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Source Code

No	Kalkulator.java

```
1.  import java.util.Scanner;
2.
3.
4.  public class Kalkulator {
5.    public static void main(String[] args) {
6.      Scanner input = new Scanner(System.in);
7.
8.
9.      System.out.println("Input two integers:");
10.     System.out.print("First number:");
11.     double firstNumber = input.nextDouble();
12.     System.out.print("Second number:");
13.     double secondNumber = input.nextDouble();
14.
15.     System.out.println("Choose the operation:");
16.     System.out.println("1. Add");
17.     System.out.println("2. Subtract");
18.     System.out.println("3. Multiply");
19.     System.out.println("4. Divide");
20.     System.out.print("Your choice: ");
21.     int operation = input.nextInt();
22.     input.close();
23.
24.     switch (operation) {
25.       case 1:
26.         System.out.println(
27.             "The result of adding " + firstNumber + " and " + secondNumber
28. + " is " + (firstNumber + secondNumber));
29.         break;
30.       case 2:
31.         System.out.println(
32.             "The result of subtracting " + firstNumber + " and " +
33. secondNumber + " is "
34.                 + (firstNumber - secondNumber));
35.         break;
36.       case 3:
37.         System.out.println("The result of multiplying " + firstNumber + "
38. and " + secondNumber + " is "
39.             + (firstNumber * secondNumber));
40.
41.
42.
43.
44.
45.
46.
47.
48.
49.
50.
51.
52.
```

```
53.         break;
54.
55.       case 4:
56.         System.out.println("The result of dividing " + firstNumber + " and
57. " + secondNumber + " is "
58.
59.             + (firstNumber / secondNumber));
60.         break;
61.
62.       default:
63.         System.out.println("Invalid Choice");
64.
65.         break;
66.     }
67.   }
68. }
69.
```

Source Code

No	Volume.java

```
1.  import java.util.Scanner;
2.
3.
4.  public class Volume {
5.    public static void main(String[] args) {
6.
7.      Scanner input = new Scanner(System.in);
8.
9.
10.     System.out.println("Choose one of 3 dimensional shape below:");
11.     System.out.println("1. Cube");
12.     System.out.println("2. Rectangular Cube");
13.     System.out.println("3. Cylinder");
14.     System.out.print("Your choice: ");
15.     int shape = input.nextInt();
16.
17.
18.     System.out.println("Select the length units:");
19.     System.out.println("1. Milimeter");
20.     System.out.println("2. Centimeter");
21.     System.out.println("3. Meter");
22.     System.out.print("Your choice: ");
23.     int lengthUnitChoice = input.nextInt();
24.     String lengthUnit = "";
25.
26.
27.     switch (lengthUnitChoice) {
28.       case 1:
29.         lengthUnit = "mm";
30.         break;
31.
32.       case 2:
33.         lengthUnit = "cm";
34.         break;
35.       case 3:
36.         lengthUnit = "m";
37.         break;
38.       default:
39.         System.out.println("Invalid Choice");
40.         break;
41.     }
42.
43.     switch (shape) {
44.       case 1:
45.
46.
47.
48.
49.
50.
51.
52.
53.
54.
55.
56.
57.
```

```
58.
59.           System.out.print("Enter side length: ");
60.           double side = input.nextDouble();
61.           System.out.println("The volume of the cube is " + (side * side *
62. side) + " " + lengthUnit);
63.           break;
64.         case 2:
65.           System.out.print("Enter the length: ");
66.           double length = input.nextDouble();
67.           System.out.print("Enter the width: ");
68.           double width = input.nextDouble();
69.           System.out.print("Enter the height: ");
70.           double height = input.nextDouble();
71.           System.out.println("The volume of the rectangular cube is " +
72. (length * width * height) + " " + lengthUnit);
73.           break;
74.         case 3:
75.           System.out.print("Enter the radius: ");
76.           double radius = input.nextDouble();
77.           System.out.print("Enter the height: ");
78.           height = input.nextDouble();
79.           System.out
80.               .println("The volume of the cylinder is " + (3.14f * radius *
81. radius * height) + " " + lengthUnit);
82.           break;
83.         default:
84.           System.out.println("Invalid Choice");
85.           break;
86.       }
87.       input.close();
88.     }
89.
90. }
```

Screenshot Kalkulator.java

```
Input two integers:
First number:20
Second number:20
Choose the operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Your choice: 1
The result of adding 20.0 and 20.0 is 40.0
```

```
Input two integers:
First number:20
Second number:30
Choose the operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Your choice: 2
The result of subtracting 20.0 and 30.0 is -10.0
```

```
Input two integers:
First number:20
Second number:2
Choose the operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Your choice: 3
The result of multiplying 20.0 and 2.0 is 40.0
```

```
Input two integers:
First number:20
Second number:2
Choose the operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Your choice: 4
The result of dividing 20.0 and 2.0 is 10.0
```

Screenshot Volume.java

```
Choose one of 3 dimensional shape below:
1. Cube
2. Rectangular Cube
3. Cylinder
Your choice: 1
Select the length units:
1. Milimeter
2. Centimeter
3. Meter
Your choice: 1
Enter side length: 25
The volume of the cube is 15625.0 mm
```

```
Choose one of 3 dimensional shape below:
1. Cube
2. Rectangular Cube
3. Cylinder
Your choice: 2
Select the length units:
1. Milimeter
2. Centimeter
3. Meter
Your choice: 2
Enter the length: 10
Enter the width: 20
Enter the height: 5
The volume of the rectangular cube is 1000.0 cm
```

```
Choose one of 3 dimensional shape below:
1. Cube
2. Rectangular Cube
3. Cylinder
Your choice: 3
Select the length units:
1. Milimeter
2. Centimeter
3. Meter
Your choice: 3
Enter the radius: 14
Enter the height: 10
The volume of the cylinder is 6154.400205612183 m
```

Penjelasan

Kalkulator.java

No.	Deskripsi
1	Mendeklarasikan impor untuk mengimpor kelas Scanner dari paket java.util, yang akan digunakan untuk mengambil input dari pengguna.
4-5	Pembuatan class Kalkulator dan main function.
7	Membuat objek Scanner bernama input untuk mengambil input dari pengguna melalui konsol.
10-15	Mendapatkan input angka pertama dan angka kedua dari pengguna melalui console dan disimpan ke variabel firstNumber dan secondNumber bertipe data double.
18-28	Mendapatkan input operasi yang akan dilakukan dan disimpan ke variabel operation lalu menutup objek Scanner .
31	Memulai blok switch-case untuk mengevaluasi nilai operation
32-60	Menghitung dan mencetak hasil operasi sesuai dengan operasi yang dipilih sebelumnya
61-64	Jika operation tidak sama dengan 1, 2, 3, atau 4, cetak "Invalid Choice".

Volume.java

No.	Deskripsi
1	Mendeklarasikan impor untuk mengimpor kelas Scanner dari paket java.util, yang akan digunakan untuk mengambil input dari pengguna.
4-5	Pembuatan class Kalkulator dan main function.
7	Membuat objek Scanner bernama input untuk mengambil input dari pengguna melalui konsol.
10-17	Mendapatkan input bangun ruang yang akan dihitung volumenya dari pengguna melalui console dan disimpan ke variabel shape
19-27	Mendapatkan input ukuran satuan yang akan digunakan lalu disimpan ke variabel lengthUnitChoice
31-52	Operasi switch-case yang mengevaluasi nilai lengthUnitChoice untuk mengubah ukuran satuan menjadi string
54-90	Menghitung dan mencetak hasil volume sesuai dengan bangun ruang yang dipilih sebelumnya.
92-95	Jika shape tidak sama dengan 1, 2, 3, atau 4, cetak "Invalid Choice".
98	Menutup objek Scanner setelah selesai penggunaan.