *Main.java*

```
Package tugas 6.Laptopku;
```

```
Import java.util.Scanner;
```

```
Import java.util.ArrayList;
```

```
Public class Main {
```

```
    Static void batas(){
```

```
        System.out.println("=====");
```

```
    }
```

```
    Static void pilihLaptop(){
```

```
        System.out.println("1. Lenovo");
```

```
        System.out.println("2. Toshiba");
```

```
        System.out.println("3. MacBook");
```

```
        System.out.println("");
```

```
    }
```

```
    Static void menuLaptop(){
```

```
        System.out.println("1. Input 'ON' untuk menyalakan laptop");
```

```
        System.out.println("2. Input 'OFF' untuk mematikan laptop");
```

```
        System.out.println("3. Input 'UP' untuk menambah volume");
```

```
        System.out.println("4. Input 'DOWN' untuk mengurangi volume");
```

```
    }
```

```
    Public static void main(String[] args) {
```

```
        Boolean bool=true;
```

```
        Scanner sc=new Scanner(System.in);
```

```
ArrayList<Laptop> laptop = new ArrayList<>();
```

```
Lenovo lenovo=new Lenovo();
```

```
Toshiba toshiba=new Toshiba();
```

```
MacBook macbook=new MacBook();
```

```
System.out.println("\n\tMerk Laptop");
```

```
Batas();
```

```
pilihLaptop();
```

```
System.out.print("Pilih jenis laptop : ");
```

```
Int noJenisLaptop=sc.nextInt();
```

```
Switch(noJenisLaptop){
```

```
    Case 1:
```

```
        Laptop.add(lenovo);
```

```
        Break;
```

```
    Case 2 :
```

```
        Laptop.add(toshiba);
```

```
        Break;
```

```
    Case 3 :
```

```
        Laptop.add(macbook);
```

```
}
```

```
While(bool){
```

```
    System.out.println("\n\t Menu");
```

```
    Batas();
```

```
    menuLaptop();
```

```
    System.out.print("Input : ");
```

```
    String noMenu=sc.next();
```

```
    Switch(noMenu){
```

```
        Case "ON":
```

```
            Laptop.get(0).powerOn();
```

```
            Break;
```

Case "OFF":

Laptop.get(0).powerOff();

Bool=false;

Break;

Case "UP":

Laptop.get(0).volumeUp();

Break;

Case "DOWN":

Laptop.get(0).volumeDown();

Break;

Default:

System.out.println("PILIH SESUAI INSTRUKSI DI MENU -\_-");

Break;

}

}

}

}