Java Implementation Question: Simple Inheritance with Flower Example

Problem Statement:

Create a base class (`Flower`) that contains common properties such as:
- `name` (flower's name)
- `color` (flower's color)
- `hasFragrance` (whether the flower has a fragrance or not)

Then, create two subclasses (`Rose` and `Lily`) that inherit properties from `Flower` and add their own specific characteristics:

1. `Rose` class should have an extra property `hasThorns` (to check if the rose has thorns).
2. `Lily` class should have an extra property `isWaterPlant` (to check if the lily grows in water).

Write a Java program that allows creating objects of `Rose` and `Lily`, setting their properties, and displaying the details.

Sample Input & Output:

Input:

The program should create a `Rose` and a `Lily` object with the following properties:
- Rose: Red, has fragrance, has thorns
- Lily: White, has fragrance, grows in water

Output:

```
---- Rose Details ----
Flower Name: Rose
Color: Red
Has Fragrance: Yes
Has Thorns: Yes

---- Lily Details ----
Flower Name: Lily
Color: White
Has Fragrance: Yes
Grows in Water: Yes
```

```java
class Flower {
    String name;
    String color;
    boolean hasFragrance;

    public Flower(String name, String color, boolean hasFragrance) {
        this.name = name;
        this.color = color;
        this.hasFragrance = hasFragrance;
    }
}

class Rose extends Flower {
    boolean hasThorns;

    public Rose(String name, String color, boolean hasFragrance, boolean hasThorns) {
        super(name, color, hasFragrance);
        this.hasThorns = hasThorns;
    }
}

class Lily extends Flower {
    boolean growsInWater;

    public Lily(String name, String color, boolean hasFragrance, boolean growsInWater) {
        super(name, color, hasFragrance);
        this.growsInWater = growsInWater;
    }
}

public class FlowerDemo {
    public static void main(String[] args) {
        Rose rose = new Rose("Rose", "Red", true, true);
        Lily lily = new Lily("Lily", "White", true, true);

        System.out.println("---- Rose Details ----");
        System.out.println("Flower Name: " + rose.name);
        System.out.println("Color: " + rose.color);
        System.out.println("Has Fragrance: " + (rose.hasFragrance ? "Yes" : "No"));
        System.out.println("Has Thorns: " + (rose.hasThorns ? "Yes" : "No"));
        System.out.println();

        System.out.println("---- Lily Details ----");
        System.out.println("Flower Name: " + lily.name);
        System.out.println("Color: " + lily.color);
        System.out.println("Has Fragrance: " + (lily.hasFragrance ? "Yes" : "No"));
        System.out.println("Grows in Water: " + (lily.growsInWater ? "Yes" : "No"));
    }}
```

Output:

---- Rose Details ----
Flower Name: Rose
Color: Red
Has Fragrance: Yes
Has Thorns: Yes

---- Lily Details ----
Flower Name: Lily
Color: White
Has Fragrance: Yes
Grows in Water: Yes

```java
class Flower {
    String name;
    String color;
    boolean hasFragrance;

    public Flower(String name, String color, boolean hasFragrance) {
        this.name = name;
        this.color = color;
        this.hasFragrance = hasFragrance;
    }
}

class Rose extends Flower {
    boolean hasThorns;

    public Rose(String name, String color, boolean hasFragrance, boolean hasThorns) {
        super(name, color, hasFragrance);
        this.hasThorns = hasThorns;
    }
}

class Lily extends Flower {
    boolean growsInWater;

    public Lily(String name, String color, boolean hasFragrance, boolean growsInWater) {
        super(name, color, hasFragrance);
        this.growsInWater = growsInWater;
    }
}

public class FlowerDemo {
    public static void main(String[] args) {
        Rose rose = new Rose("Rose", "Red", true, true);
        Lily lily = new Lily("Lily", "White", true, true);

        System.out.println("---- Rose Details ----");
        System.out.println("Flower Name: " + rose.name);
        System.out.println("Color: " + rose.color);
        System.out.println("Has Fragrance: " + (rose.hasFragrance ? "Yes" : "No"));
        System.out.println("Has Thorns: " + (rose.hasThorns ? "Yes" : "No"));
        System.out.println();

        System.out.println("---- Lily Details ----");
        System.out.println("Flower Name: " + lily.name);
        System.out.println("Color: " + lily.color);
        System.out.println("Has Fragrance: " + (lily.hasFragrance ? "Yes" : "No"));
        System.out.println("Grows in Water: " + (lily.growsInWater ? "Yes" : "No"));
    }
}
```

```
---- Rose Details ----
Flower Name: Rose
Color: Red
Has Fragrance: Yes
Has Thorns: Yes

---- Lily Details ----
Flower Name: Lily
Color: White
Has Fragrance: Yes
Grows in Water: Yes


...Program finished with exit code 0
Press ENTER to exit console.
```