CLASS TEST 30.7.24

1. Create box class with data member width height depth it has one more method volume method declare and define in the box class 3 subclass with box parent 1sr sub class box weight 2nd box 2nd sub shipment one data member called cost calculate the volume of the box and box weight call superclass and print weight and then shipment call superclass and print cost

CODE:

```
class Box {
   double width, height, depth;

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

   double volume() {
      return width * height * depth;
   }
}

class BoxWeight extends Box {
   double weight;

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

```
    void displayWeight() {
        System.out.println("Weight: " + weight + " kg");
    }
}

class BoxShipment extends Box {
    double cost;

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

    void displayCost() {
        System.out.println("Cost: $" + cost);
    }
}

class BoxCost extends BoxWeight {
    double cost;

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

    void displayDetails() {
        System.out.println("Volume: " + volume() + " cubic units");
        displayWeight();
        System.out.println("Cost: $" + cost);
```

```
    }
}

public class Main {
    public static void main(String[] args) {
        BoxCost box = new BoxCost(2, 3, 4, 5, 100);
        box.displayDetails();
    }
}
```

OUTPUT: