

## 1 Révision du cours

- DRY : Do not Repeat Yourself
- DOT : Do One Thing
- KISS : Keep It Simple, Stupid
- SRP : Single Responsibility Principle

## 2 Public, private, final

- `bodyColor` : publique et immutable
- `currentSpeed` : privée et mutable
- `gasolineLevel` : privée et mutable
- `licensePlate` : publique et immutable
- `turnSignalState` : privée et mutable (avec l'ajout d'un accesseur publique)

## 3 Flacons

```
public class Bottle {
    public final double capacity;
    private double totalVolume;
    private double concentration;
    public final String label;

    public Bottle(double capacity,
                  double totalVolume,
                  double concentration,
                  String label) {
        this.capacity = capacity;
        this.totalVolume = totalVolume;
        this.concentration = concentration;
        this.label = label;
    }

    private double getSyrupVolume(){
        return concentration * totalVolume;
    }

    void pourLiquid(double volume, double concentration){
        double newSyrupVolume = getSyrupVolume()
            + concentration*volume;
        this.totalVolume += volume;
        this.concentration = newSyrupVolume/totalVolume;
    }
}
```

```
public void pourSyrup(double volume){
    pourLiquid(volume,1);
}

public void pourWater(double volume){
    pourLiquid(volume, 0);
}

public void transvase(Bottle pouringBottle, double volume){
    volume = pouringBottle.drink(volume);
    this.pourLiquid(volume, pouringBottle.concentration);
}

public double drink(double volume){
    volume = Math.min(volume, this.totalVolume);
    this.totalVolume -= volume;
    return volume;
}

public String toString(){
    return "Étiquette : " + this.label + " Volume : "
        + this.totalVolume + " Concentration "+
        this.concentration;
}

}
```