Outline ×

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

Volumecalculator.java ×

```java
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
```

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.x

```
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
```

voidcalculate.java ×

```java
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 ×

- 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 ×

```
<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.x8
Enter the cost of items purchased: 190000

--- Customer Details ---
Customer Name: rindhiya
Mobile Number: 9685472314
Amount to be paid after discount: Rs. 152000.0
```
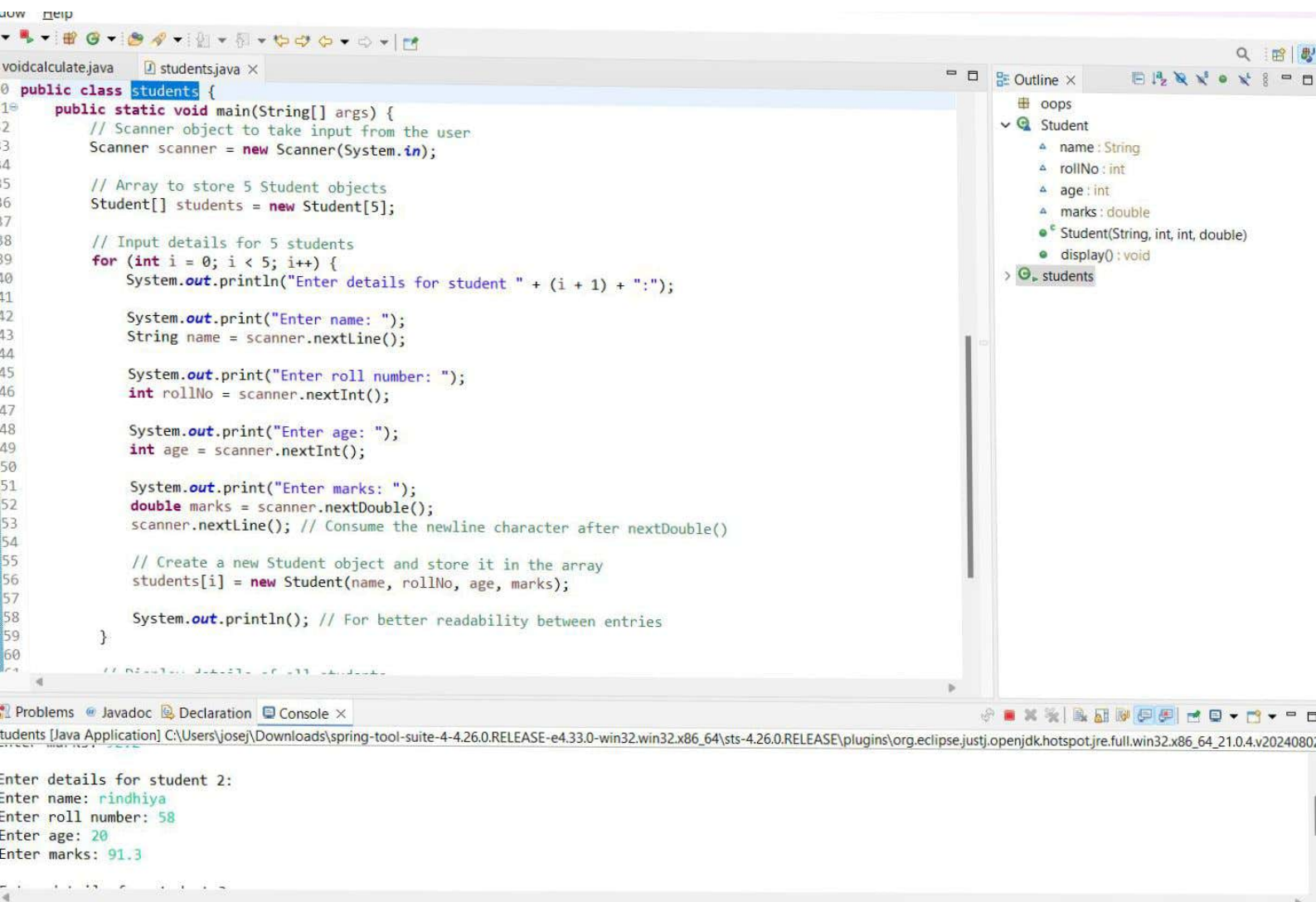
voidcalculate.java   students.java ×

```java
public class students {
    public static void main(String[] args) {
        // Scanner object to take input from the user
        Scanner scanner = new Scanner(System.in);

        // Array to store 5 Student objects
        Student[] students = new Student[5];

        // Input details for 5 students
        for (int i = 0; i < 5; i++) {
            System.out.println("Enter details for student " + (i + 1) + ":");

            System.out.print("Enter name: ");
            String name = scanner.nextLine();

            System.out.print("Enter roll number: ");
            int rollNo = scanner.nextInt();

            System.out.print("Enter age: ");
            int age = scanner.nextInt();

            System.out.print("Enter marks: ");
            double marks = scanner.nextDouble();
            scanner.nextLine(); // Consume the newline character after nextDouble()

            // Create a new Student object and store it in the array
            students[i] = new Student(name, rollNo, age, marks);

            System.out.println(); // For better readability between entries
        }

        // Display details of all students
```

Outline ×

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

Problems Javadoc Declaration Console ×

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_21.0.4.v20240802

```
Enter details for student 2:
Enter name: rindhiya
Enter roll number: 58
Enter age: 20
Enter marks: 91.3
```

Window   Help

Employee.java   Main.java ×

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

Outline ×

⊞ lab6
⌄ ⊙ Main
   • ⁵ 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: rindhiya
Employee ID: 102
Department: Computer Science
Subject Specialization: Data Structures