

Volumecalculator.java - Spring Tool Suite 4

Window Help

Volumecalculator.java X

```
1 package overload; // Place the package declaration at the top
2
3 import java.util.Scanner; // Correctly placed import for Scanner class
4
5 public class Volumecalculator { // Capitalized class name as per Java conventions
6
7     // Method to calculate the volume of a sphere
8     public double volume(double r) {
9         // Formula: V = (4 / 3) * π * r^3
10        return (4.0 / 3.0) * Math.PI * Math.pow(r, 3); // Use Math.pow for r^3
11    }
12
13    // Method to calculate the volume of a cylinder
14    public double volume(double h, double r) {
15        // Formula: V = π * r^2 * h
16        return Math.PI * Math.pow(r, 2) * h; // Use Math.pow for r^2
17    }
18
19    // Method to calculate the volume of a cuboid
20    public double volume(double l, double b, double h) {
21        // Formula: V = l * b * h
22        return l * b * h;
23    }
24
25    public static void main(String[] args) {
26        // Create a Scanner object to get user input
27        Scanner scanner = new Scanner(System.in);
28
29        // Create an instance of the Volumecalculator class to access the volume methods
30        Volumecalculator vCalc = new Volumecalculator();
31
32        // Method to calculate the volume of a sphere
33        double r = scanner.nextDouble();
34        double vSphere = vCalc.volume(r);
35        System.out.println("Volume of the sphere: " + vSphere);
36
37        // Method to calculate the volume of a cylinder
38        double h = scanner.nextDouble();
39        double r = scanner.nextDouble();
40        double vCylinder = vCalc.volume(h, r);
41        System.out.println("Volume of the cylinder: " + vCylinder);
42
43        // Method to calculate the volume of a cuboid
44        double l = scanner.nextDouble();
45        double b = scanner.nextDouble();
46        double h = scanner.nextDouble();
47        double vCuboid = vCalc.volume(l, b, h);
48        System.out.println("Volume of the cuboid: " + vCuboid);
49    }
50 }
```

Outline X

- overload
 - Volumecalculator
 - volume(double): double
 - volume(double, double): double
 - volume(double, double, double): double
 - main(String[]): void

Problems Javadoc Declaration Console X

<terminated> Volumecalculator [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32

Enter the radius of the sphere: 3
Volume of the sphere: 113.09733552923254
Enter the radius and height of the cylinder: 3 5
Volume of the cylinder: 141.3716694115407
Enter the length, breadth, and height of the cuboid: 4 7 3
Volume of the cuboid: 84.0

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voidcalculate.java X

```
45     } else if (cost > 10000 && cost <= 20000) {
46         dis = cost * 0.10; // 10% discount
47     } else if (cost > 20000 && cost <= 35000) {
48         dis = cost * 0.15; // 15% discount
49     } else {
50         dis = cost * 0.20; // 20% discount
51     }
52
53     // Calculating the final amount after discount
54     amount = cost - dis;
55 }
56
57 // Method to display customer details and amount to be paid
58 public void display() {
59     System.out.println("\n--- Customer Details ---");
60     System.out.println("Customer Name: " + name);
61     System.out.println("Mobile Number: " + mobno);
62     System.out.println("Amount to be paid after discount: Rs. " + amount);
63 }
64
65 // Main method to create an object and call methods
66 public static void main(String[] args) {
67     // Create an instance of ShowRoom class
68     voidcalculate customer = new voidcalculate();
69
70     // Call input, calculate, and display methods
71     customer.input();
72     customer.calculate();
73     customer.display();
74 }
75 }
76
```

Outline X

```
variables
voidcalculate
  ▲ name : String
  ▲ mobno : long
  ▲ cost : double
  ▲ dis : double
  ▲ amount : double
  ● voidcalculate()
  ● input() : void
  ● calculate() : void
  ● display() : void
  ● *main(String[]) : void
```

Problems @ Javadoc Declaration Console X

<terminated> voidcalculate [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64

Enter the cost of items purchased: 12008

--- Customer Details ---

Customer Name: josefin

Mobile Number: 8795632531

Amount to be paid after discount: Rs. 10807.2

```

30 public class students {
31     public static void main(String[] args) {
32         // Scanner object to take input from the user
33         Scanner scanner = new Scanner(System.in);
34
35         // Array to store 5 Student objects
36         Student[] students = new Student[5];
37
38         // Input details for 5 students
39         for (int i = 0; i < 5; i++) {
40             System.out.println("Enter details for student " + (i + 1) + ":");
41
42             System.out.print("Enter name: ");
43             String name = scanner.nextLine();
44
45             System.out.print("Enter roll number: ");
46             int rollNo = scanner.nextInt();
47
48             System.out.print("Enter age: ");
49             int age = scanner.nextInt();
50
51             System.out.print("Enter marks: ");
52             double marks = scanner.nextDouble();
53             scanner.nextLine(); // Consume the newline character after nextDouble()
54
55             // Create a new Student object and store it in the array
56             students[i] = new Student(name, rollNo, age, marks);
57
58             System.out.println(); // For better readability between entries
59         }
60
61         // Display details of all students

```

```

oops
Student
  name : String
  rollNo : int
  age : int
  marks : double
  Student(String, int, int, double)
  display() : void
students

```

<terminated> students [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21

Enter details for student 1:

Enter name: josefin

Enter roll number: 31

Enter age: 21

Enter marks: 90.5

Window Help

Employee.java Main.java x

```
1 package lab6;
2
3 public class Main {
4
5     // Main class with the main method
6     public static void main(String[] args) {
7         // Creating an Employee object
8         Employee emp = new Employee("Josefin", 101);
9         emp.display();
10        System.out.println();
11
12        // Creating a Faculty object (which is a type of Employee)
13        Faculty faculty = new Faculty("Josefin", 102, "Computer Science", "Data Structures");
14        faculty.display();
15    }
16 }
17
18
19
```

Outline x

- lab6
 - Main
 - main(String[]): void

@ Javadoc Declaration Console x

<terminated> Main [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.21.0.4

Employee ID: 101

Employee Name: josefin
Employee ID: 102
Department: Computer Science
Subject Specialization: Data Structures

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