Design Pattern 1 - Template Pattern

This pattern is based on the existence of a superclass and several subclasses extended from that superclass. This pattern is used when there are several similar objects do the same things but in a different way, e.g. abstract class with one or more abstract methods that are implemented in the respective subclasses each in a different way.

This pattern saves a few lines of code and provides an understandable code without repeated methods.

Code Snippet

public class SpaghettiMeatballs extends PastaDish {

public void addPasta() {

System.out.println("Add spaghetti");

}

public void addProtein() {

System.out.println("Add meatballs");

}

public void addSauce() {

System.out.println("Add tomato sauce");

}

public void addGarnish() {

System.out.println("Add Parmesan cheese");

}

}

public abstract class PastaDish {

final void makeRecipe() {

boilWater();

addPasta();

cookPasta();

drainAndPlate();

addSauce();

addProtein();

addGarnish();

}

abstract void addPasta();

abstract void addSauce();

abstract void addProtein();

abstract void addGarnish();

public class PenneAlfredo extends PastaDish {

public void addPasta() {

System.out.println("Add penne");

}

public void addProtein() {

System.out.println("Add chicken");

}

public void addSauce() {

System.out.println("Add Alfredo sauce");

}

public void addGarnish() {

System.out.println("Add parsley");

}

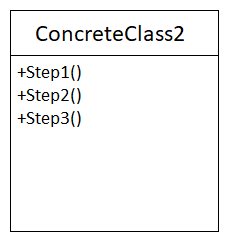
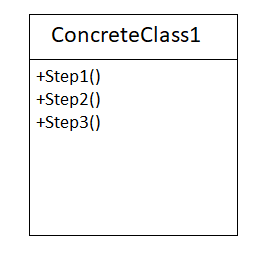
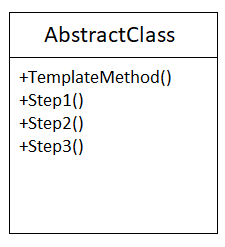
}

private void boilWater() {

System.out.println("Boiling water");

}

Structure



Code Location

The classes are in a package in the following path:

*“src/main/java/ org/jabref/logic/citationKeyPattern”*

The abstract superclass is call AbstractCitationKeyPattern and have one abstract method call getLastLevelCitationKeyPattern(EntryType key). This method is implemented in several subclasses named: DatabaseCitationKeyPattern and GlobalCitationKeyPattern.

In AbstractCitationKeyPattern superclass:

In DatabaseCitationKeyPattern subclass:

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Descrição gerada automaticamente

Uma imagem com texto

Descrição gerada automaticamenteIn GlobalCitationKeyPattern subclass:

Justification

As shown above, the template pattern is being used because the project has an abstract class called AbstractCitationKeyPattern that has an abstract method called getLastLevelCitationKeyPattern(EntryType key). The abstract method is implemented in the various subclasses: DatabaseCitationKeyPattern and GlobalCitationKeyPattern.