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Builder in *Java*

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Another Builder Java example

```java
/* "Product" */
class Pizza {
    private String dough = "";
    private String sauce = "";
    private String topping = "";

    public void setDough(String dough) {
        this.dough = dough;
    }

    public void setSauce(String sauce) {
        this.sauce = sauce;
    }

    public void setTopping(String topping) {
        this.topping = topping;
    }
}

/* "Abstract Builder" */
abstract class PizzaBuilder {
    protected Pizza pizza;

    public Pizza getPizza() {
        return pizza;
    }

    public void createNewPizzaProduct() {
        pizza = new Pizza();
    }

    public abstract void buildDough();
    public abstract void buildSauce();
    public abstract void buildTopping();
}

/* "ConcreteBuilder" */
class HawaiianPizzaBuilder extends PizzaBuilder {
    public void buildDough() {
        pizza.setDough("cross");
    }

    public void buildSauce() {
        pizza.setSauce("mild");
    }

    public void buildTopping() {
        pizza.setTopping("ham+pineapple");
    }
}

/* "ConcreteBuilder" */
class SpicyPizzaBuilder extends PizzaBuilder {
    public void buildDough() {
        pizza.setDough("pan baked");
    }

    public void buildSauce() {
        pizza.setSauce("hot");
    }

    public void buildTopping() {
        pizza.setTopping("pepperoni+salami");
    }
}

/* "Director" */
class Waiter {
    private PizzaBuilder pizzaBuilder;

    public void setPizzaBuilder(PizzaBuilder pb) {
        pizzaBuilder = pb;
    }

    public Pizza getPizza() {
        return pizzaBuilder.getPizza();
    }

    public void constructPizza() {
        pizzaBuilder.createNewPizzaProduct();
        pizzaBuilder.buildDough();
        pizzaBuilder.buildSauce();
        pizzaBuilder.buildTopping();
    }
}

/* A customer ordering a pizza. */
public class PizzaBuilderDemo {
    public static void main(String[] args) {
        Waiter waiter = new Waiter();
        PizzaBuilder hawaiianPizzabuilder = new HawaiianPizzaBuilder();
        PizzaBuilder spicyPizzaBuilder = new SpicyPizzaBuilder();

        waiter.setPizzaBuilder( hawaiianPizzabuilder );
        waiter.constructPizza();

        Pizza pizza = waiter.getPizza();
        }
    }
```

Code examples

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