

**LAPORAN PRAKTIKUM
MODUL 9
ABSTRAC CLASS
PRAKTIKUM PEMROGRAMAN BERORIENTASI OBJEK**



**Senopati Bkti W
L200190143
Praktikum PBO D**

INFORMATIKA

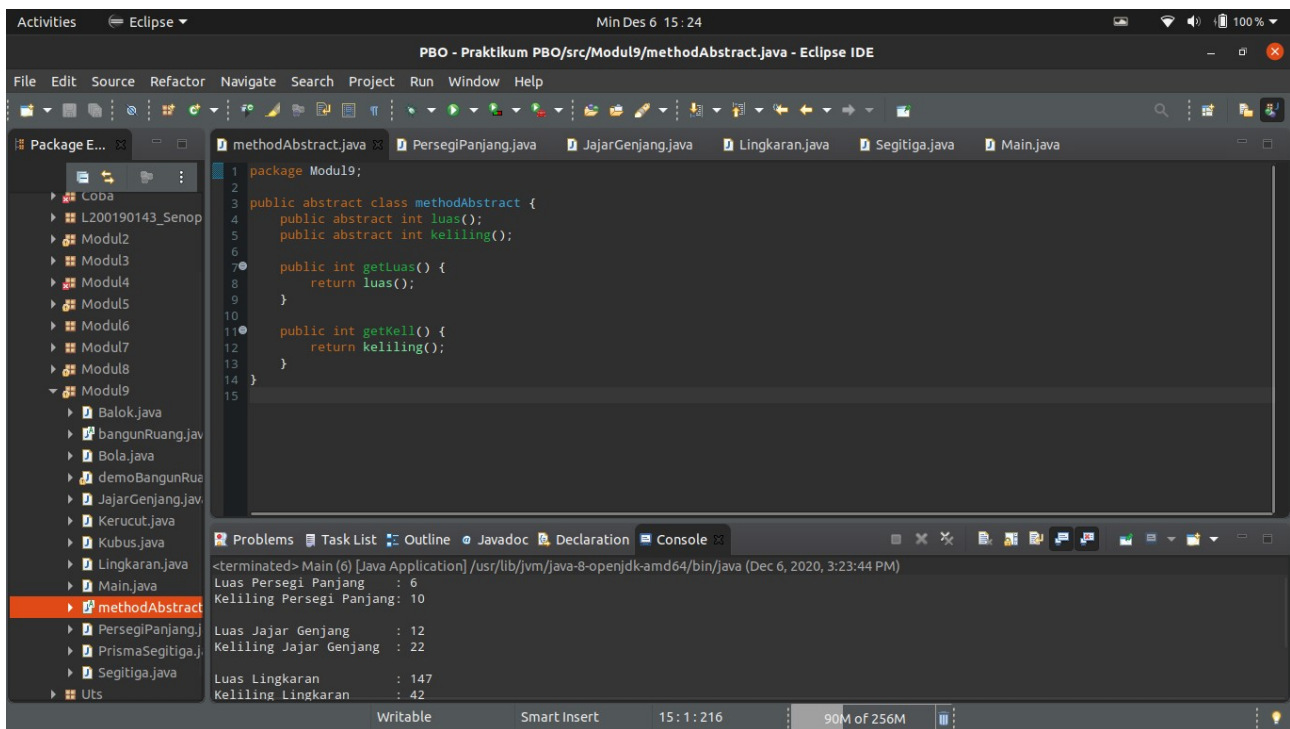
FAKULTAS KOMUNIKASI DAN INFORMATIKA

UNIVERSITAS MUHAMMADIYAH SURAKARTA

2020

Latihan

Dengan menggunakan class MethodAbstrak pada Program 5 diatas, buatlah class PersegiPanjang, JajarGenjang, Lingkaran dan Segitiga! Selanjutnya implementasikan method luas() dan keliling() yang sesuai dengan perhitungan masing-masing class.



```
package Modul9;

public abstract class methodAbstract {
    public abstract int luas();
    public abstract int keliling();

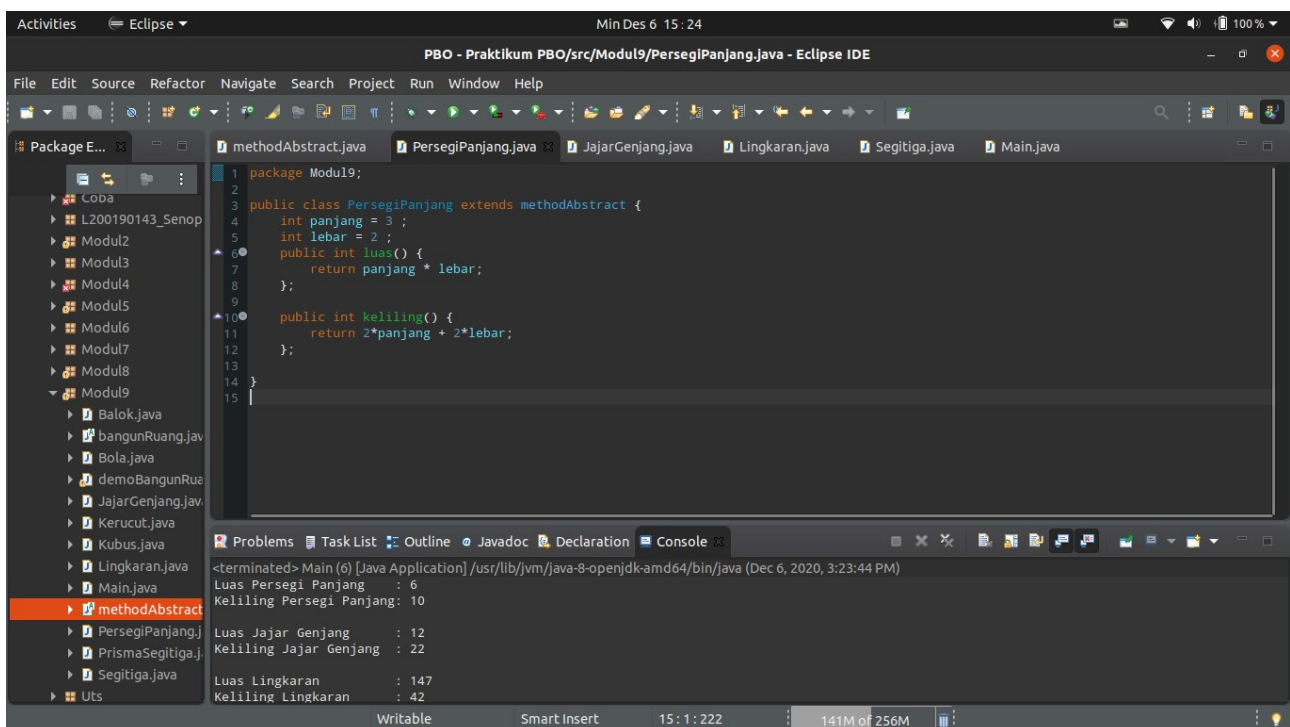
    public int getLuas() {
        return luas();
    }

    public int getKell() {
        return keliling();
    }
}
```

Problems Task List Outline Javadoc Declaration Console

<terminated> Main (6) [Java Application] /usr/lib/jvm/java-8-openjdk-amd64/bin/java (Dec 6, 2020, 3:23:44 PM)

Luas Persegi Panjang	: 6
Keliling Persegi Panjang	: 10
Luas Jajar Genjang	: 12
Keliling Jajar Genjang	: 22
Luas Lingkaran	: 147
Keliling Lingkaran	: 42



```
package Modul9;

public class PersegiPanjang extends methodAbstract {
    int panjang = 3;
    int lebar = 2;

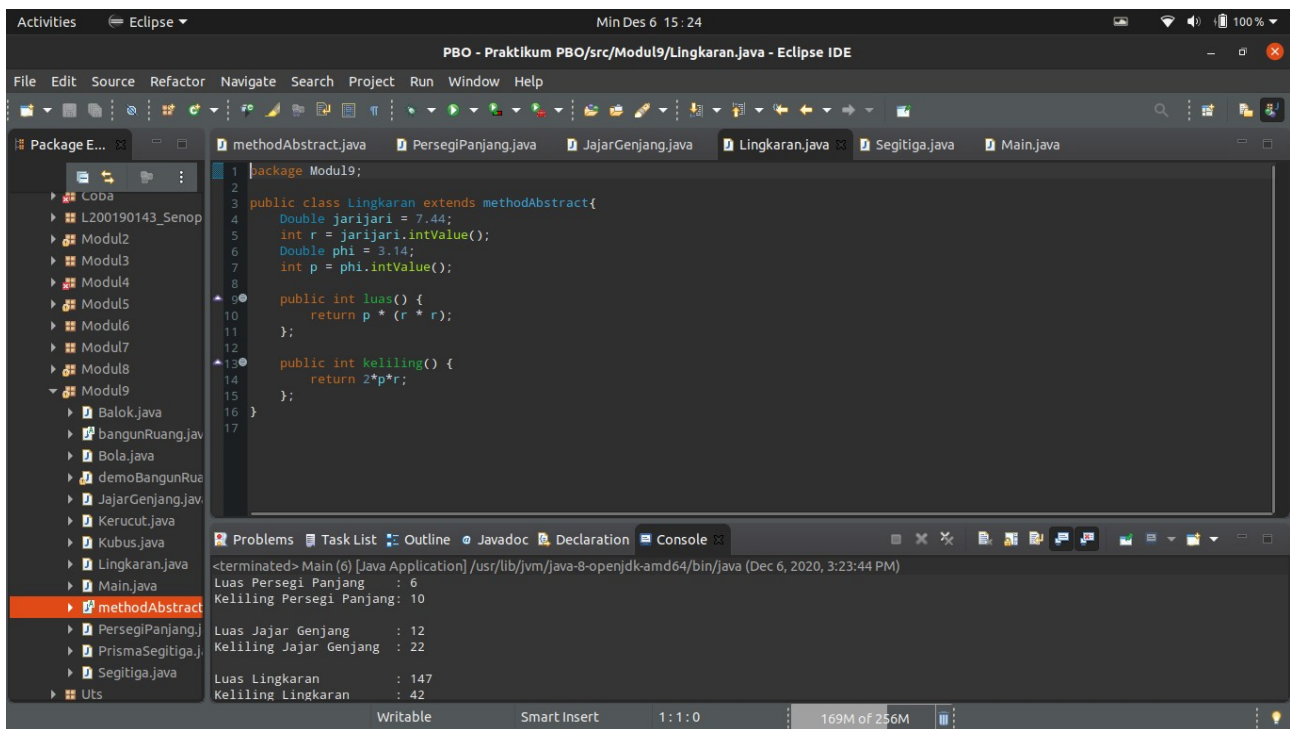
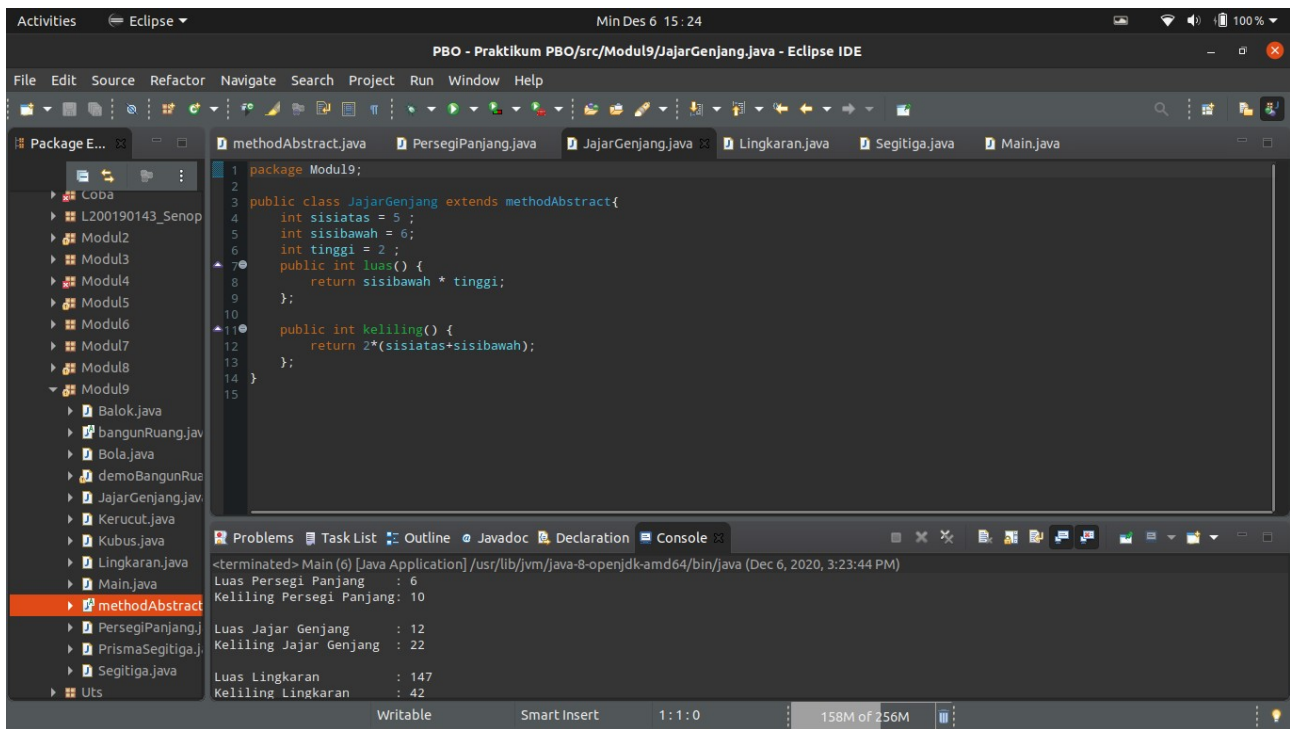
    public int luas() {
        return panjang * lebar;
    }

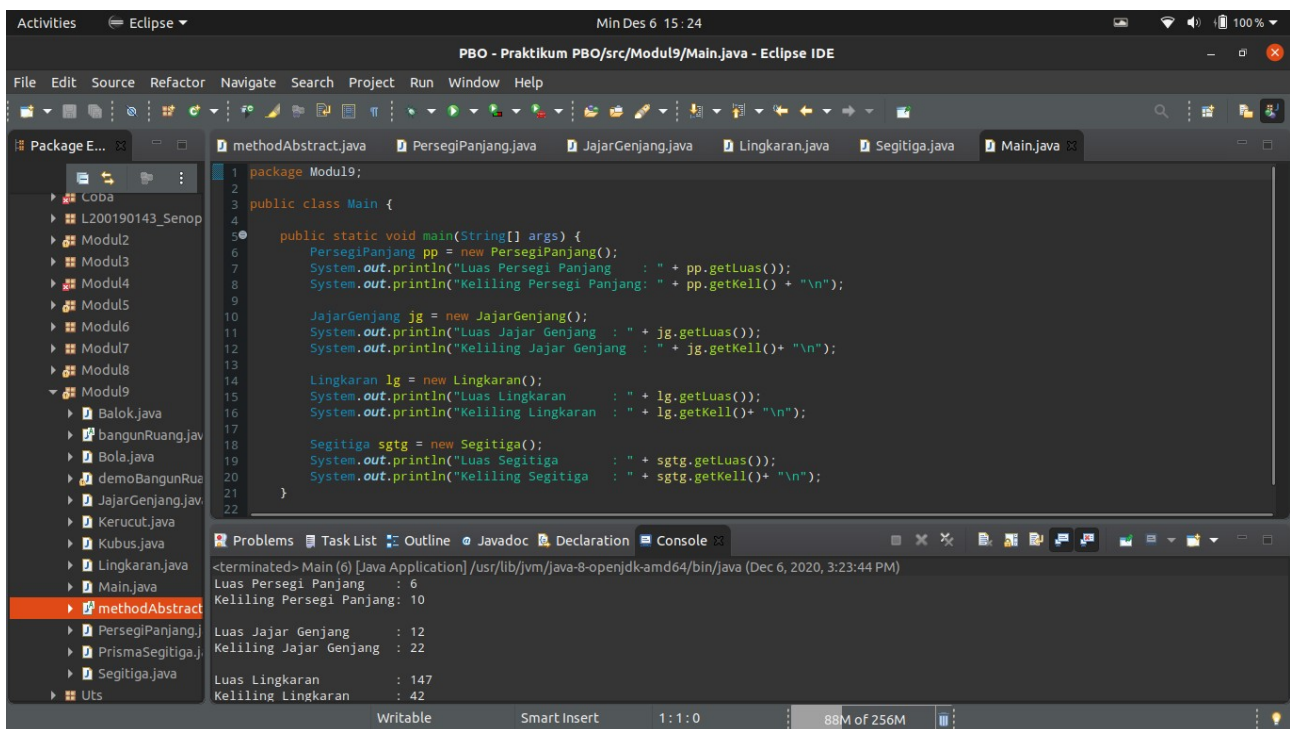
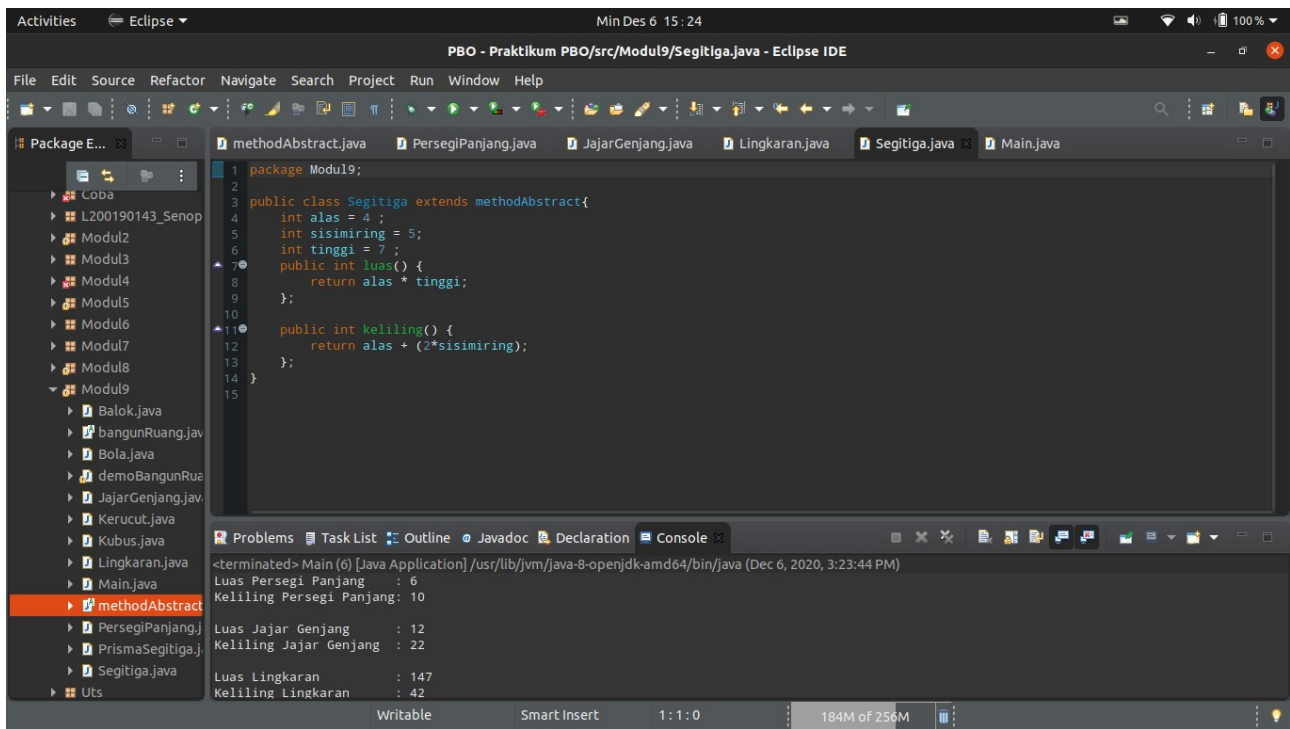
    public int keliling() {
        return 2*panjang + 2*lebar;
    }
}
```

Problems Task List Outline Javadoc Declaration Console

<terminated> Main (6) [Java Application] /usr/lib/jvm/java-8-openjdk-amd64/bin/java (Dec 6, 2020, 3:23:44 PM)

Luas Persegi Panjang	: 6
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TUGAS

Buatlah class abstract untuk bangun ruang, dengan ketentuan memiliki method abstract untuk menghitung volume, dan luasSelimut/luasPermukaan. Selanjutnya buatlah class Balok, Kubus, Bola, Kerucut, dan PrismaSegitiga untuk mengimplementasikan method abstract tersebut!

The screenshot shows the Eclipse IDE with the file 'Balok.java' open. The code defines a package 'Modul9' and a class 'Balok' that extends an abstract class 'bangunRuang'. The class has three attributes: 'p' (width) set to 5, 'l' (length) set to 3, and 't' (height) set to 2. It implements two methods: 'volume()' which returns the product of p, l, and t (30), and 'luasSelimut()' which returns the sum of the lateral surface areas (62). The Package Explorer on the left shows the project structure with 'Modul9' containing 'Balok.java', 'bangunRuang.java', 'Bola.java', 'Kerucut.java', 'Kubus.java', 'PrismaSegitiga.java', and 'demoBangunRuang.java'. The Console window at the bottom shows the output of the 'demoBangunRuang' application, displaying the calculated volume and surface area for Balok, Kubus, and Bola.

```
package Modul9;

public class Balok extends bangunRuang {
    int p = 5;
    int l = 3;
    int t = 2;

    public int volume() {
        return p*l*t;
    }

    public int luasSelimut() {
        return 2*(p*l + p*t + l*t);
    }
}
```

<terminated> demoBangunRuang [Java Application] /usr/lib/jvm/java-8-openjdk-amd64/bin/java (Dec 6, 2020, 3:28:27 PM)
Volume Balok = 30
Luas Permukaan Balok = 62
Volume Kubus = 27
Luas Permukaan Kubus = 54
Volume Bola = 1029
Luas Permukaan Bola = 588

The screenshot shows the Eclipse IDE with the file 'Kubus.java' open. The code defines a package 'Modul9' and a class 'Kubus' that extends the abstract class 'bangunRuang'. The class has one attribute: 's' (side length) set to 3. It implements two methods: 'volume()' which returns the cube of s (27), and 'luasSelimut()' which returns 6 times the square of s (54). The Package Explorer on the left shows the project structure with 'Modul9' containing 'Balok.java', 'bangunRuang.java', 'Bola.java', 'Kerucut.java', 'Kubus.java', 'PrismaSegitiga.java', and 'demoBangunRuang.java'. The Console window at the bottom shows the output of the 'demoBangunRuang' application, displaying the calculated volume and surface area for Balok, Kubus, and Bola.

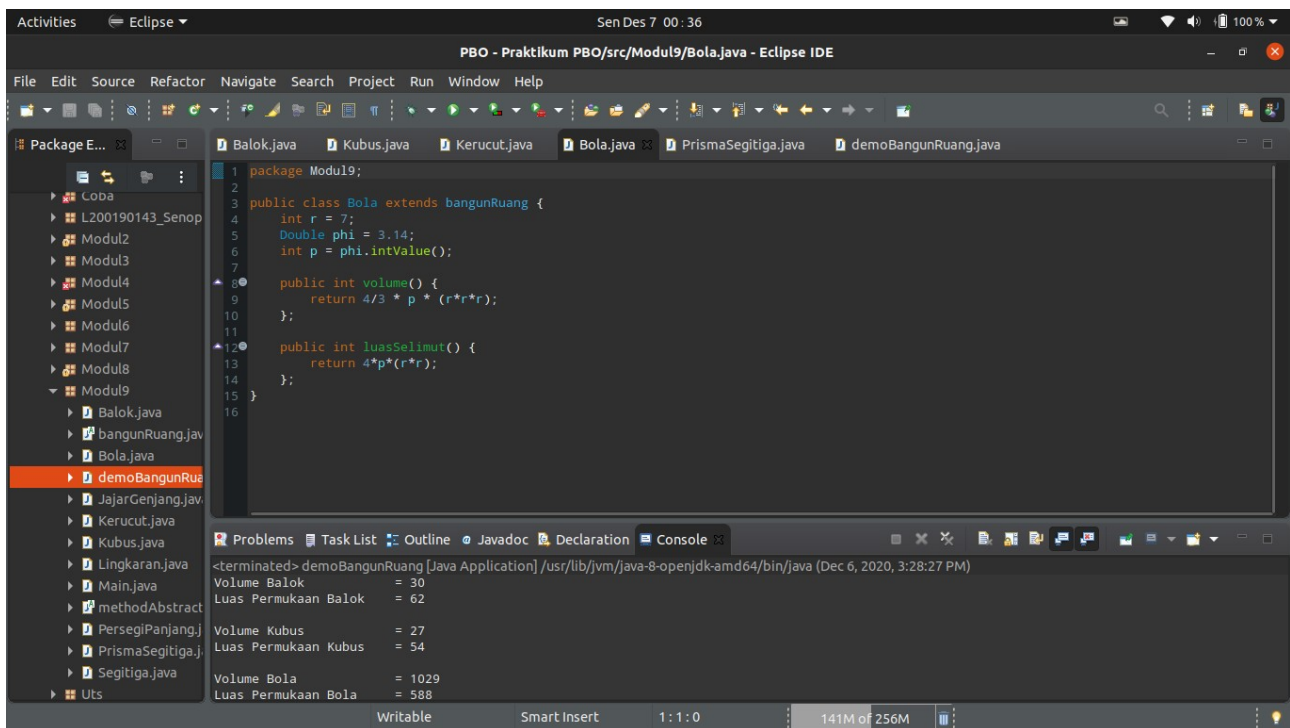
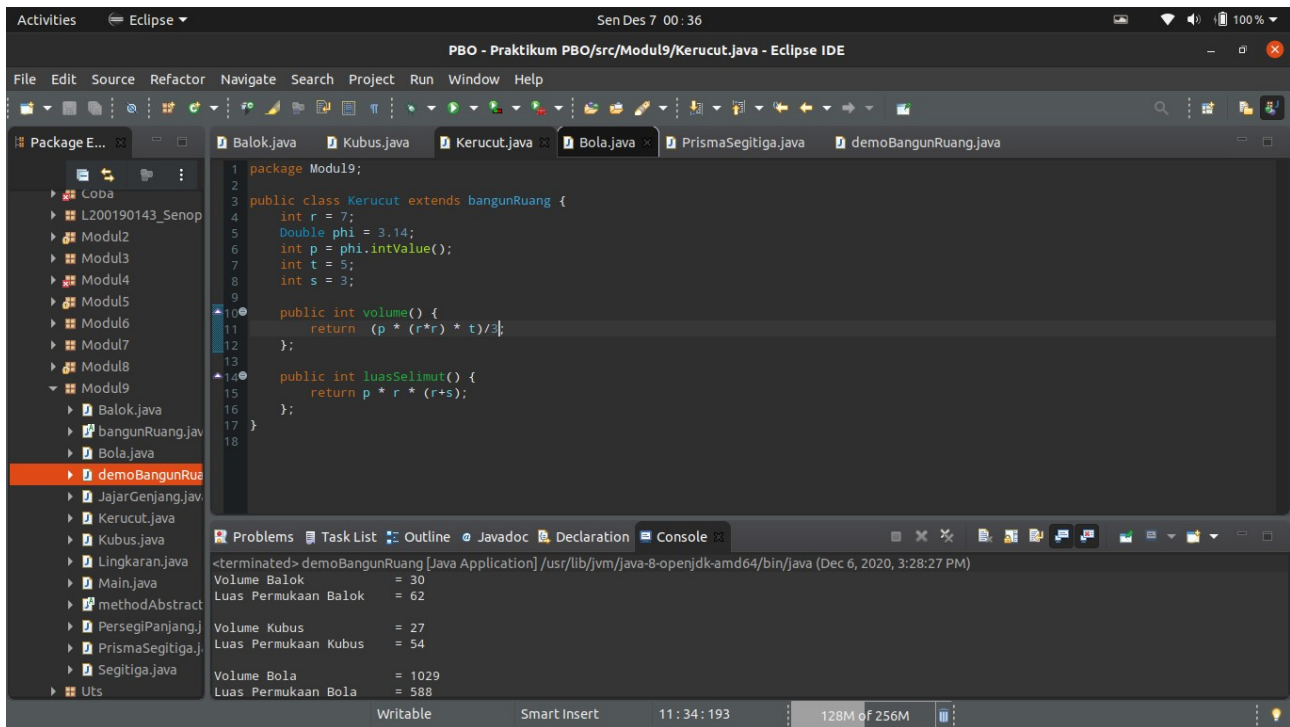
```
package Modul9;

public class Kubus extends bangunRuang{
    int s = 3;

    public int volume() {
        return s*s*s;
    }

    public int luasSelimut() {
        return 6*(s*s);
    }
}
```

<terminated> demoBangunRuang [Java Application] /usr/lib/jvm/java-8-openjdk-amd64/bin/java (Dec 6, 2020, 3:28:27 PM)
Volume Balok = 30
Luas Permukaan Balok = 62
Volume Kubus = 27
Luas Permukaan Kubus = 54
Volume Bola = 1029
Luas Permukaan Bola = 588



Activities Eclipse Sen Des 7 00:36

PBO - Praktikum PBO/src/Modul9/PrismaSegitiga.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer: L200190143_Senop, Modul2, Modul3, Modul4, Modul5, Modul6, Modul7, Modul8, Modul9, Balok.java, bangunRuang.java, Bola.java, demoBangunRuang.java, JajarGenjang.java, Kerucut.java, Kubus.java, Lingkaran.java, Main.java, methodAbstract, PersegiPanjang.java, PrismaSegitiga.java, Segitiga.java, Uts

```
1 package Modul9;
2
3 public class PrismaSegitiga extends bangunRuang{
4     int as = 7;
5     int ts = 5;
6     int tp = 9;
7     Double c = Math.sqrt((as*as) + (ts*ts));
8     int miring = c.intValue();
9
10    public int volume() {
11        return ((as*ts)/2)*tp;
12    };
13
14    public int luasSelimut() {
15        return tp * (miring+as+ts) + (2*((as*ts)/2));
16    };
17 }
18
```

Problems Task List Outline Javadoc Declaration Console

<terminated> demoBangunRuang [Java Application] /usr/lib/jvm/java-8-openjdk-amd64/bin/java (Dec 6, 2020, 3:28:27 PM)

Volume Balok	= 30
Luas Permukaan Balok	= 62
Volume Kubus	= 27
Luas Permukaan Kubus	= 54
Volume Bola	= 1029
Luas Permukaan Bola	= 588

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Activities Eclipse Sen Des 7 00:36

PBO - Praktikum PBO/src/Modul9/demoBangunRuang.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer: L200190143_Senop, Modul2, Modul3, Modul4, Modul5, Modul6, Modul7, Modul8, Modul9, Balok.java, bangunRuang.java, Bola.java, demoBangunRuang.java, JajarGenjang.java, Kerucut.java, Kubus.java, Lingkaran.java, Main.java, methodAbstract, PersegiPanjang.java, PrismaSegitiga.java, Segitiga.java, Uts

```
6 Kubus kb = new Kubus();
7 Bola bl = new Bola();
8 Kerucut krct = new Kerucut();
9 PrismaSegitiga ps = new PrismaSegitiga();
10
11 System.out.println("Volume Balok = " + blk.getVolume());
12 System.out.println("Luas Permukaan Balok = "+blk.getLuasSelimut() + "\n");
13
14 System.out.println("Volume Kubus = " + kb.getVolume());
15 System.out.println("Luas Permukaan Kubus = "+kb.getLuasSelimut() + "\n");
16
17 System.out.println("Volume Bola = " + bl.getVolume());
18 System.out.println("Luas Permukaan Bola = "+bl.getLuasSelimut() + "\n");
19
20 System.out.println("Volume Kerucut = " + krct.getVolume());
21 System.out.println("Luas Permukaan Kerucut = "+krct.getLuasSelimut() + "\n");
22
23 System.out.println("Volume Prisma Segitiga = " + ps.getVolume());
24 System.out.println("Luas Permukaan Prisma Segitiga = "+ps.getLuasSelimut() + "\n");
25
26 }
27
```

Problems Task List Outline Javadoc Declaration Console

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