

```
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        // Variables to hold user inputs
```

Outline ×

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

Problems @ Javadoc Declaration Console ×

```
<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.x86_64.jre\bin\java.exe
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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```

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

```

```

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

```

Amount to be paid after discount: Rs. 22100.0

68 : 54 : 2259

students.java - Spring Tool Suite 4

Window Help

voidcalculate.java

students.java

```
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
62 System.out.println("\n--- Student Details ---");
63 for (int i = 0; i < 5; i++) {
64     students[i].display();
65 }
```

Outline

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

Problems @ Javadoc Declaration Console

<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 3:

Enter name: rasika

Enter roll number: 57

Enter age: 91.3

```
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("rasika", 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("rasika", 102, "Computer Science", "Data Structures");
14        faculty.display();
15    }
16 }
17
18
19
```

Outline ×

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

@ Javadoc Declaration Console ×

<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: rasika
Employee ID: 102
Department: Computer Science
Subject Specialization: Data Structures

Writable

Smart Insert

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