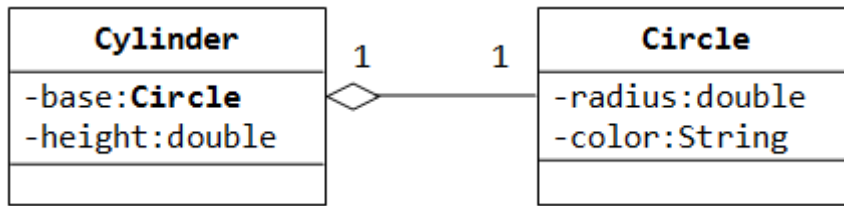


5.2 Ex: The Circle and Cylinder Classes Using Composition



Try rewriting the Circle-Cylinder of the previous exercise using *composition* (as shown in the class diagram) instead of *inheritance*. That is, "a cylinder is composed of a base circle and a height".

```
public class Cylinder {
    private Circle base;    // Base circle, an instance of Circle class
    private double height;

    // Constructor with default color, radius and height
    public Cylinder() {
        base = new Circle(); // Call the constructor to construct the Circle
        height = 1.0;
    }
    .....
}
```

Which design (inheritance or composition) is better?