OBJECT-ORIENTED PROGRAMMING WORK

MODULE 9

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INFORMATICS STUDY PROGRAM

FACULTY OF COMMUNICATION AND INFORMATION SCIENCE

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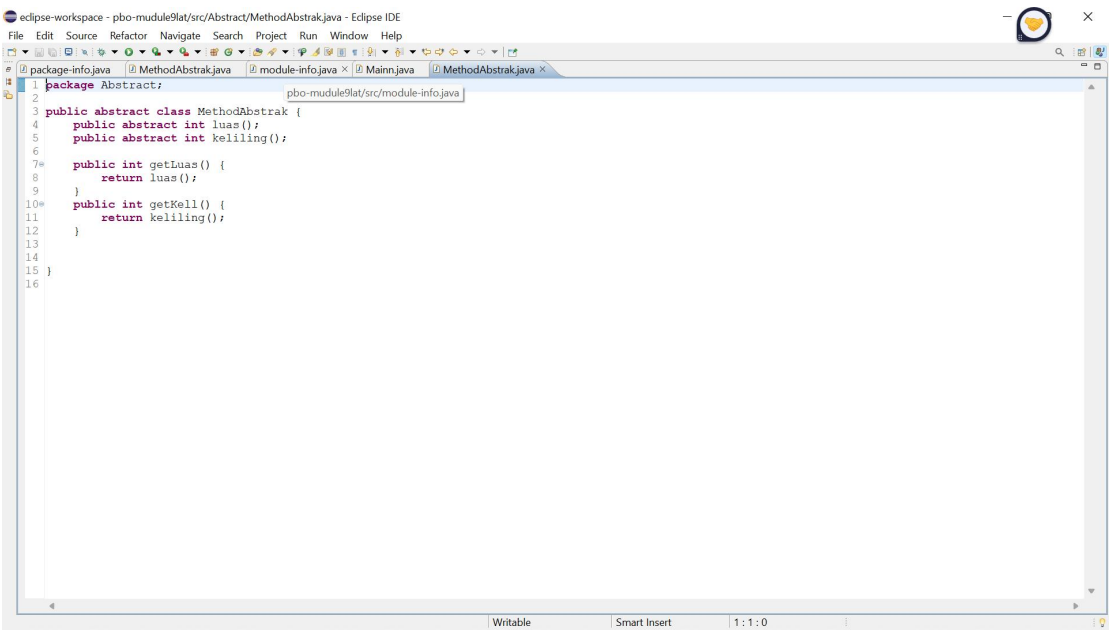
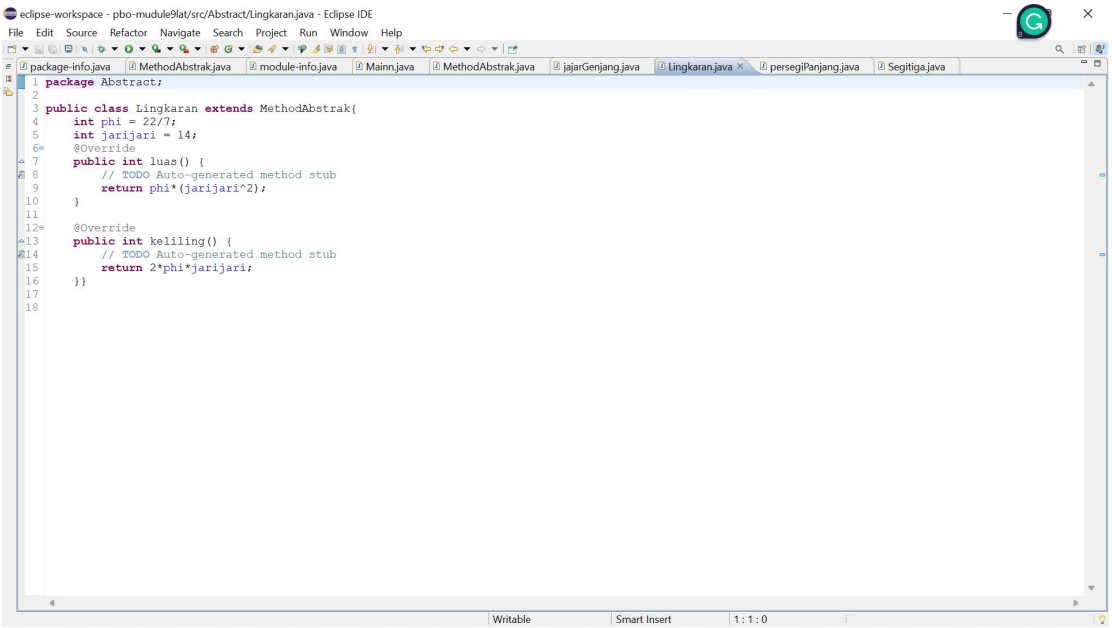
Exercise

Create an Abstract Method class, then create a new class named Rectangle, Parallelogram, Circle, and Triangle. Next, implement the area() and circumference() methods according to the calculations of each class.

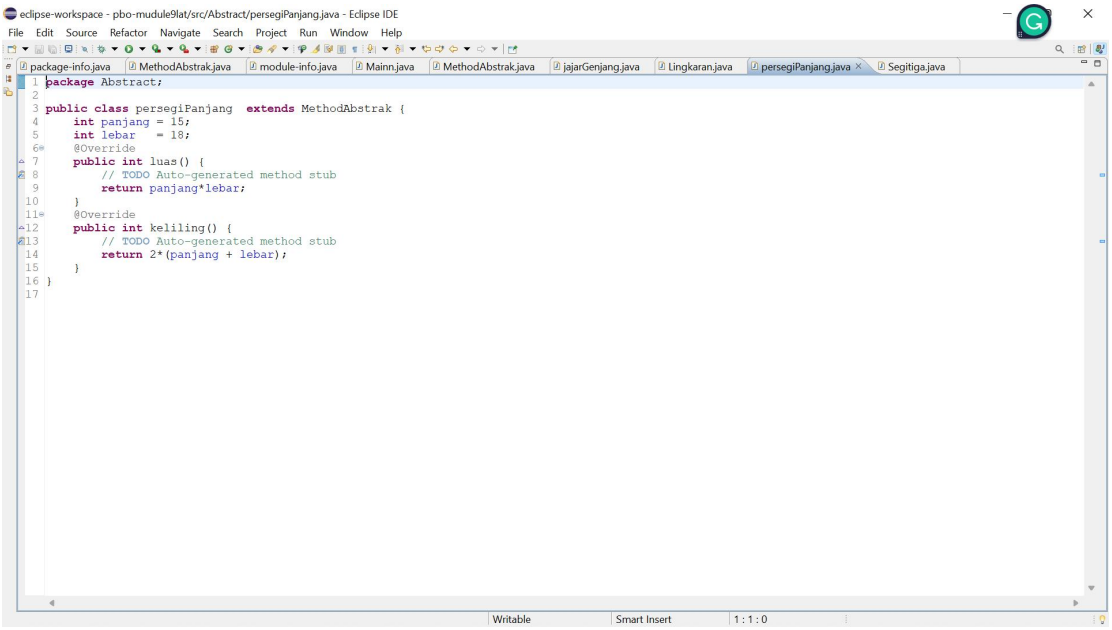
MethodAbstrak class



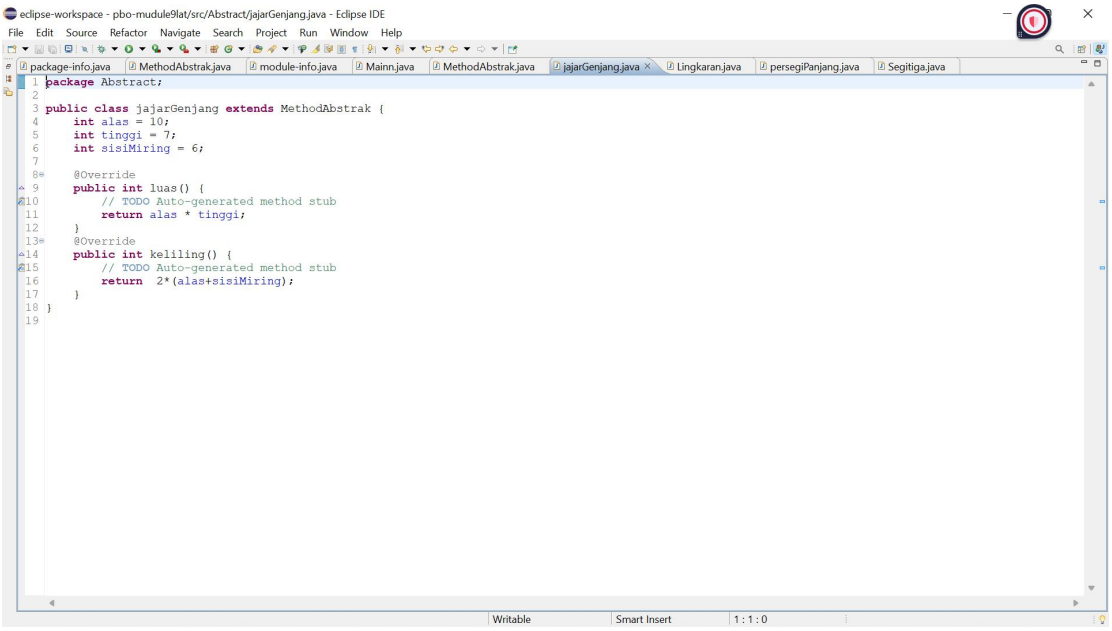
Lingkaran



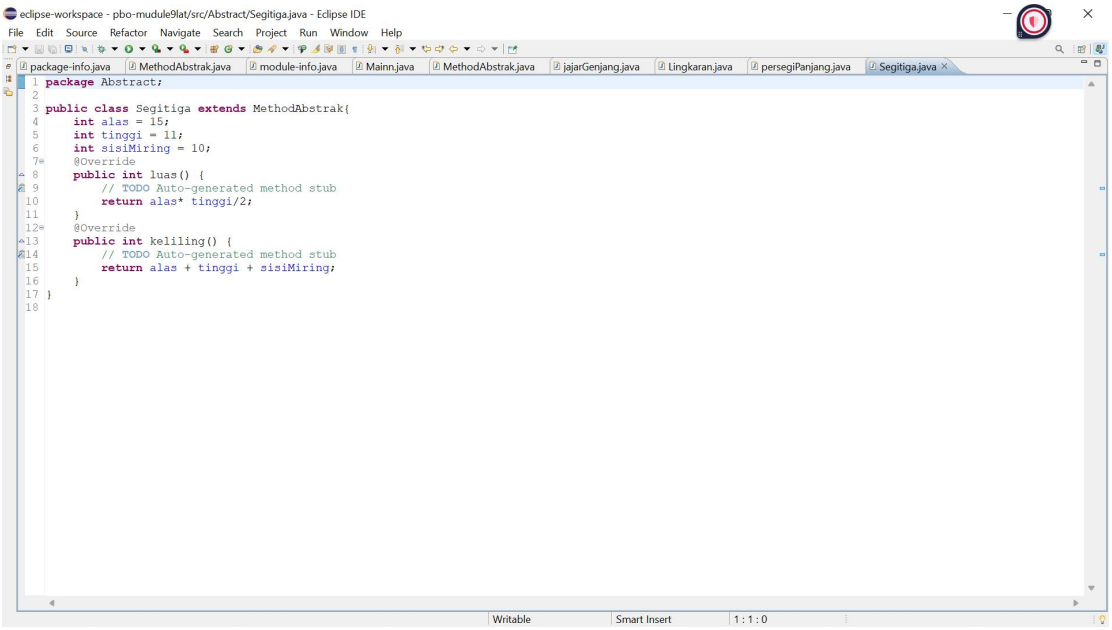
Persegi Panjang



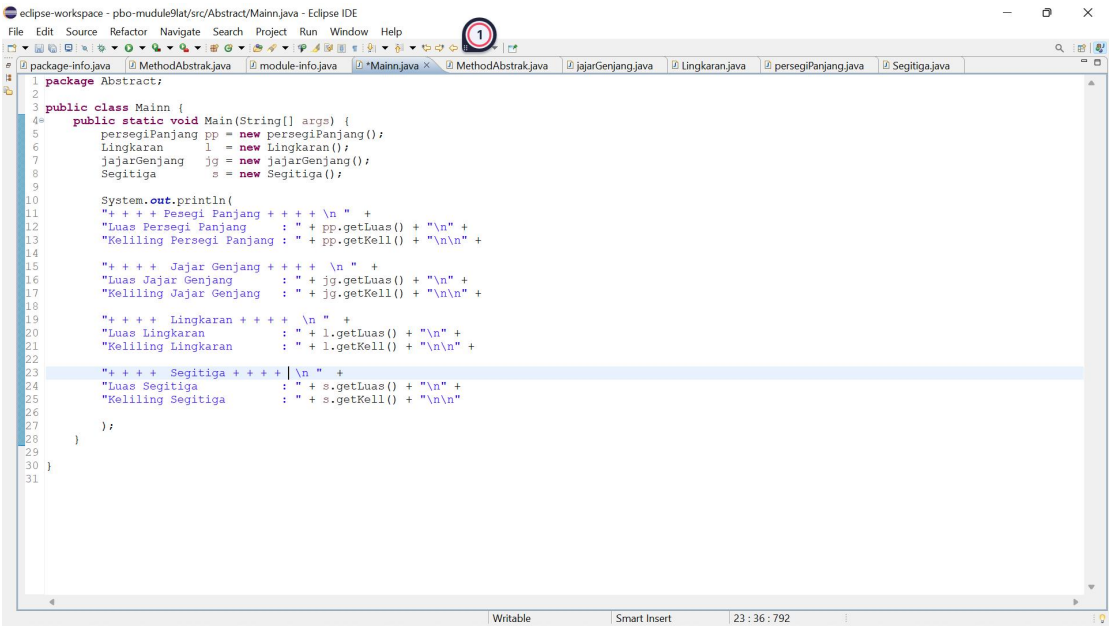
Jajar Genjang



Segitiga



Mainn



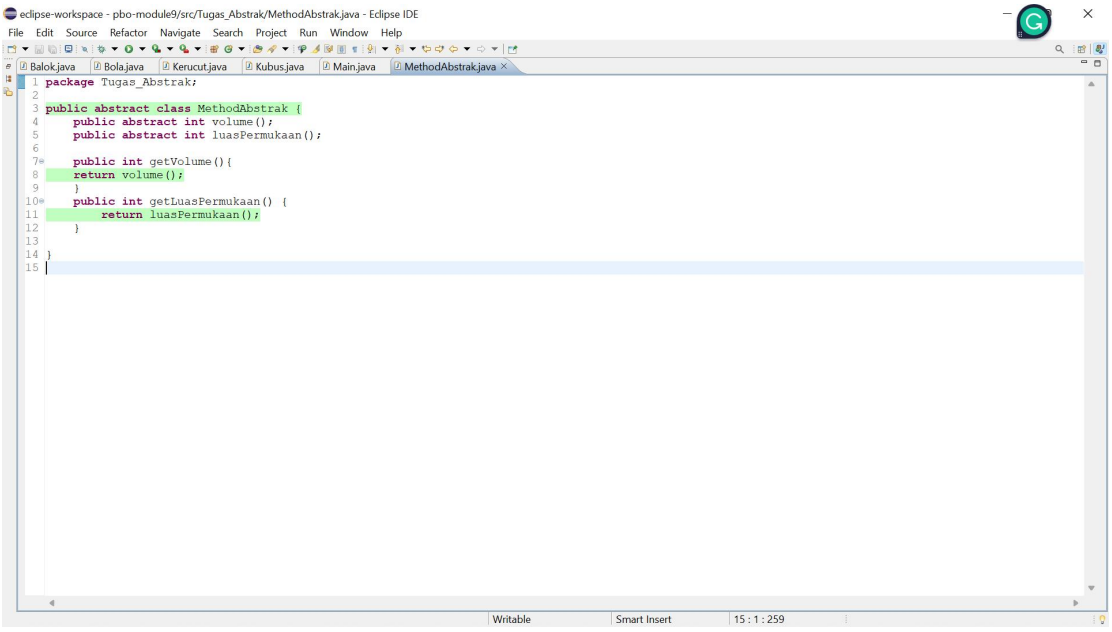
Output:

```
+ + + + Persegi Panjang + + + +
Luas Persegi Panjang        : 270
Keliling Persegi panjang    : 66

+ + + + Jajar Genjang + + + +
Luas Jajar Genjang          : 70
Keliling Jajar Genjang      : 32

+ + + + Lingkaran + + + +
Luas Lingkaran              : 36
Keliling Lingkaran          : 84

+ + + + Segitiga + + + +
Luas Segitiga               : 82
Keliling Segitiga           : 36
```

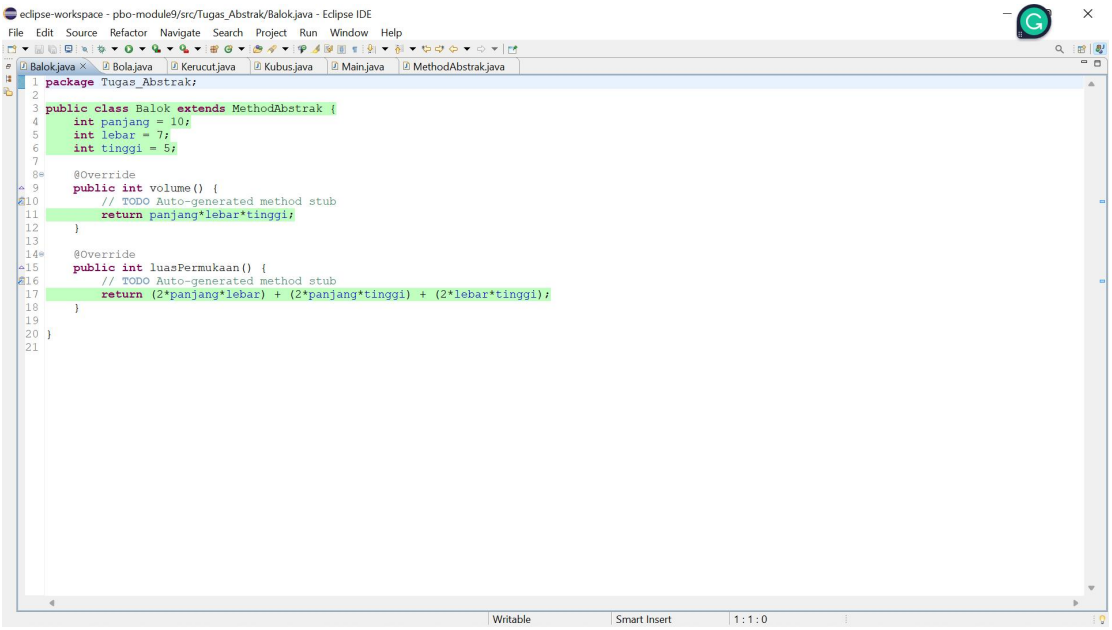
Task

Create an abstract class for constructing space, provided that it has an abstract method for calculating volume, and Cover area/Surface area. Next, create a Beam, Cube, Sphere, Cone, and Triangle Prism class to implement the abstract method.

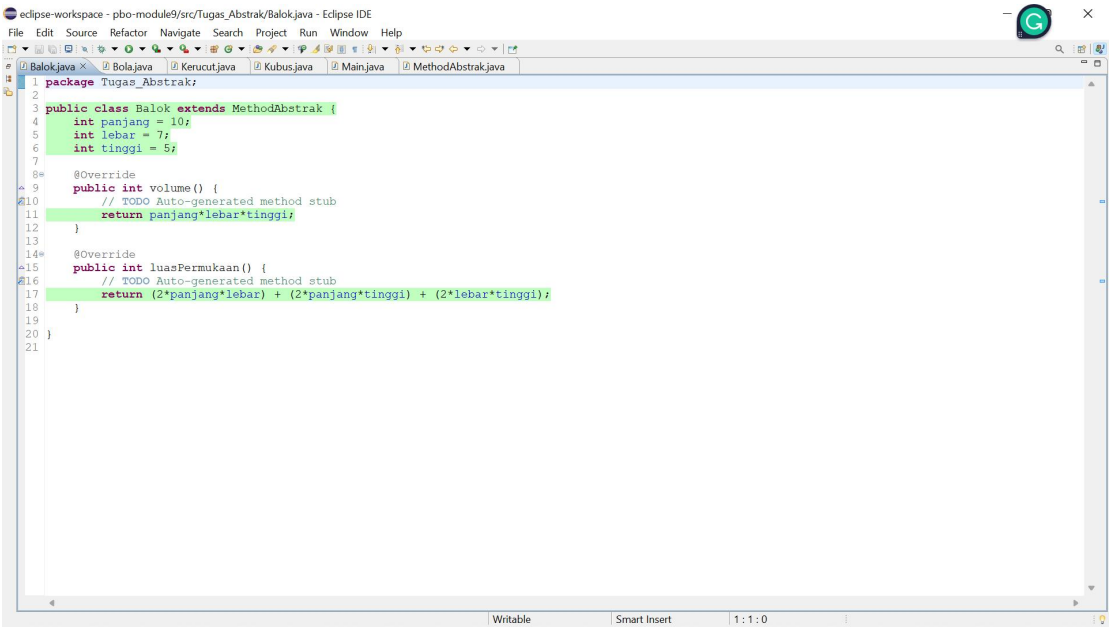
Method Abstrak



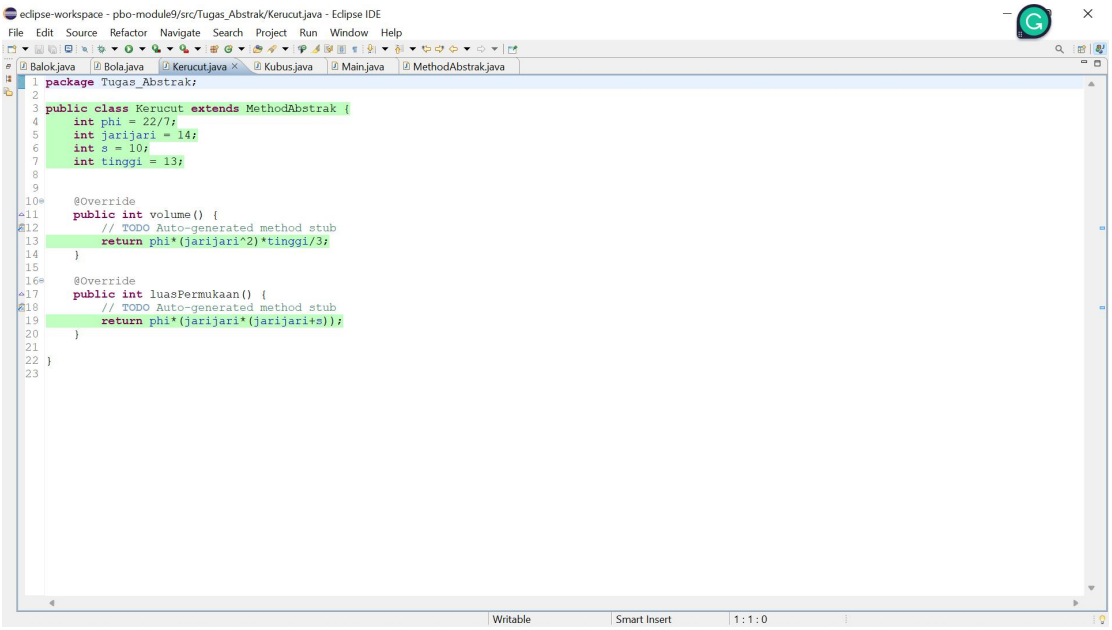
Balok



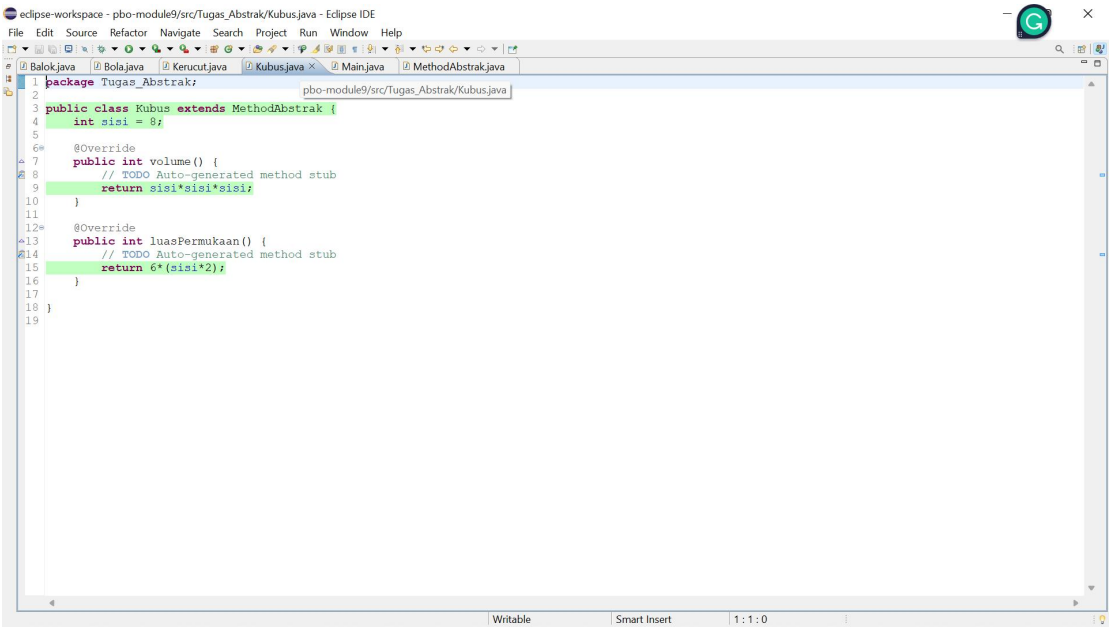
Bola



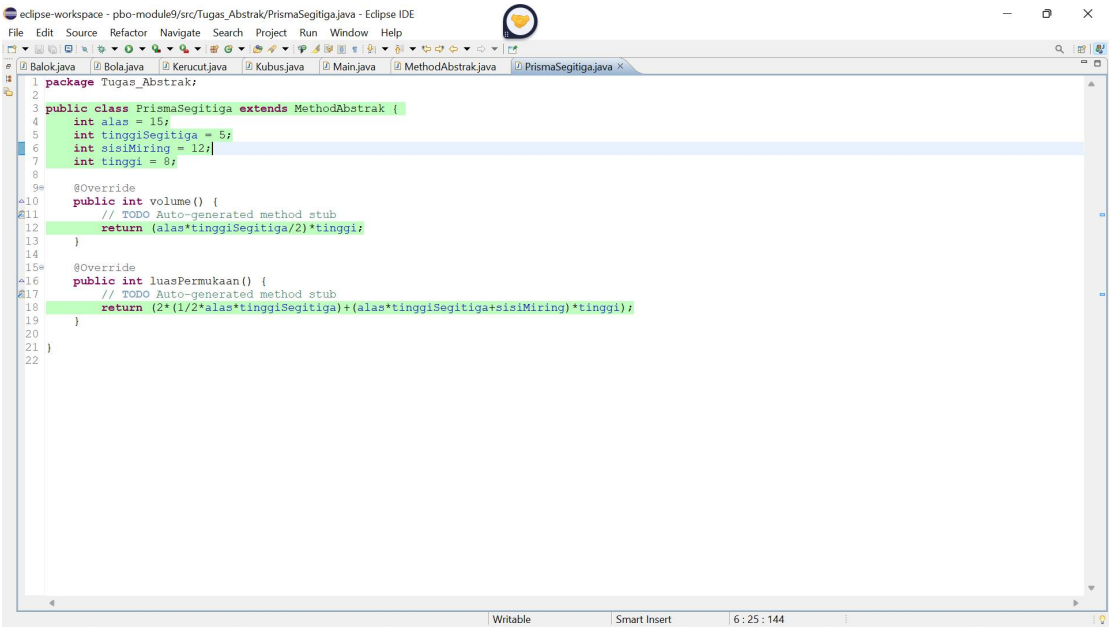
Kerucut



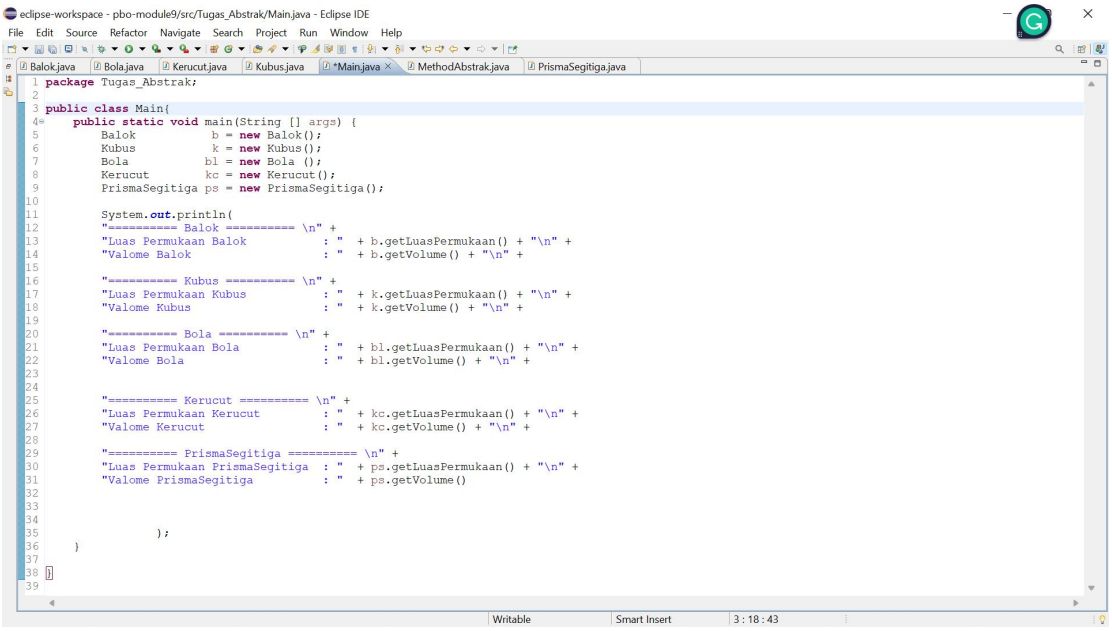
Kubus



Prisma Segitiga


eclipse-workspace - pbo-module9/src/Tugas_Abstrak/PrismaSegitiga.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Balok.java Bola.java Kerucut.java Kubus.java Main.java MethodAbstrak.java PrismaSegitiga.java
1 package Tugas_Abstrak;
2
3 public class PrismaSegitiga extends MethodAbstrak {
4 int alas = 15;
5 int tinggiSegitiga = 5;
6 int sisiMiring = 12;
7 int tinggi = 8;
8
9 @Override
10 public int volume() {
11 // TODO Auto-generated method stub
12 return (alas*tinggiSegitiga/2)*tinggi;
13 }
14
15 @Override
16 public int luasPermukaan() {
17 // TODO Auto-generated method stub
18 return (2*(1/2*alas*tinggiSegitiga)+(alas*tinggiSegitiga+sisiMiring)*tinggi);
19 }
20
21 }
22
Writable
Smart Insert
6 : 25 : 144

Main


eclipse-workspace - pbo-module9/src/Tugas_Abstrak/Main.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Balok.java Bola.java Kerucut.java Kubus.java *Main.java MethodAbstrak.java PrismaSegitiga.java
1 package Tugas_Abstrak;
2
3 public class Main{
4 public static void main(String [] args) {
5 Balok b = new Balok();
6 Kubus k = new Kubus();
7 Bola bl = new Bola ();
8 Kerucut kc = new Kerucut();
9 PrismaSegitiga ps = new PrismaSegitiga();
10
11 System.out.println(
12 "========== Balok ========== \n" +
13 "Luas Permukaan Balok : " + b.getLuasPermukaan() + "\n" +
14 "Valome Balok : " + b.getVolume() + "\n" +
15
16 "========== Kubus ========== \n" +
17 "Luas Permukaan Kubus : " + k.getLuasPermukaan() + "\n" +
18 "Valome Kubus : " + k.getVolume() + "\n" +
19
20 "========== Bola ========== \n" +
21 "Luas Permukaan Bola : " + bl.getLuasPermukaan() + "\n" +
22 "Valome Bola : " + bl.getVolume() + "\n" +
23
24
25 "========== Kerucut ========== \n" +
26 "Luas Permukaan Kerucut : " + kc.getLuasPermukaan() + "\n" +
27 "Valome Kerucut : " + kc.getVolume() + "\n" +
28
29 "========== PrismaSegitiga ========== \n" +
30 "Luas Permukaan PrismaSegitiga : " + ps.getLuasPermukaan() + "\n" +
31 "Valome PrismaSegitiga : " + ps.getVolume()
32
33
34
35);
36 }
37
38 }
39
Writable
Smart Insert
3 : 18 : 43

Output:

```
<terminated> Main (6) [Java Application] C:\Users\Asus\.p2\p
========== Balok ==========
Luas Permukaan Balok           : 310
Valome Balok                   : 350
========== Kubus ==========
Luas Permukaan Kubus           : 96
Valome Kubus                   : 512
========== Bola ==========
Luas Permukaan Bola            : 576
Valome Bola                    : 147
========== Kerucut ==========
Luas Permukaan Kerucut         : 1008
Valome Kerucut                 : 156
========== PrismaSegitiga ==========
Luas Permukaan PrismaSegitiga  : 696
Valome PrismaSegitiga          : 296
```