

Design Pattern

Builder

```
public class Cake {
    private double sugar = 0;
    private double butter = 0;
    private int eggs = 0;
    private int vanilla = 0;
    private double flour = 0;
    private double bakingPowder = 0;
    private double milk = 0;
    private int cherry = 0;

    private Cake(Builder builder) {
        sugar = builder.sugar;
        butter = builder.butter;
        eggs = builder.eggs;
        vanilla = builder.vanilla;
        flour = builder.flour;
        bakingPowder = builder.bakingPowder;
        milk = builder.milk;
        cherry = builder.cherry;
    }

    public static class Builder {
        private double sugar;
        private double butter;
        private int eggs;
        private int vanilla;
        private double flour;
        private double bakingPowder;
        private double milk;
        private int cherry;

        public Builder sugar(double cup) {
            sugar = cup;
            return this;
        }

        public Builder butter(double cup) {
            butter = cup;
            return this;
        }

        public Builder eggs(int number) {
            eggs = number;
            return this;
        }

        public Builder vanilla(int spoon) {
            vanilla = spoon;
            return this;
        }

        public Builder flour(double cup) {
            flour = cup;
            return this;
        }
    }
}
```

```

    public Builder bakingPowder(double spoon) {
        sugar = spoon;
        return this;
    }

    public Builder milk(double cup) {
        milk = cup;
        return this;
    }

    public Builder cherry(int number) {
        cherry = number;
        return this;
    }

    public Cake build() {
        return new Cake(this);
    }
}

public String toString() {
    StringBuilder stringBuilder = new StringBuilder();
    stringBuilder.append("Cake { ");
    stringBuilder.append("sugar = ").append(sugar).append(", ");
    stringBuilder.append("butter = ").append(butter).append(", ");
    stringBuilder.append("eggs = ").append(eggs).append(", ");
    stringBuilder.append("vanilla = ").append(vanilla).append(", ");
    stringBuilder.append("flour = ").append(flour).append(", ");
    stringBuilder.append("bakingpowder = ")
        .append(bakingPowder).append(", ");
    stringBuilder.append("milk = ").append(milk).append(", ");
    stringBuilder.append("cherry = ").append(cherry).append(" }");
    return stringBuilder.toString();
}

}

public class Application {
    public static void main(String... args) {
        Cake whiteCake = new Cake.Builder().sugar(1)
            .butter(0.5)
            .eggs(2)
            .vanilla(2)
            .flour(1.5)
            .bakingPowder(0.75)
            .milk(0.5)
            .build();

        System.out.println(whiteCake);
    }
}

```