Jurnal Modul 7

PEMROGRAMAN BERORIENTASI OBJEK – Ganjil 2023/2024

" Abstract and Interface "

Nama : Bella Hutauruk

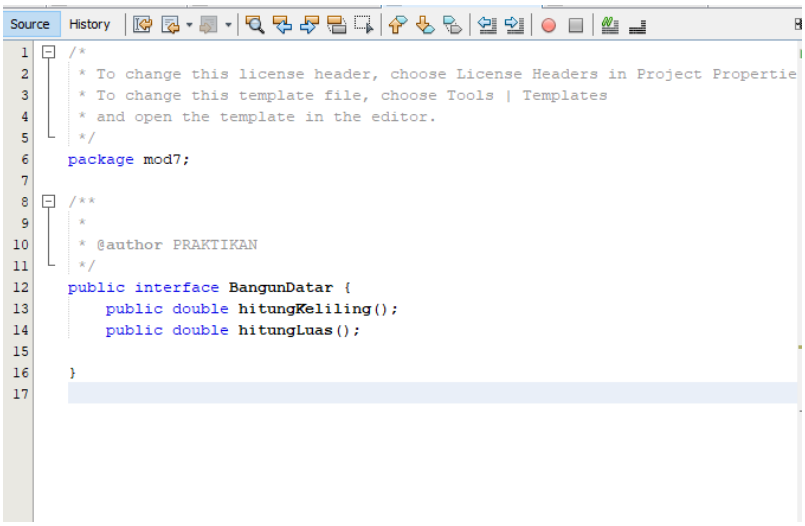
Kelas : IF 45 07

NIM : 1301213327

Kode Asprak : SUI

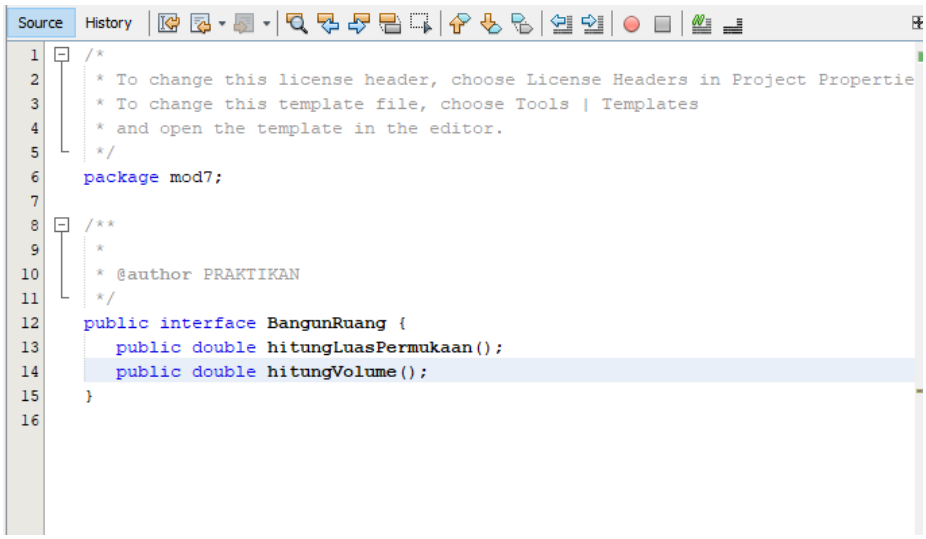
Jawab :

BangunDatar



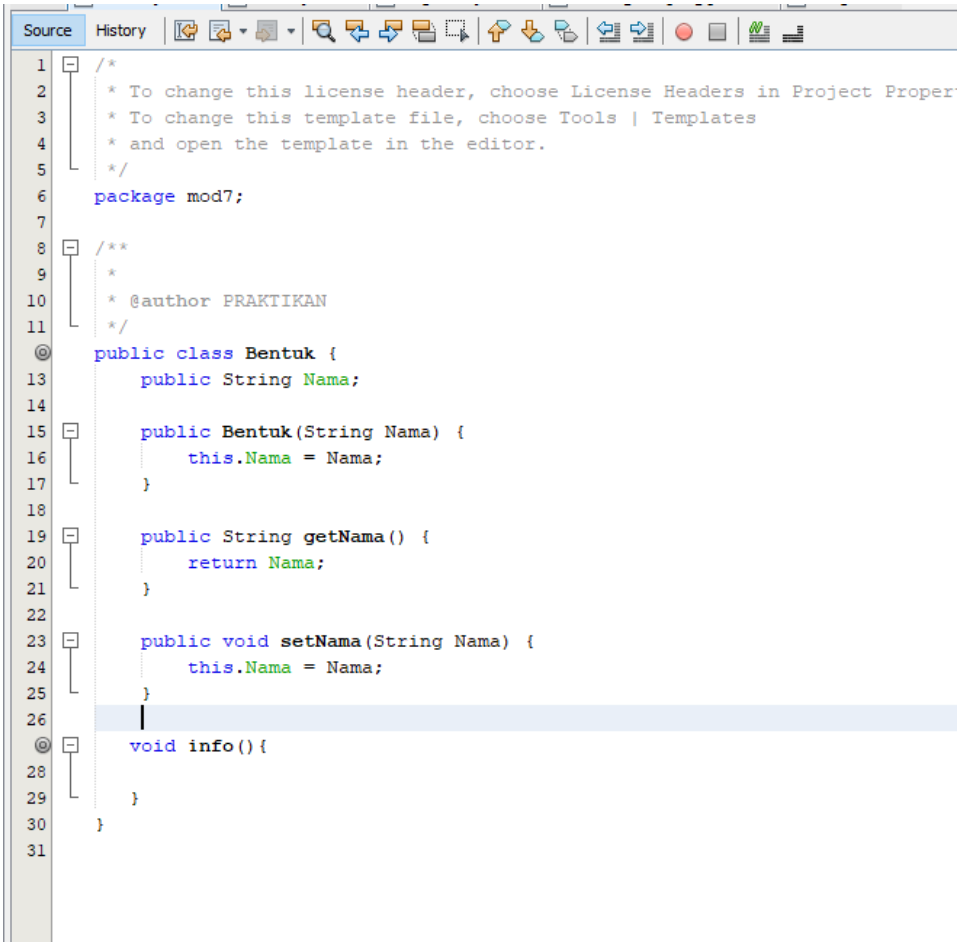
```
/*
 * To change this license header, choose License Headers in Project Propertie
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package mod7;

/**
 *
 * @author PRAKTIKAN
 */
public interface BangunDatar {
    public double hitungKeliling();
    public double hitungLuas();

}
```

BangunRuang



```
/*
 * To change this license header, choose License Headers in Project Propertie
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package mod7;

/**
 *
 * @author PRAKTIKAN
 */
public interface BangunRuang {
   public double hitungLuasPermukaan();
   public double hitungVolume();
}
```

Bentuk


Source
History
/*
* To change this license header, choose License Headers in Project Proper
* To change this template file, choose Tools | Templates
* and open the template in the editor.
*/
package mod7;
/**
*
* @author PRAKTIKAN
*/
public class Bentuk {
public String Nama;
public Bentuk(String Nama) {
this.Nama = Nama;
}
public String getNama() {
return Nama;
}
public void setNama(String Nama) {
this.Nama = Nama;
}
void info(){
}
}

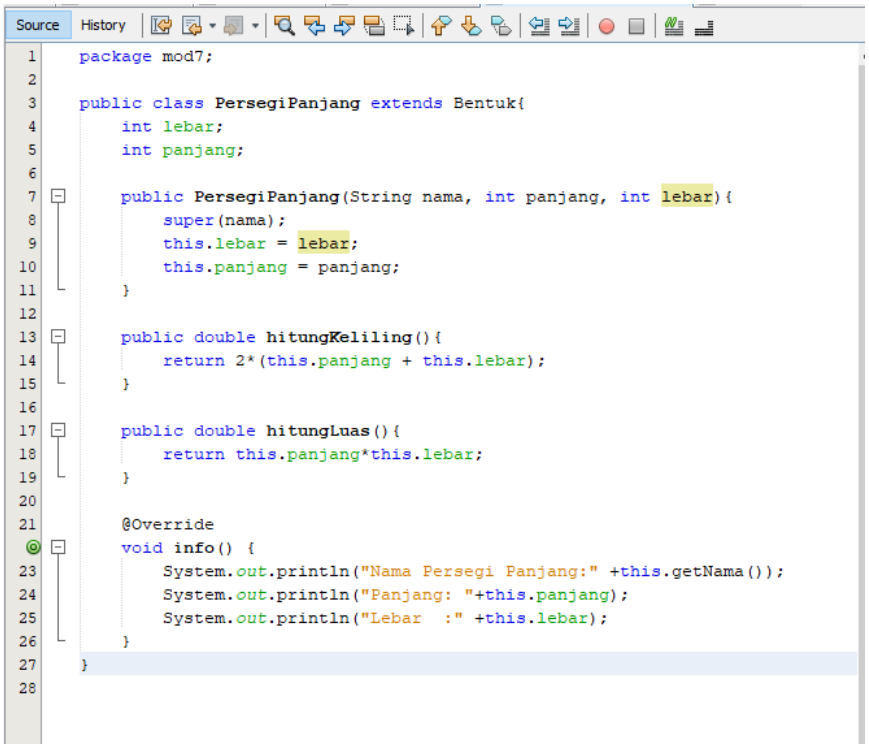
Kubus

```java
package mod7;

public class Kubus extends Bentuk{
    int sisi;

    public Kubus(String nama, int sisi){
        super(nama);
        this.sisi = sisi;
    }

    public double hitungLuasPermukaan(){
        return 6* this.sisi * this.sisi ;
    }

    public double hitungVolume(){
        return this.sisi *this.sisi*this.sisi;
    }

    @Override
    void info() {
        System.out.println("Nama Kubus: "+this.getNama());
        System.out.println("Panjang Sisi:" +this.sisi);
    }
}
```

Lingkaran

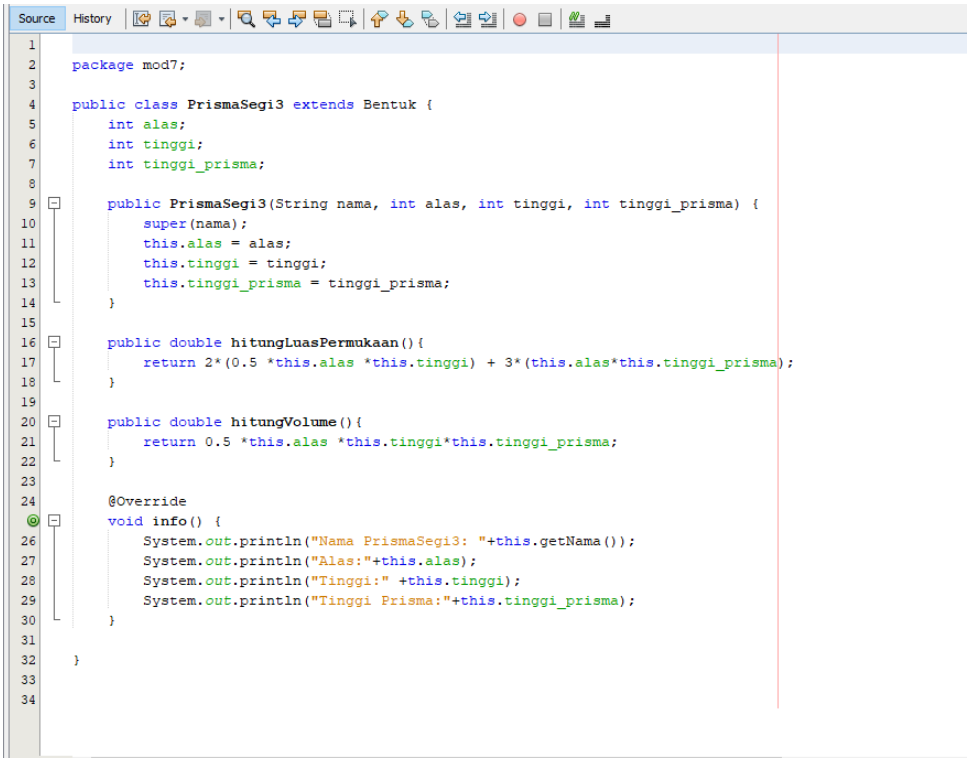
```java
package mod7;

public class Lingkaran extends Bentuk{
    int jari_jari;

    public Lingkaran(String nama,int jari_jari){
        super(nama);
        this.jari_jari = jari_jari;
    }

    public double hitungKeliling(){
        return Math.ceil(Math.PI * 2 *this.jari_jari);
    }

    public double hitungLuas(){
        return Math.ceil(Math.PI*(this.jari_jari * this.jari_jari));
    }

    @Override
    void info() {
        System.out.println("Lingkaran: "+ this.getNama());
        System.out.println("Panjang : "+ this.jari_jari);
    }
}
```

PersegiPanjang



```java
package mod7;

public class PersegiPanjang extends Bentuk{
    int lebar;
    int panjang;

    public PersegiPanjang(String nama, int panjang, int lebar){
        super(nama);
        this.lebar = lebar;
        this.panjang = panjang;
    }

    public double hitungKeliling(){
        return 2*(this.panjang + this.lebar);
    }

    public double hitungLuas(){
        return this.panjang*this.lebar;
    }

    @Override
    void info() {
        System.out.println("Nama Persegi Panjang:" +this.getNama());
        System.out.println("Panjang: "+this.panjang);
        System.out.println("Lebar  :" +this.lebar);
    }
}
```

PrismaSegi3



```java
package mod7;

public class PrismaSegi3 extends Bentuk {
    int alas;
    int tinggi;
    int tinggi_prisma;

    public PrismaSegi3(String nama, int alas, int tinggi, int tinggi_prisma) {
        super(nama);
        this.alas = alas;
        this.tinggi = tinggi;
        this.tinggi_prisma = tinggi_prisma;
    }

    public double hitungLuasPermukaan(){
        return 2*(0.5 *this.alas *this.tinggi) + 3*(this.alas*this.tinggi_prisma);
    }

    public double hitungVolume(){
        return 0.5 *this.alas *this.tinggi*this.tinggi_prisma;
    }

    @Override
    void info() {
        System.out.println("Nama PrismaSegi3: "+this.getNama());
        System.out.println("Alas:"+this.alas);
        System.out.println("Tinggi:" +this.tinggi);
        System.out.println("Tinggi Prisma:"+this.tinggi_prisma);
    }

}
```

DriverBentuk

```
Source  History
1  package mod7;
2
3  public class driverbentuk {
4
5      /**
6       * @param args the command line arguments
7       */
8      public static void main(String[] args) {
9          // TODO code application logic here
10         Kubus K = new Kubus("Kiub", 5);
11         Lingkaran L = new Lingkaran("Sirkel", 14);
12         PersegiPanjang PP = new PersegiPanjang("Rektengel",8,9);
13         PrismaSegi3 PS3 = new PrismaSegi3("Traienggel Prism",6, 7, 10);
14         L.info();
15         System.out.println("Luas    :"+L.hitungLuas());
16         System.out.println("Keliling    :"+L.hitungKeliling());
17         PP.info();
18         System.out.println("Luas    :" +L.hitungLuas());
19         System.out.println("Keliling    :"+L.hitungKeliling());
20         K.info();
21         System.out.println("Luas Permukaa:  "+K.hitungLuasPermukaan());
22         System.out.println("Volume    :"+K.hitungVolume());
23         PS3.info();
24         System.out.println("Luas Permukaan    :" +PS3.hitungLuasPermukaan());
25         System.out.println("Volume    :"+PS3.hitungVolume());
26
27     }
28
29 }
30
```

OUTPUT :

```
Output - MOD7 (run)
run:
Lingkaran: Sirkel
Panjang : 14
Luas    :616.0
Keliling    :88.0
Nama Persegi Panjang:Rektengel
Panjang: 8
Lebar   :9
Luas    :616.0
Keliling    :88.0
Nama Kubus: Kiub
Panjang Sisi:5
Luas Permukaa:  150.0
Volume    :125.0
Nama PrismaSegi3: Traienggel Prism
Alas:6
Tinggi:7
Tinggi Prisma:10
Luas Permukaan    :222.0
Volume    :210.0
BUILD SUCCESSFUL (total time: 0 seconds)
```