

## Test question

1. create box class width,height,width and one more method volume method define in class and box class is volume class box weight is another subclass and another one is shipment with one data member as cost calculate the volume of the box in java program.

```
class Box {
    double width, height, depth;
    Box(double width, double height, double depth) {
        this.width = width;
        this.height = height;
        this.depth = depth;
    }

    // Method to calculate the volume of the box
    double volume() {
        return width * height * depth;
    }
}

class BoxWeight extends Box {
    double weight;

    // Constructor
    BoxWeight(double width, double height, double depth, double weight) {
        super(width, height, depth);
        this.weight = weight;
    }
}

class Shipment extends BoxWeight {
    double cost;

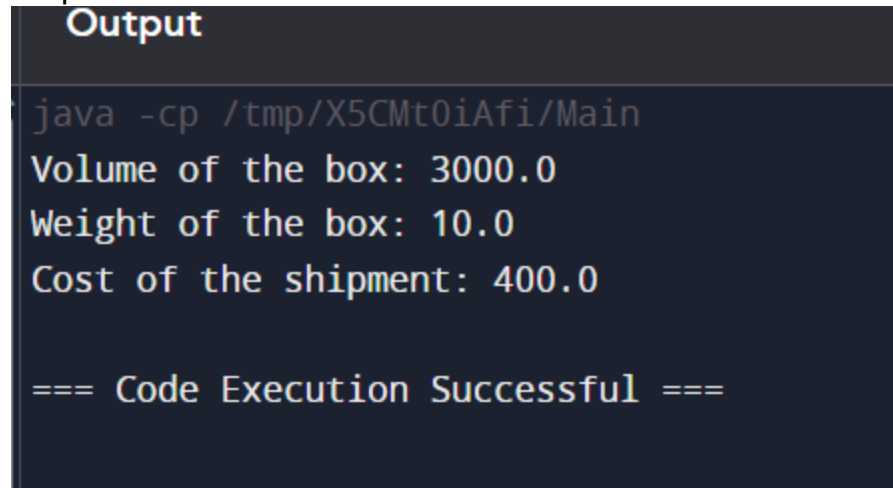
    Shipment(double width, double height, double depth, double weight, double cost) {
        super(width, height, depth, weight);
        this.cost = cost;
    }
}

public class Main {
    public static void main(String[] args) {
        // Create a Shipment object
        Shipment shipment = new Shipment(10, 20, 15, 10, 300);

        // Calculate the volume
```

```
double volume = shipment.volume();  
System.out.println("Volume of the box: " + volume);  
System.out.println("Weight of the box: " + shipment.weight);  
System.out.println("Cost of the shipment: " + shipment.cost);  
}  
}
```

Output:



```
Output  
java -cp /tmp/X5CMt0iAfi/Main  
Volume of the box: 3000.0  
Weight of the box: 10.0  
Cost of the shipment: 400.0  
  
=== Code Execution Successful ===
```