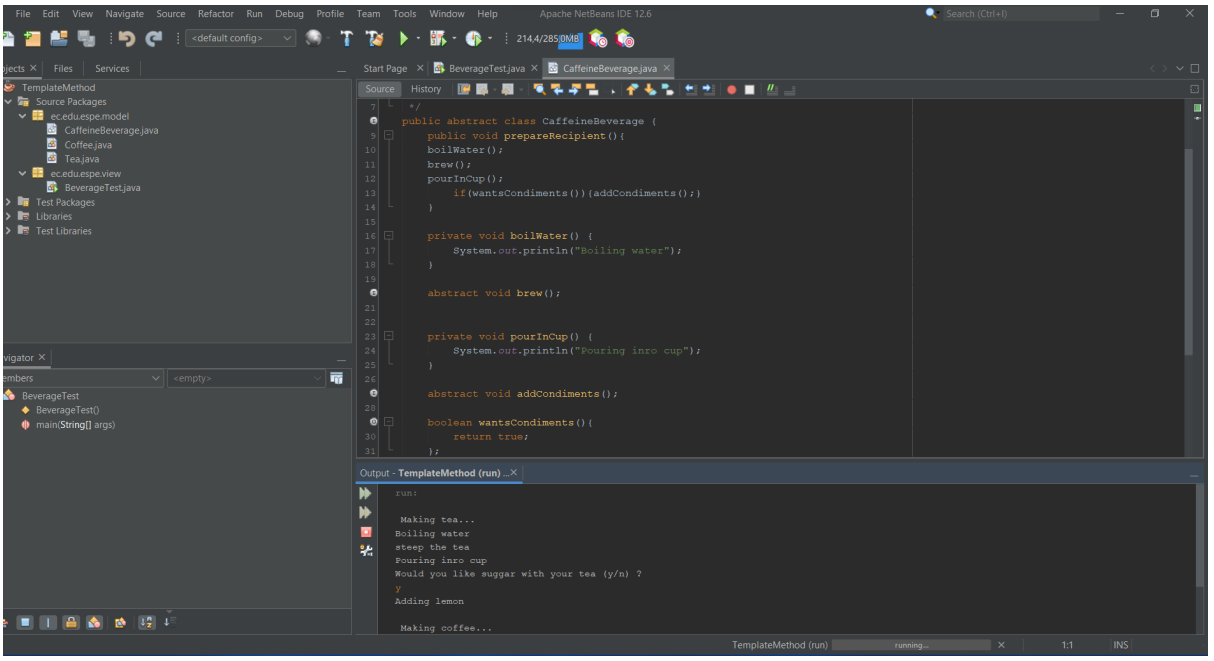
9oOOP WS35 TEMPLATE METHOD PATTERN

DATE: 16th february 2022

1 ALMACHE LITARDO ANDERSON MOISES

The template method pattern is a behavioral design pattern that defines the program skeleton of an algorithm in a method, called a template method, that differs by a few steps from subclasses. certain safe steps of an algorithm without changing the structure of the algorithm.

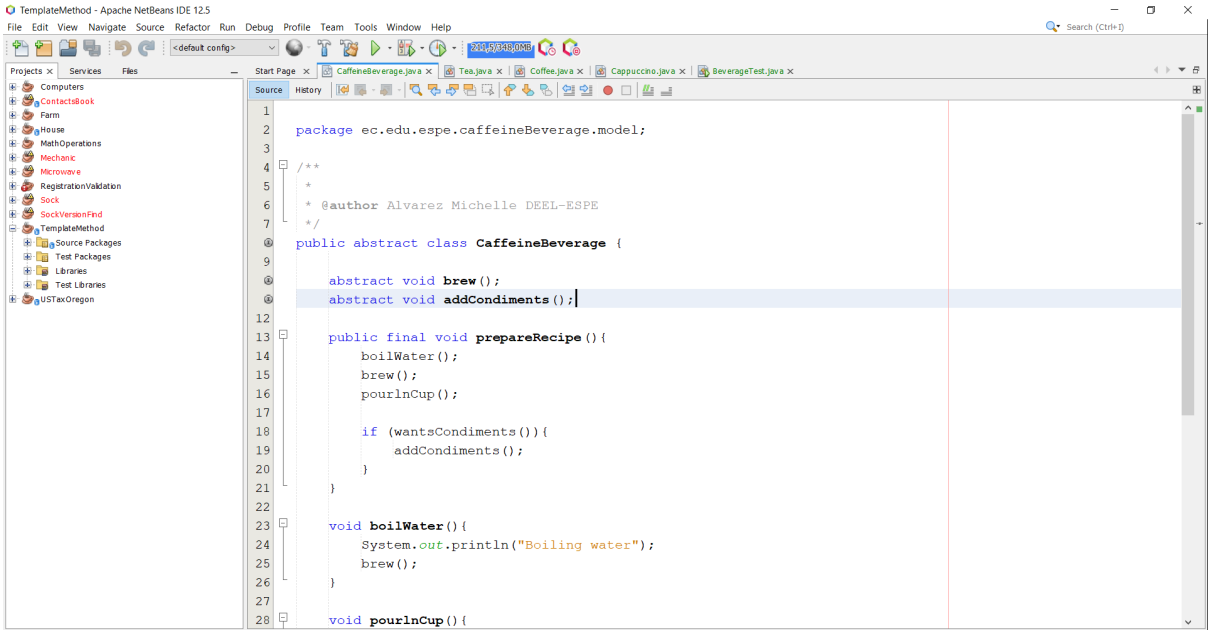


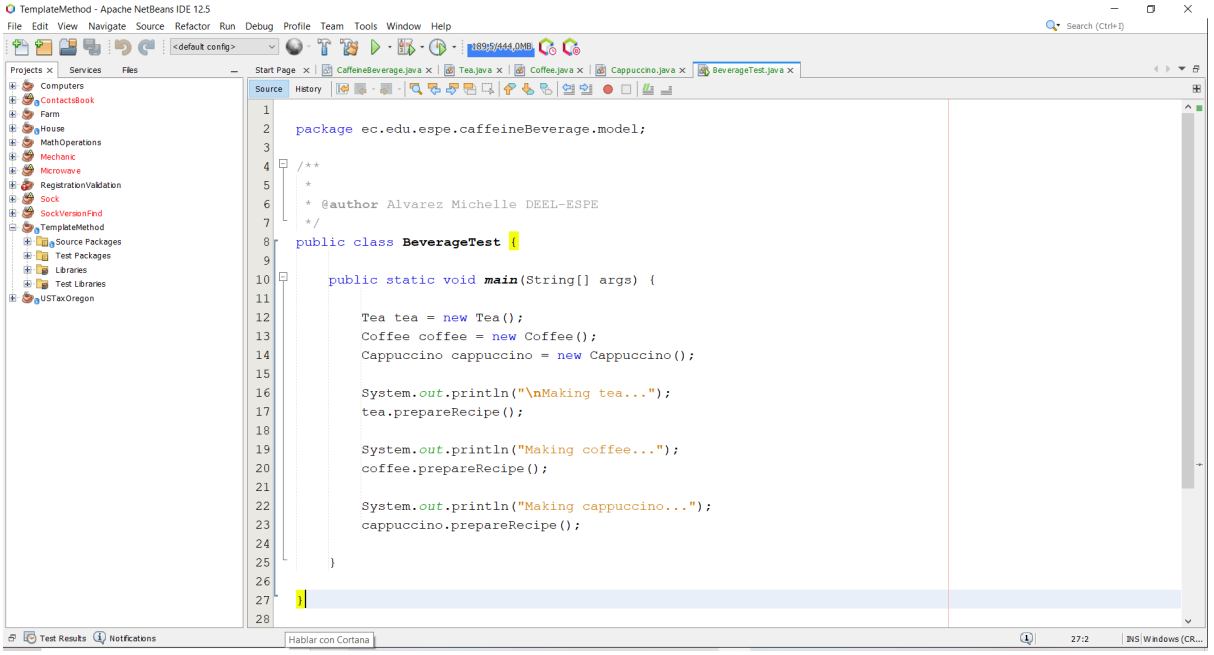
2 ALTAMIRANO BENALCAZAR CRISTHIAN ALEXANDER

Template method consist of a serie of algorithms that are almost alike in different parts of the software. Therefore, are parts in common in the code in each particularly class, but the implementation at all is different.

3 ALVAREZ RAMIREZ MICHELLE ESTEFANIA

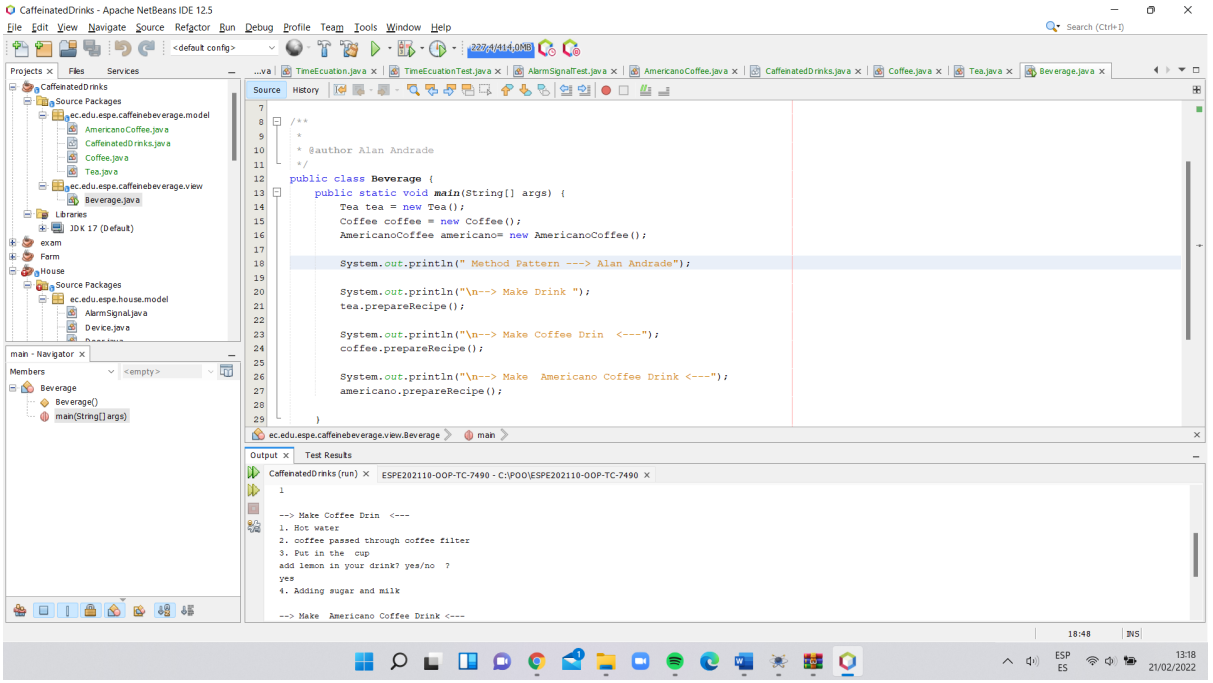
The template method is a method in a superclass, usually an abstract superclass, it defines an structure of an algorithm in the superclass. The subclasses, called Concrete Classes, extend the above class and can override the method implementation without changing the structure of the superclass. Multiple subclasses can be built from an abstract superclass.





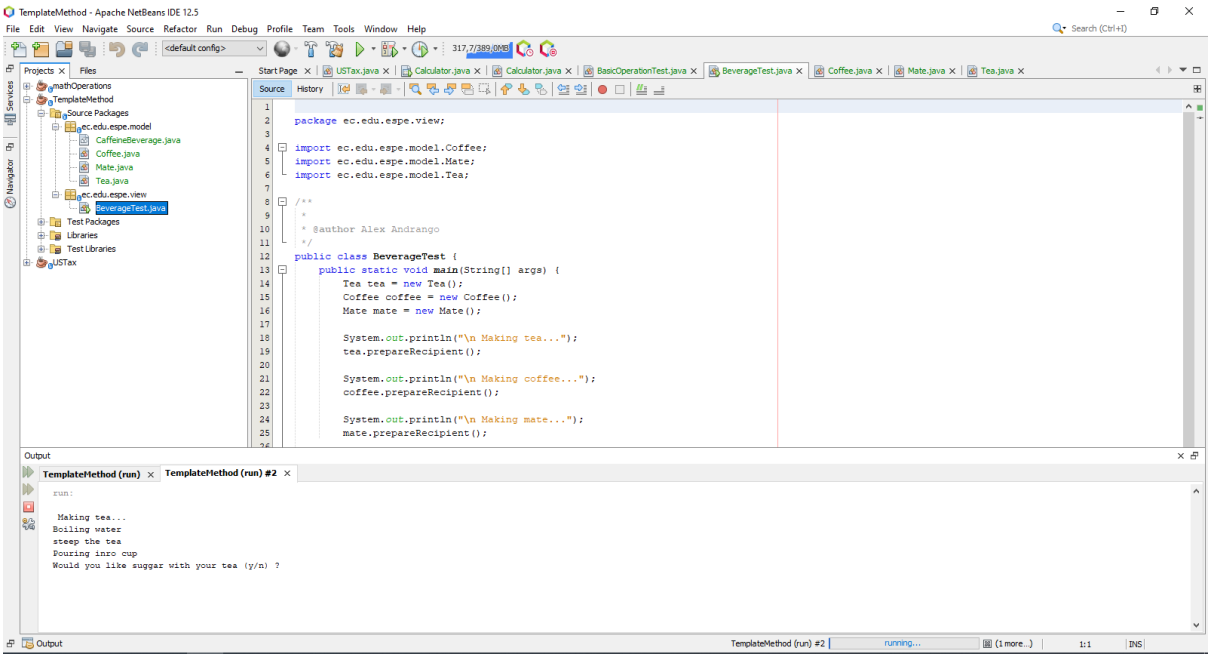
4 ANDRADE CARATE ALAN DAMIAN

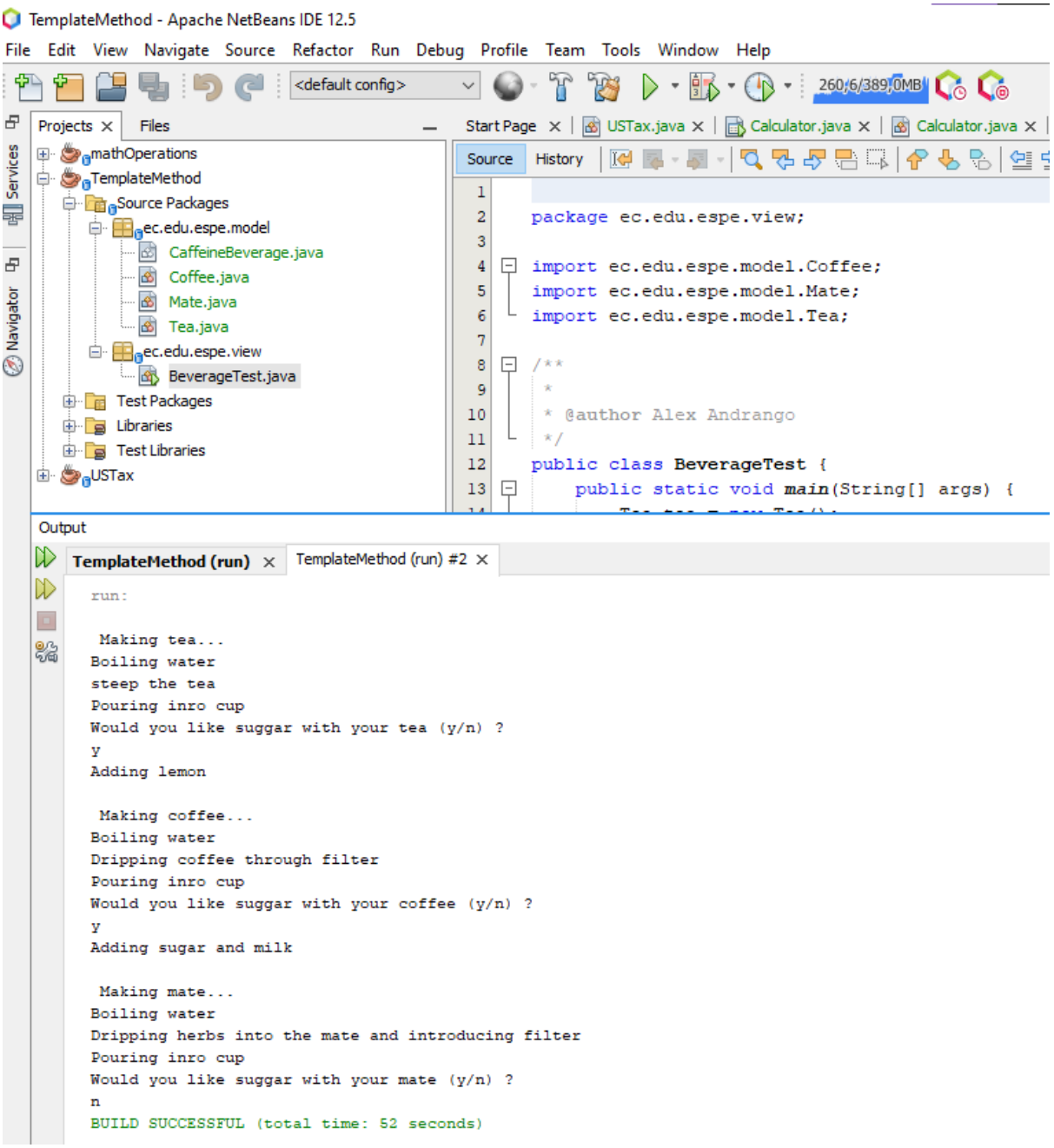
The template method design pattern is to define an algorithm as a skeleton of operations and let child classes implement the details.The general structure and sequence of the algorithm are generally preserved by the main class.



5 ANDRANGO ESPINOSA ALEX PAUL

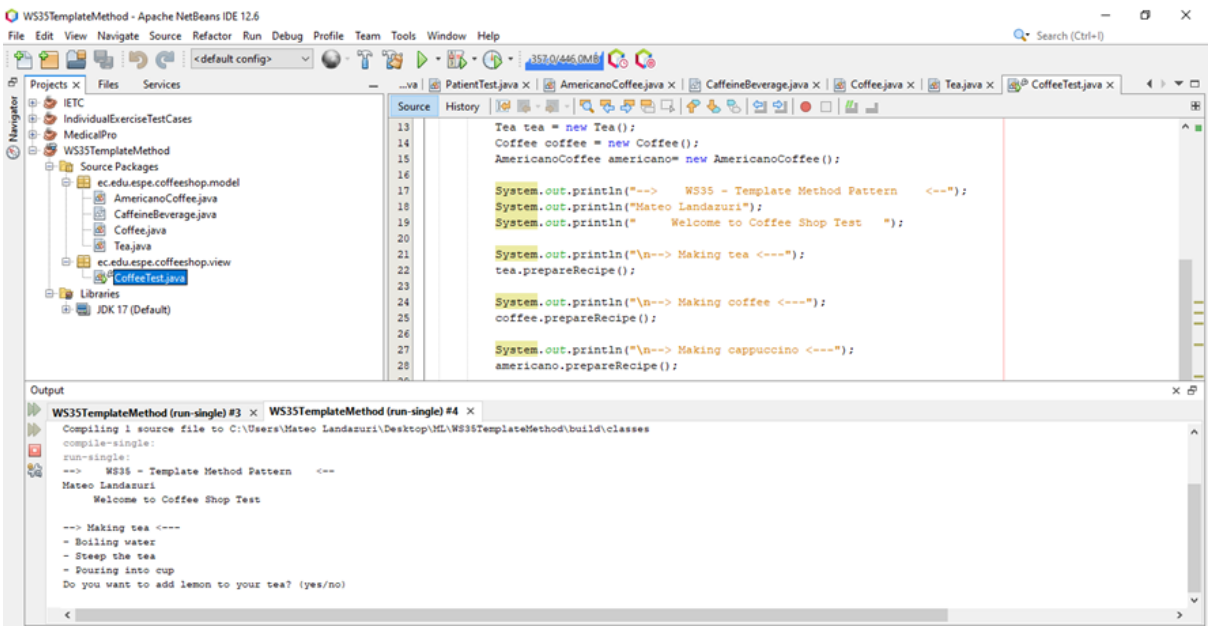
The template method pattern is a behavioral design pattern that defines the program skeleton of an algorithm in a method.





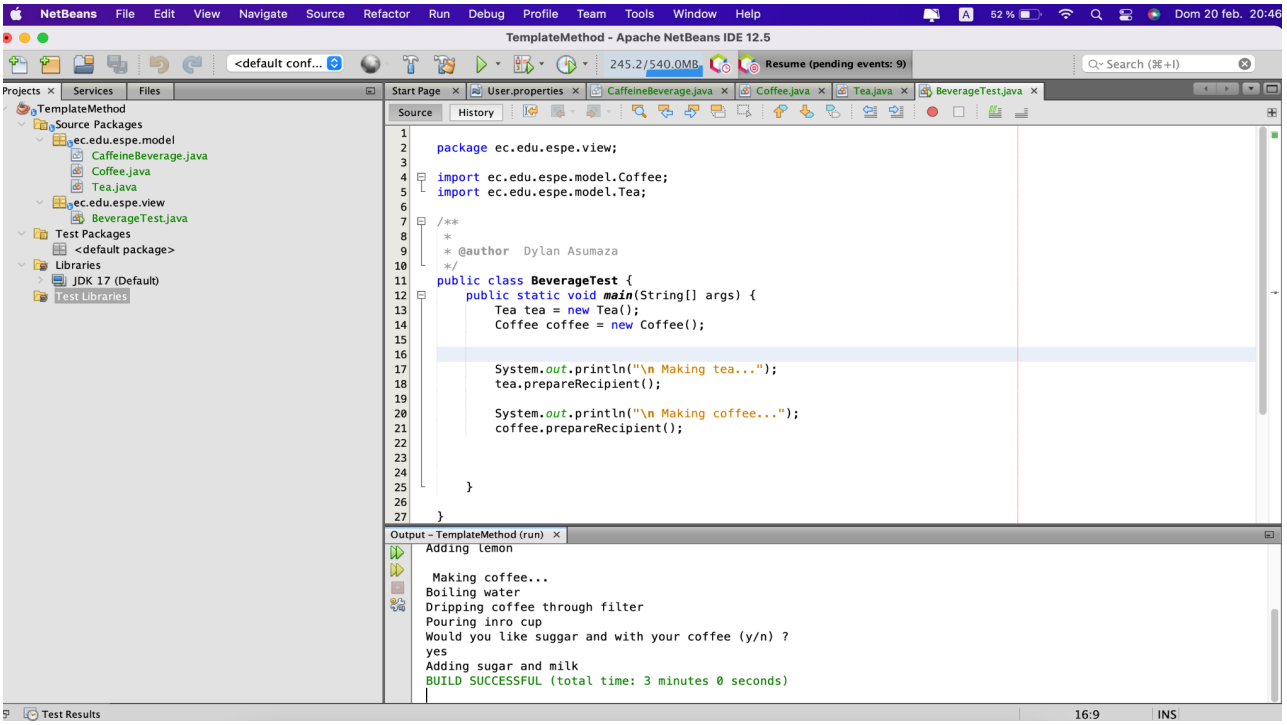
6 ARROBA SOLORZANO CRISTIAN ALEXANDER

The Template Method define the skeleton of an algorithm in an operation, deferring some steps to subclasses. Template Method lets subclasses redefine certain steps of an algorithm without changing the algorithm's structure.



7 ASUMAZA GUALOTO DYLAN ALEXANDER

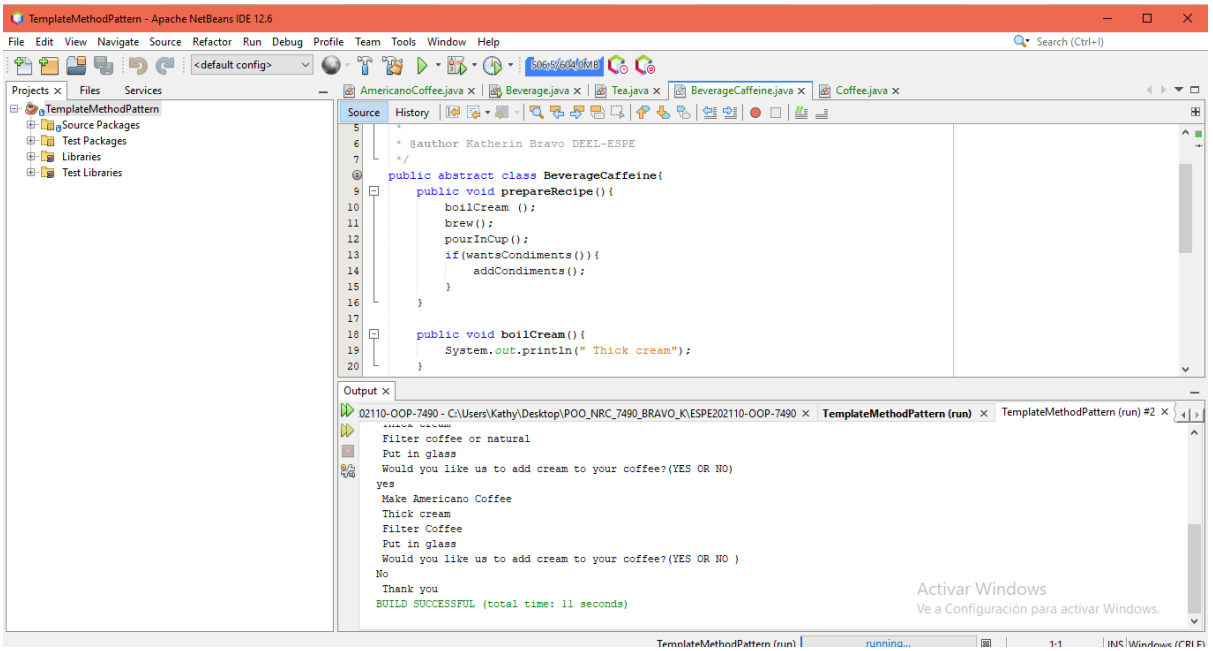
Template Method is a behavioral design pattern that defines the skeleton of an algorithm in the superclass but allows subclasses to override steps of the algorithm without changing its structure.



8 BRAVO RODRIGUEZ KATHERIN DAYANNE

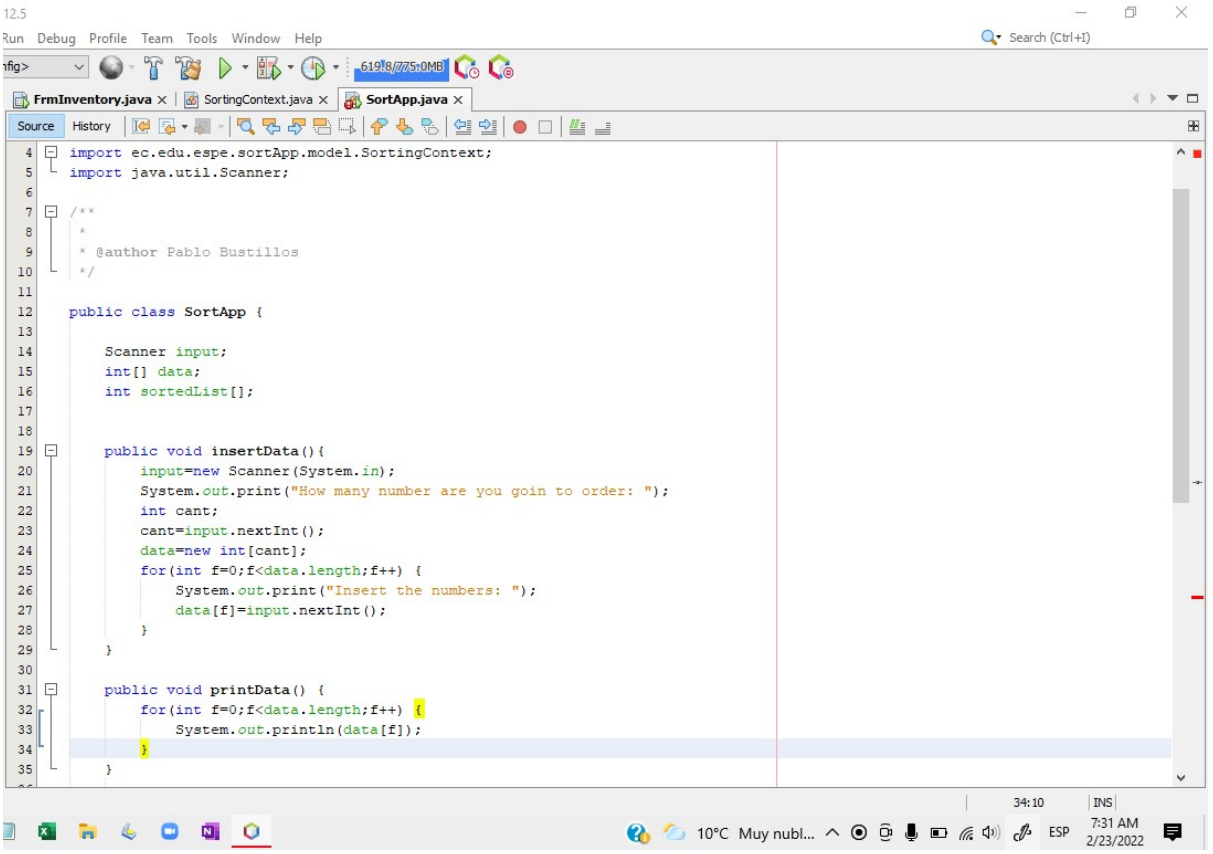
Template method design pattern is to define an algorithm as a skeleton of operations and leave the details to be implemented by the child classes. The overall structure and sequence of the algorithm are preserved by the parent class. These steps can be an abstract method that will be implemented by its subclasses. The helper methods may be either abstract methods, in which case subclasses are required to provide concrete implementations, or hook methods,

which have empty bodies in the superclass. Subclasses can (but are not required to) customize the operation by overriding the hook methods.

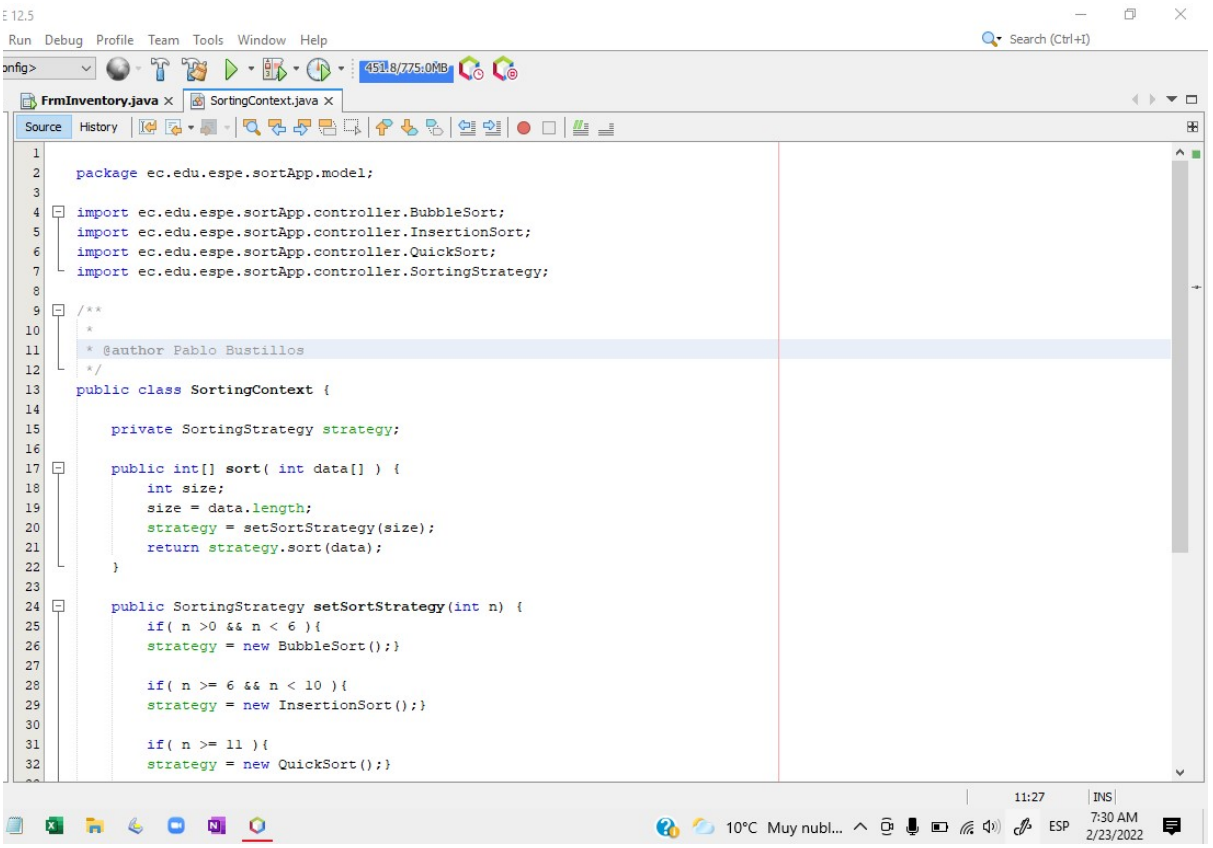


9 BRAVO VILLALOBOS CHRISTIAN DAVID
10 BUSTILLOS MONTENEGRO PABLO SEBASTIAN

Template Method is a behavioral design pattern that allows you to specify an algorithm's skeleton in a base class and then let subclasses alter the steps without changing the general structure of the algorithm.



```java
import ec.edu.espe.sortApp.model.SortingContext;
import java.util.Scanner;

/**
 *
 * @author Pablo Bustillos
 */

public class SortApp {

    Scanner input;
    int[] data;
    int sortedList[];


    public void insertData(){
        input=new Scanner(System.in);
        System.out.print("How many number are you goin to order: ");
        int cant;
        cant=input.nextInt();
        data=new int[cant];
        for(int f=0;f<data.length;f++) {
            System.out.print("Insert the numbers: ");
            data[f]=input.nextInt();
        }
    }

    public void printData() {
        for(int f=0;f<data.length;f++) {
            System.out.println(data[f]);
        }
    }
```

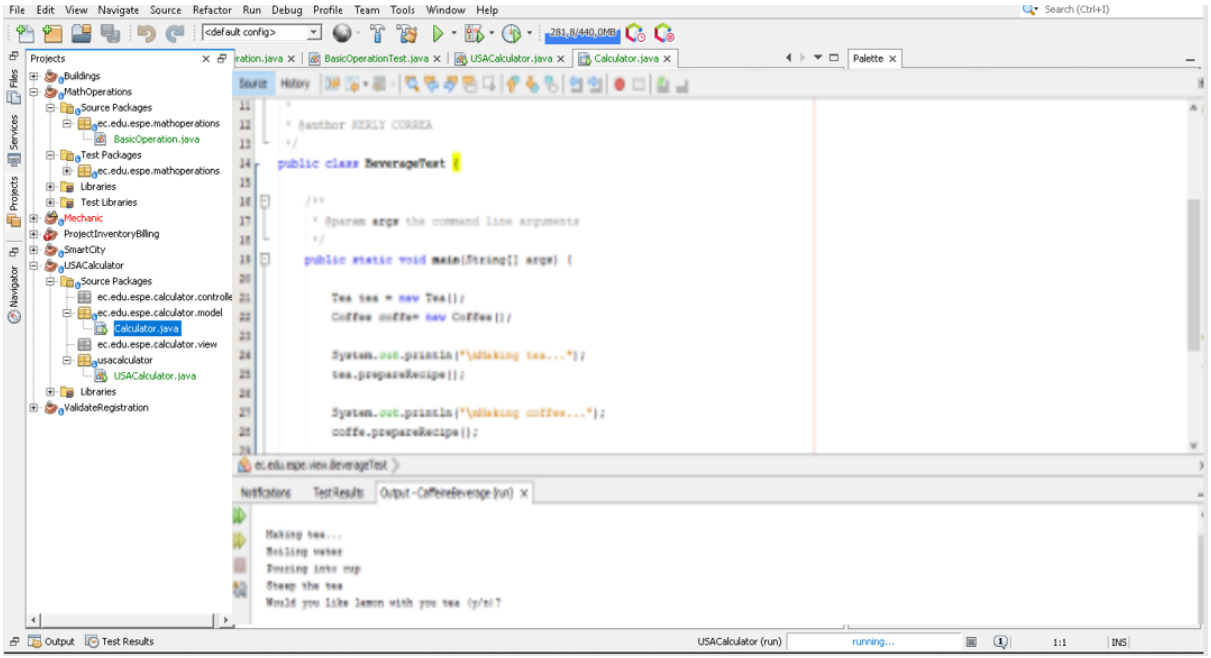


```java

package ec.edu.espe.sortApp.model;

import ec.edu.espe.sortApp.controller.BubbleSort;
import ec.edu.espe.sortApp.controller.InsertionSort;
import ec.edu.espe.sortApp.controller.QuickSort;
import ec.edu.espe.sortApp.controller.SortingStrategy;

/**
 *
 * @author Pablo Bustillos
 */
public class SortingContext {

    private SortingStrategy strategy;

    public int[] sort( int data[] ) {
        int size;
        size = data.length;
        strategy = setSortStrategy(size);
        return strategy.sort(data);
    }

    public SortingStrategy setSortStrategy(int n) {
        if( n >0 && n < 6 ){
        strategy = new BubbleSort();}

        if( n >= 6 && n < 10 ){
        strategy = new InsertionSort();}

        if( n >= 11 ){
        strategy = new QuickSort();}
```

11 CADENA ROMAN BENJAMIN ABEL

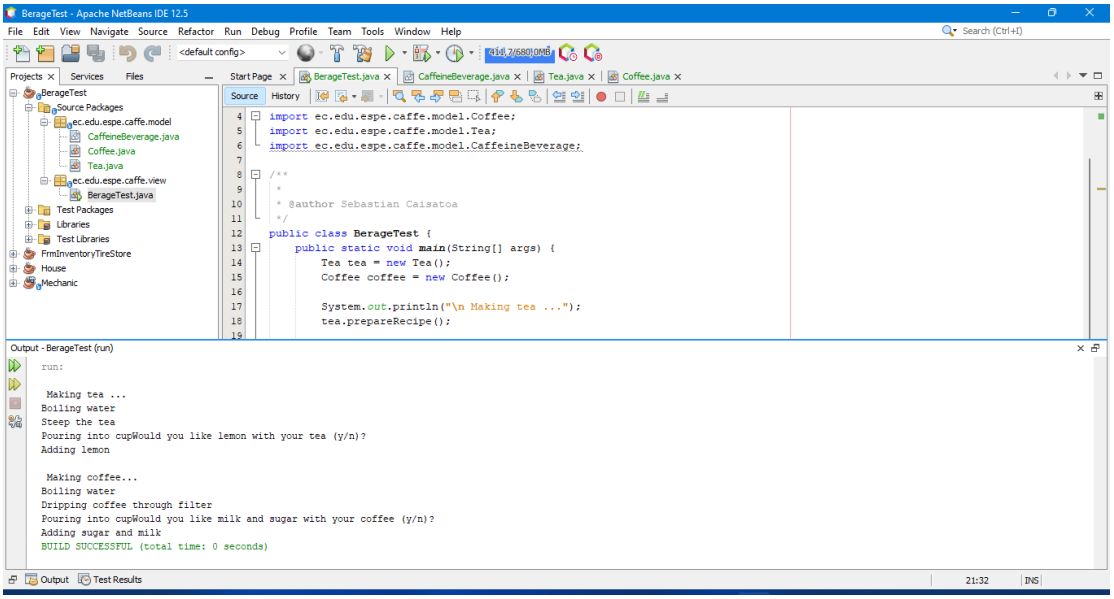
Template Method is a behavioral design pattern that defines the skeleton of an algorithm in the superclass, but allows subclasses to override steps of the algorithm without changing its structure.

Using the Template-Method pattern, a clearer code can be achieved, since it allows us to avoid having to repeat code in the different implementations of the algorithm.



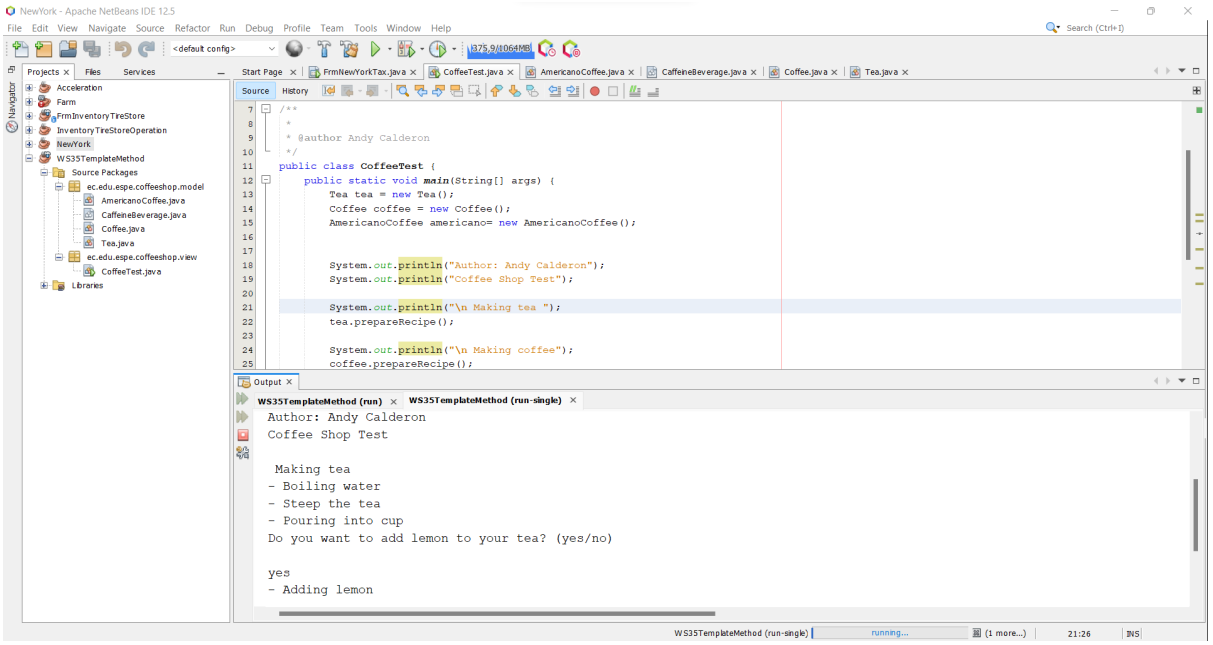
12 CAISATOA RAMIREZ SEBASTIAN BERNARDO

The template method is to define an algorithm that defines the skeleton of allows subclasses to override algorithm steps without changing its structure. The general structure and sequence of the algorithm are preserved by the main class.



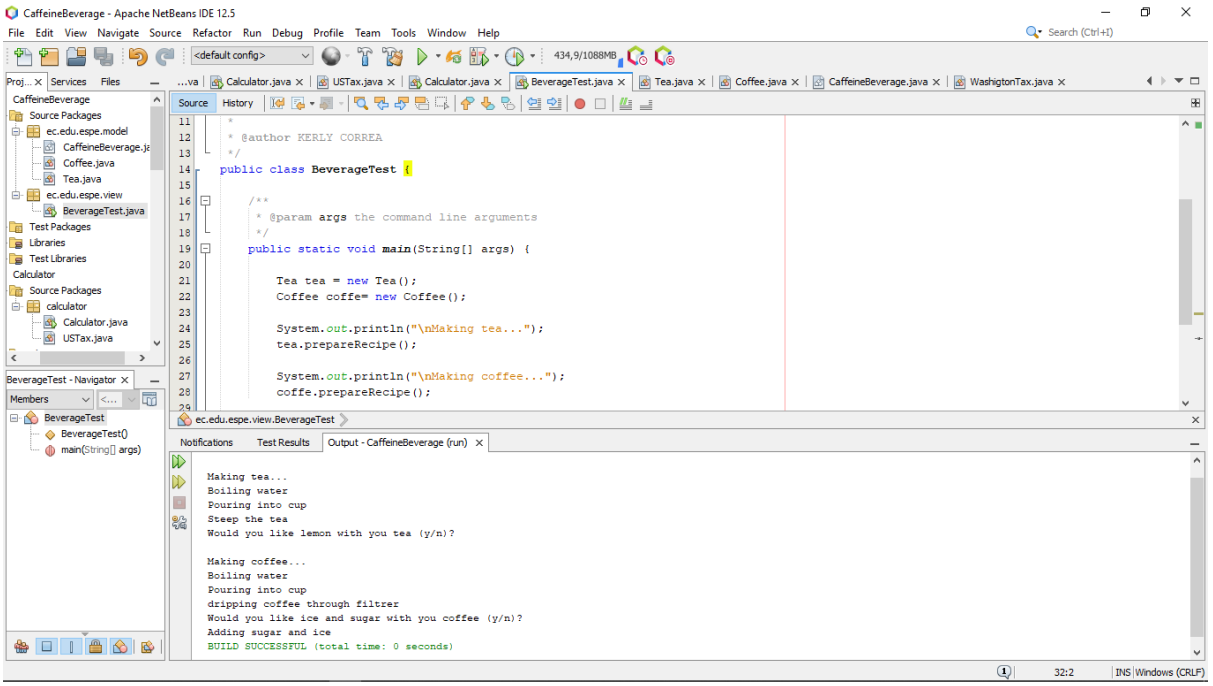
13 CALDERON MERCHAN ANDY JOSUE

Template Method is a behavioral design pattern that defines the skeleton of an algorithm in the superclass but allows subclasses to override steps of the algorithm without changing its structure.



14 CORREA RUIZ KERLY YADIRA

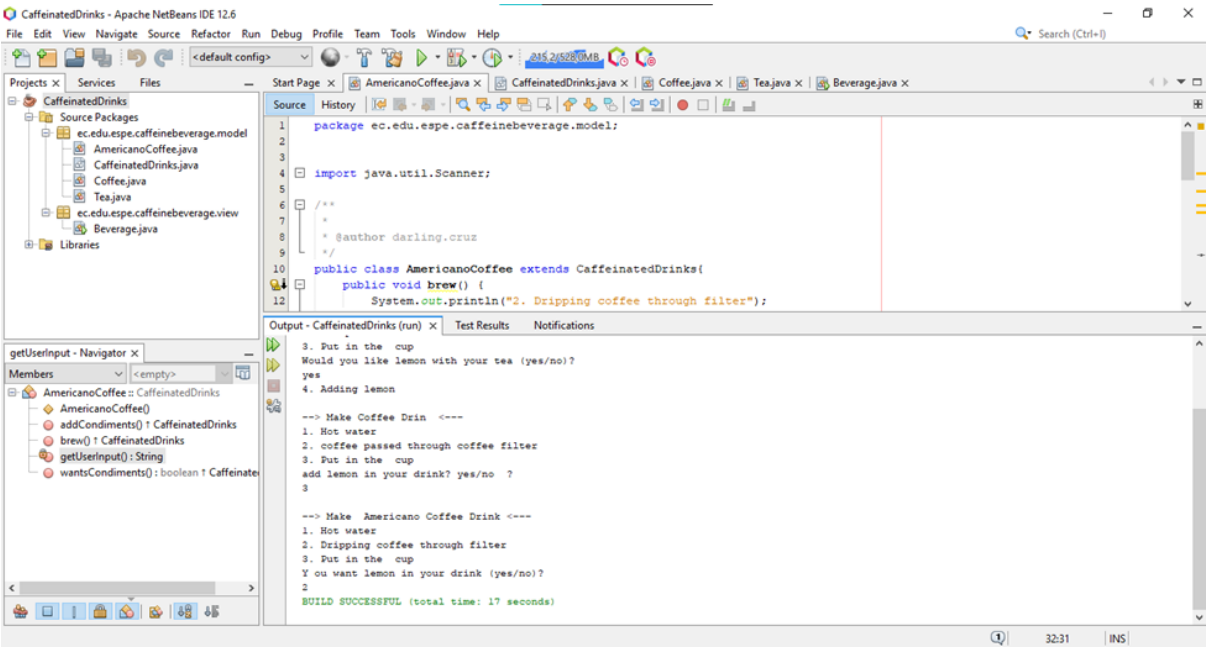
Template method design pattern is to define an algorithm as a skeleton of operations and leave the details to be implemented by the child classes. The overall structure and sequence of the algorithm are preserved by the parent class. This design pattern is used popularly in framework development. This helps to avoid code duplication also.



15 CRUZ PANTOJA DARLING MICAELA

Is a design pattern that helps define the skeleton of operations and let child classes implement the details. This allows subclasses to override algorithm steps without changing

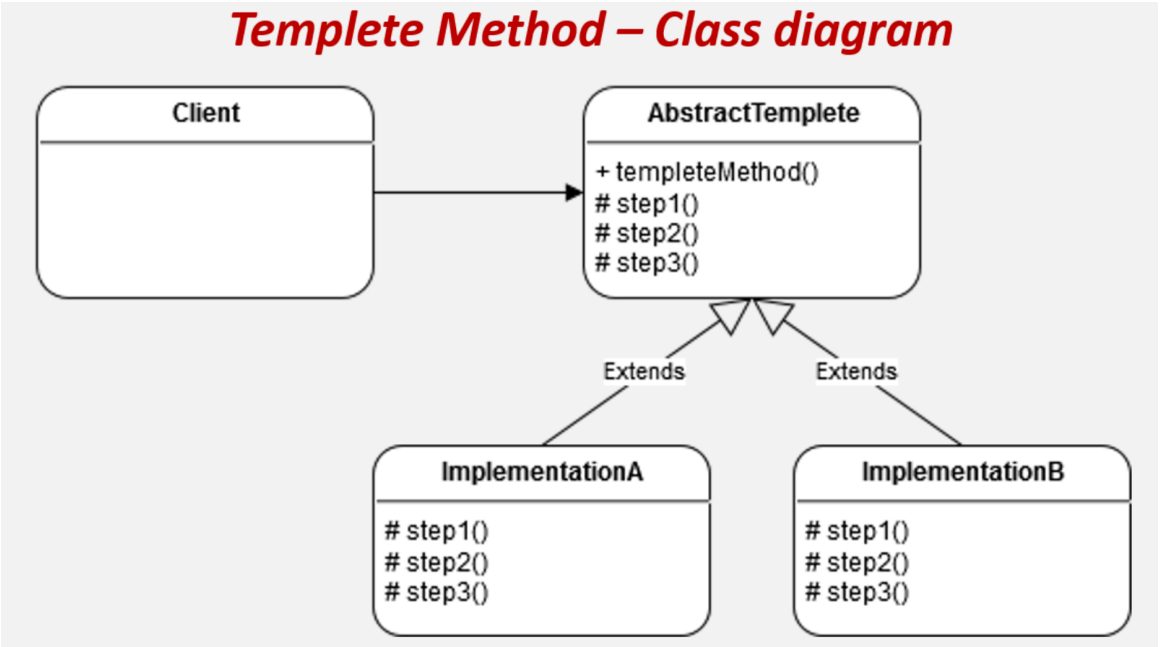
the structure. This structure and the sequence of the algorithm are stored in the parent class. and we should never change the order of execution.



16 DE LA CRUZ QUINGA ALEJANDRO SEBASTIAN

The template method is a method in a superclass, usually an abstract superclass, and defines the skeleton of an operation in terms of a series of high-level steps.

Create the abstract base class and declare the template method and a set of abstract methods that represent the steps of the algorithm.



17 EIVAR DAGUA JAIME MAURICIO

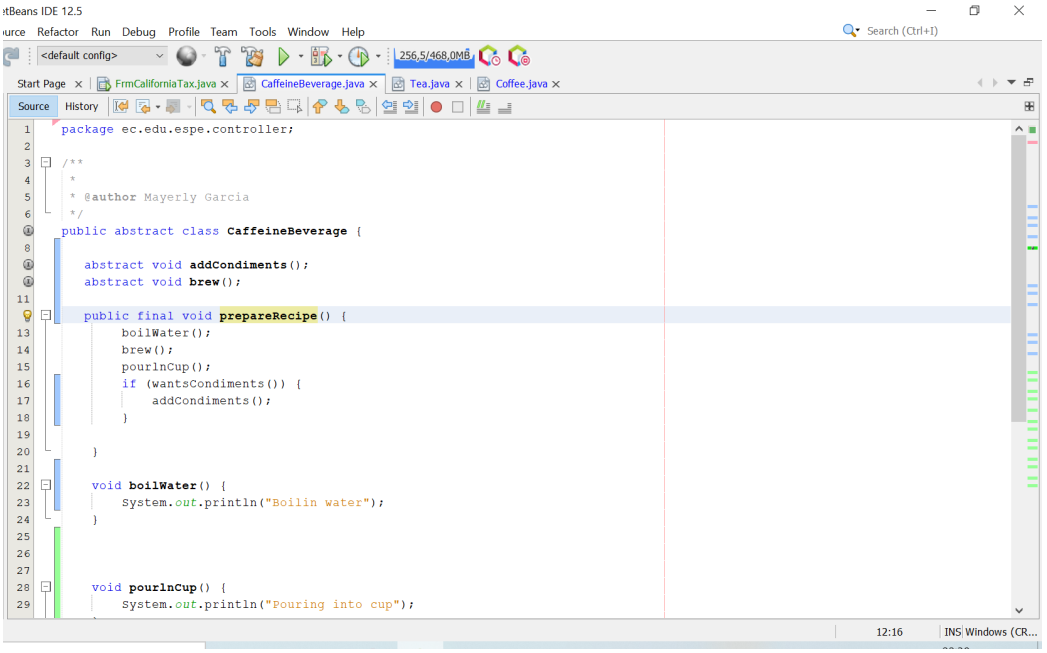
Template Method is a method of a superclass, usually the abstract superclass, and defines the skeleton of an algorithm operation in the superclass but allows subclasses to override

steps of the algorithm without changing its structure. These steps are implemented by additional helper methods in the same class as the template method.

18 GARCIA BARRETO MAYERLY PRISSILLA

Template Method

- Template Method is a behavioral design pattern that allows you to define the skeleton of an algorithm in a base class and allows subclasses to overwrite the steps without changing the overall structure of the algorithm.



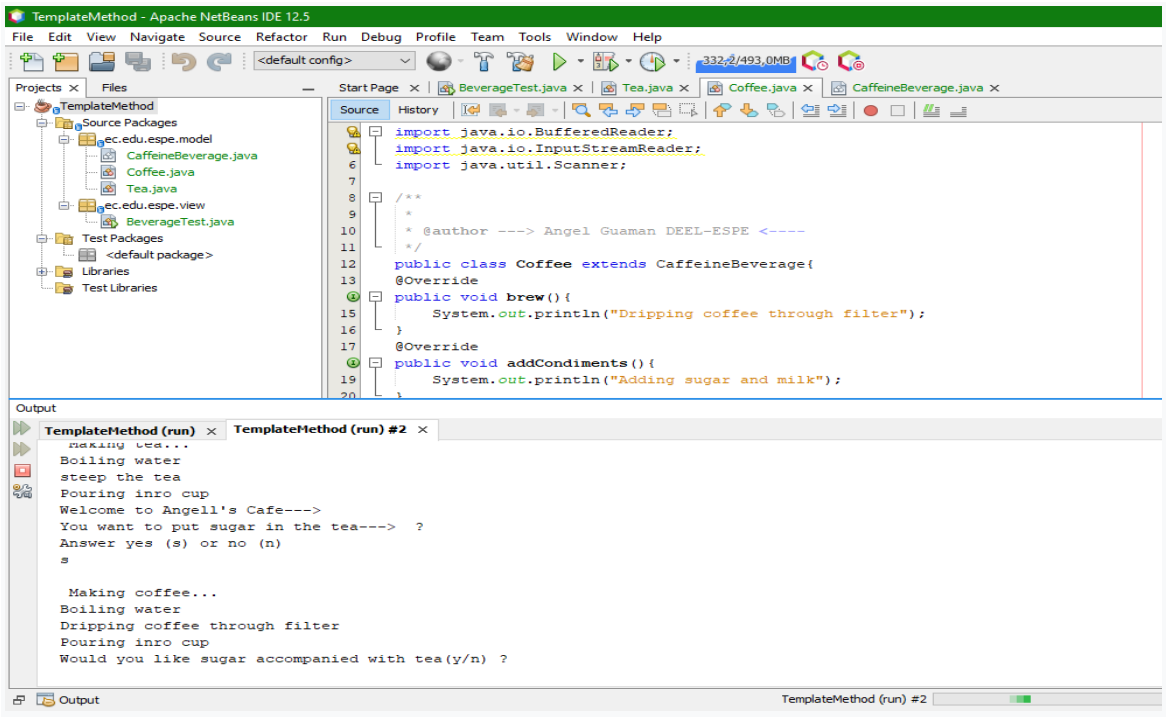
19 GOMEZ DIAZ MELISSA MALAYCA

Template Method is a behavioral design pattern that allows you to defines a skeleton of an algorithm in a base class and let subclasses override the steps without changing the overall algorithm's structure.

20 GUAMAN VEJARANO ANGEL DAVID

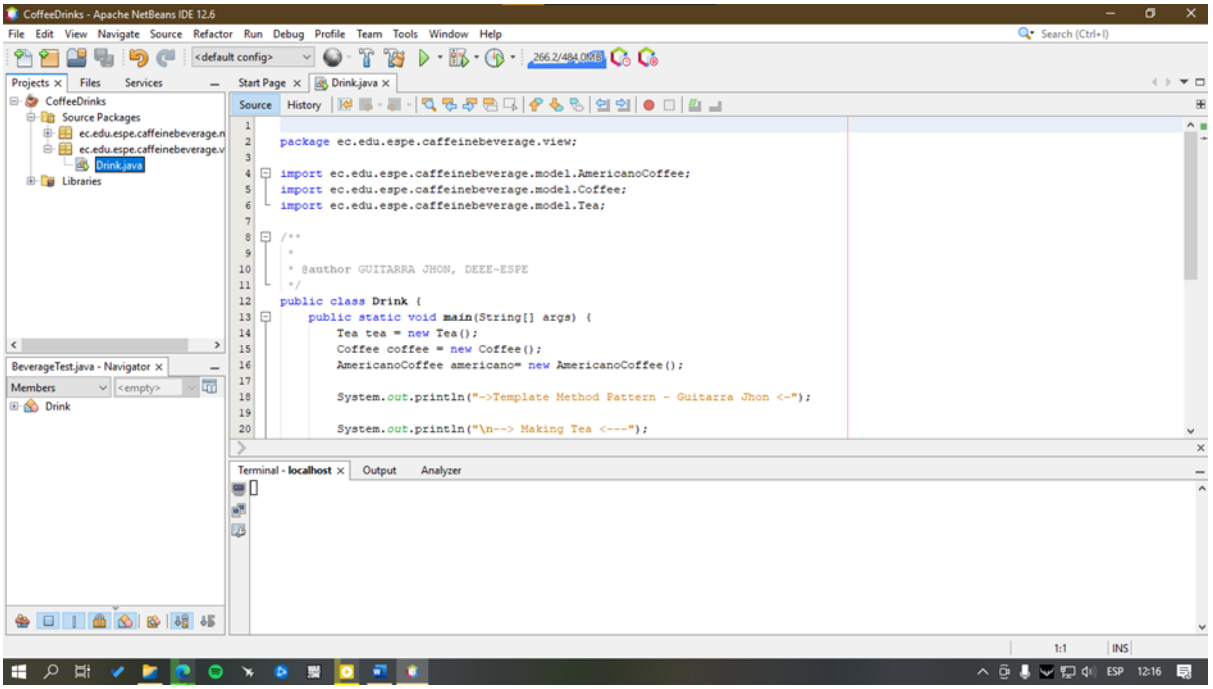
The template method

- The template method is for defining an algorithm that defines the skeleton of allowing subclasses to override algorithm steps without changing its structure. The general structure and sequence of the algorithm are preserved by the main class, the important point is that we can't change the order of execution because we can't build windows before building the foundations



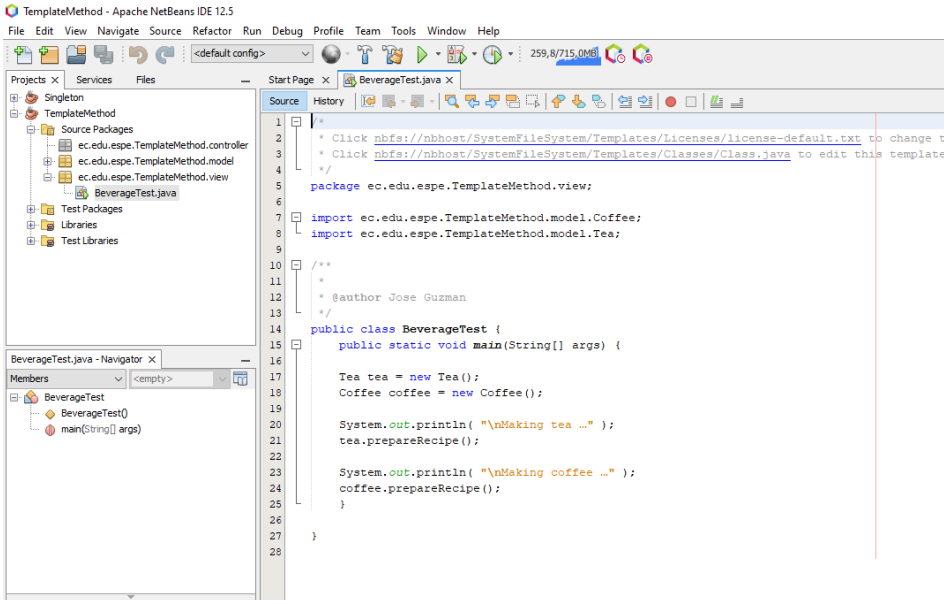
21 GUITARRA SANCHEZ JHON ALEXANDER

Template Method is a behavioral design pattern that defines the skeleton of an algorithm in the superclass but allows subclasses to override steps of the algorithm without changing its structure.



22 GUZMAN LOPEZ JOSE DAVID

Template method design pattern is to define an algorithm as a skeleton of operations and leave the details to be implemented by the child classes. The overall structure and sequence of the algorithm are preserved by the parent class.

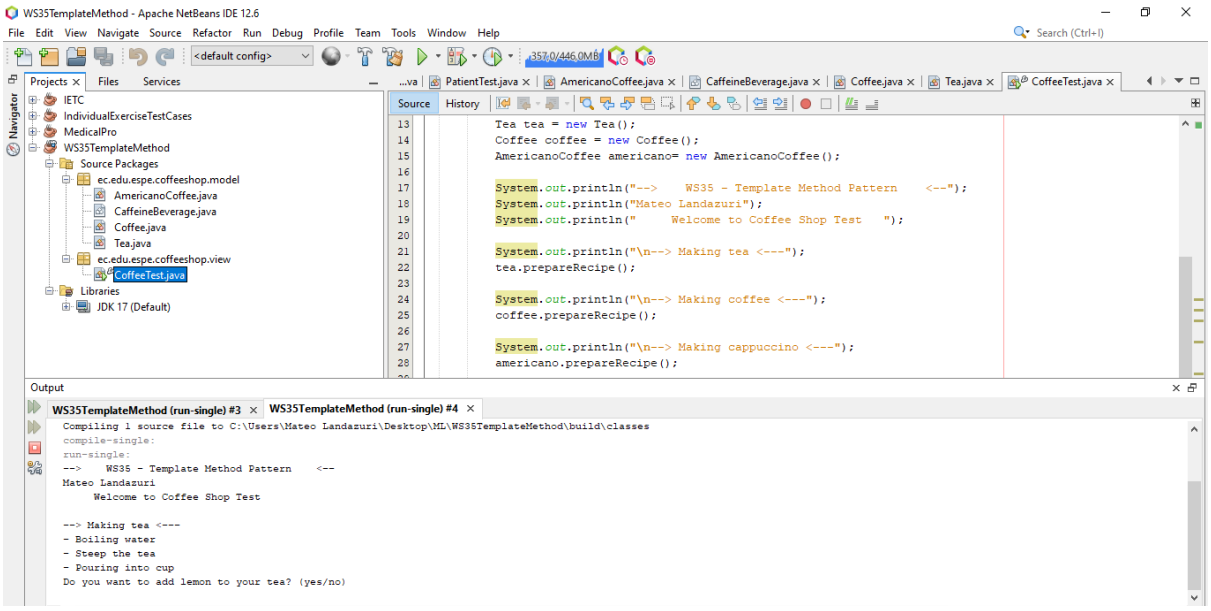


23 INSUASTI LOPEZ JONATHAN ESTEBA

Works as a pattern for customizable parts, the pattern is implemented in concrete classes which represent an algorithm that keeps the central idea closed to modification in the family in this way it encapsulates the essence of the algorithm family in one place and allows code-reuse.

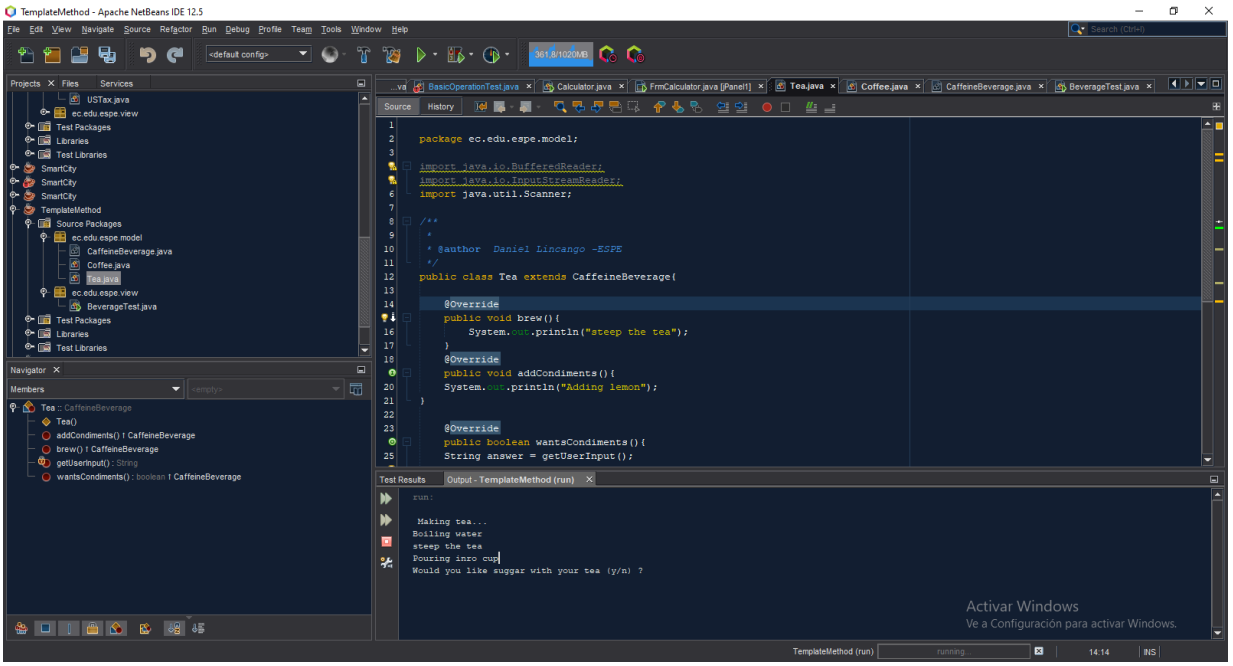
24 LANDAZURI SEGOVIA MATEO ISRAEL

The template method is a method in a superclass, usually an abstract superclass, and defines the skeleton of an operation in terms of a number of high-level steps.
Create the abstract base class and declare the template method and a set of abstract methods representing the algorithm's steps. Outline the algorithm's structure in the template method by executing corresponding steps



25 LINCANGO CRIOLLO JOSE DANIEL

Template method design pattern is to define an algorithm as a skeleton of operations and leave the details to be implemented by the child classes. The overall structure and sequence of the algorithm are preserved by the parent class.

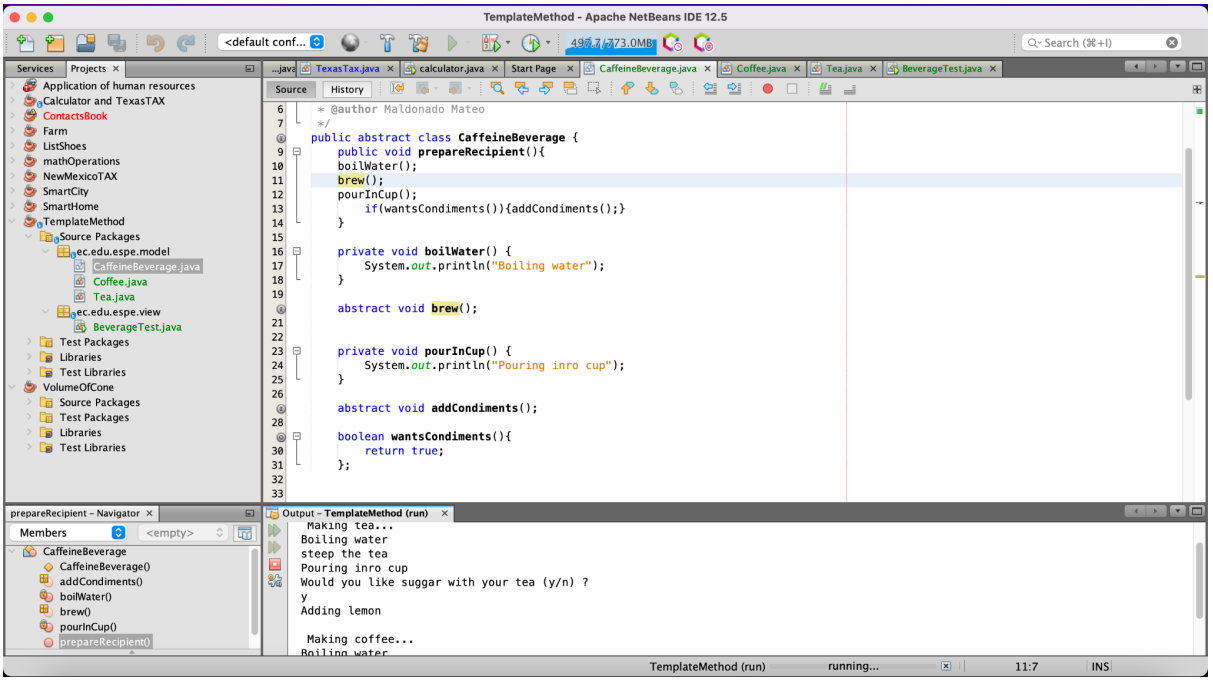


26 MAISINCHO PAUCAR RICHAR ALEXANDER

The templetes method pattern uses a common form of air draft that defines the outline of an operation in the superclass emsbut allows subclasses to overwrite steps of the operation without evolving its structure.

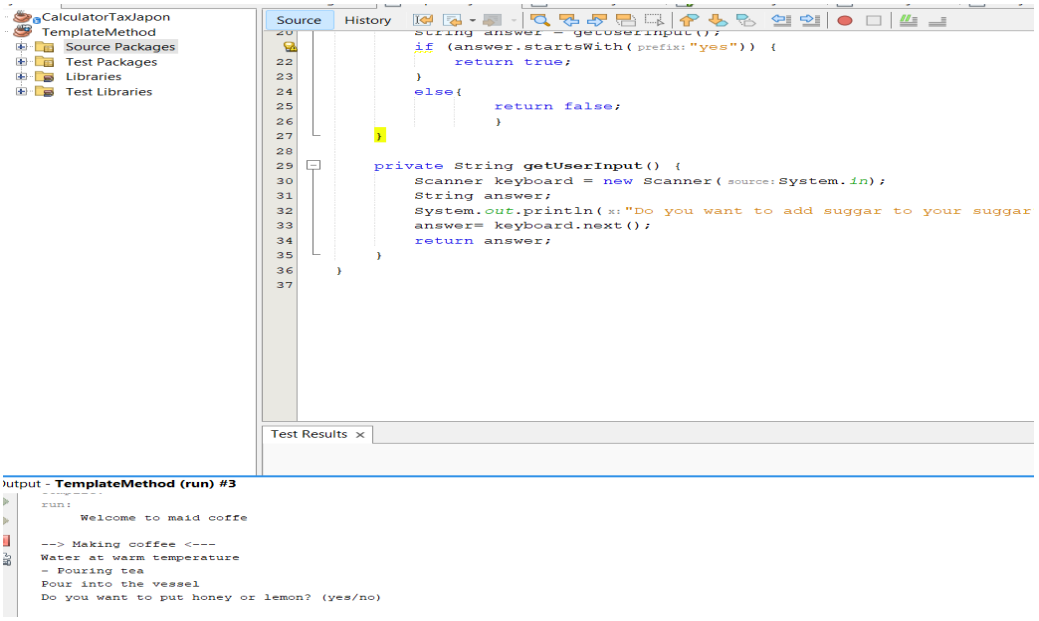
27 MALDONADO BASTIDAS MATEO STEFANO

Define the skeleton of an algorithm in an operation, deferring some steps to client subclasses. Template Method lets subclasses redefine certain steps of an algorithm without changing the algorithm's structure.



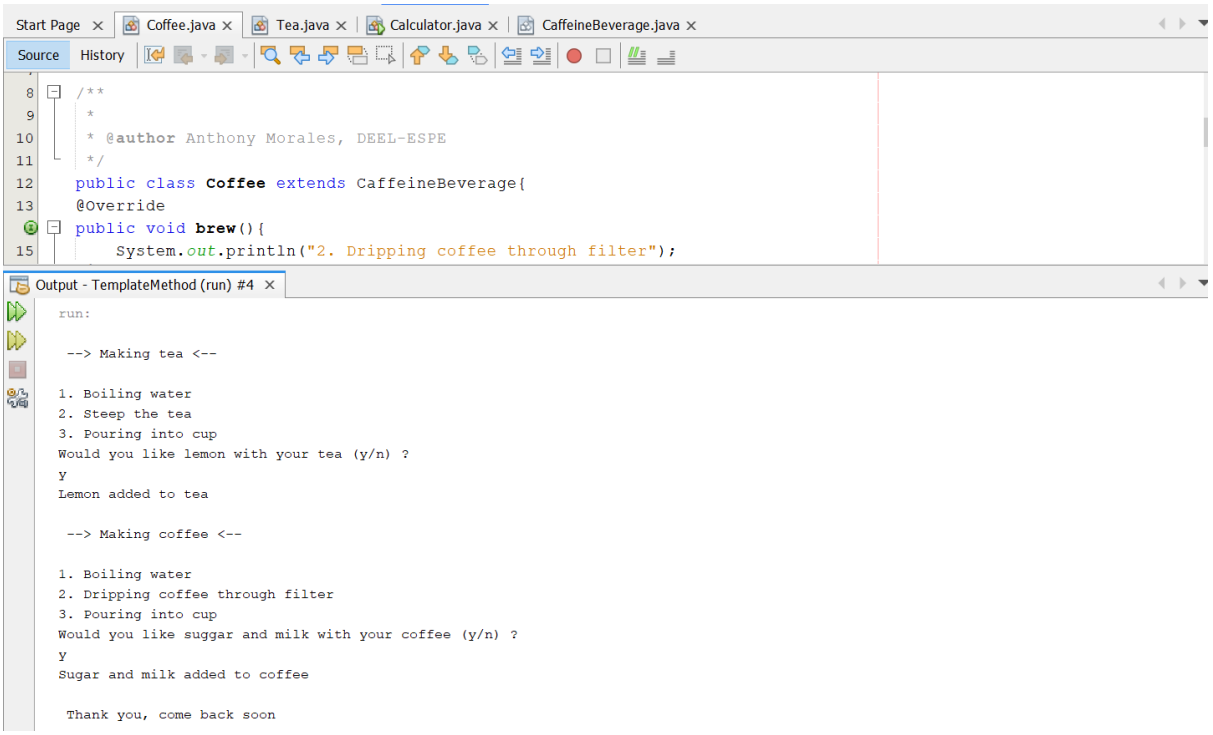
28 MANTUANO FERNANDEZ LEONEL FERNANDO

This is a behavioral design pattern that defines the structure of an algorithm within a class, but allows subclasses to override the steps of the algorithm without moving or varying its structure, promoting code reuse and decoupling, but at the expense of inheritance.



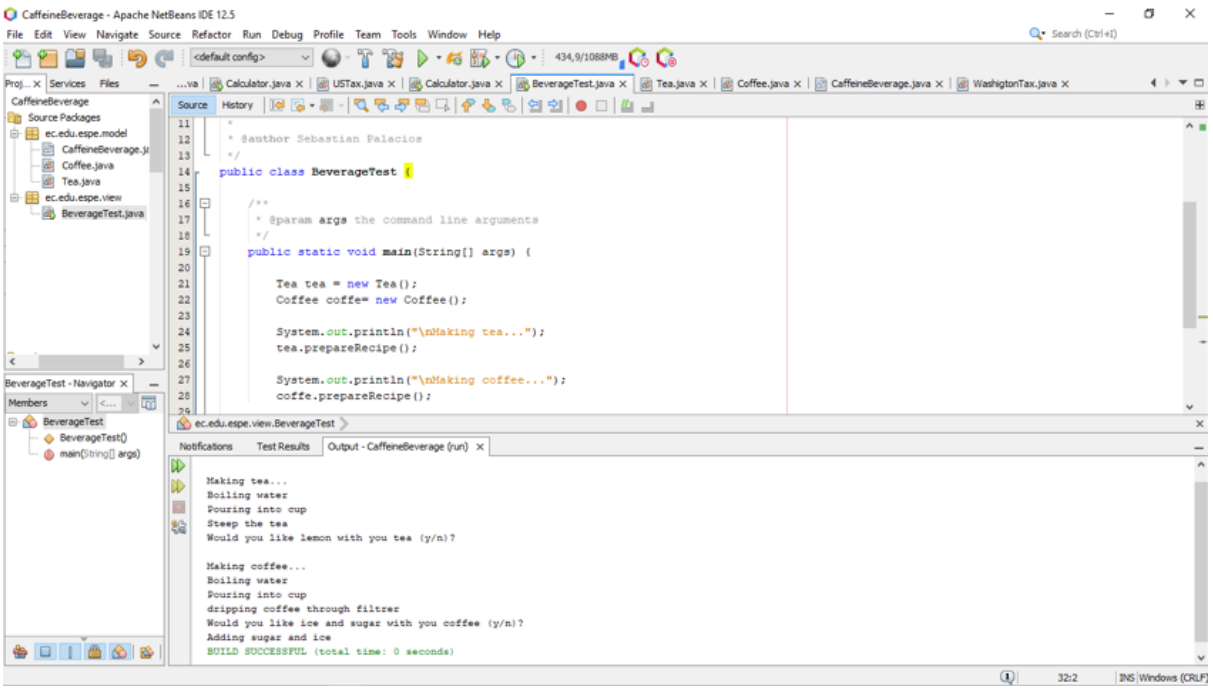
29 MORALES CAICEDO ANTHONY JAVIER

The template method allows the steps of an algorithm to be executed by classes. The structure of the algorithm will not change, but certain parts can be made to run in the classes created.



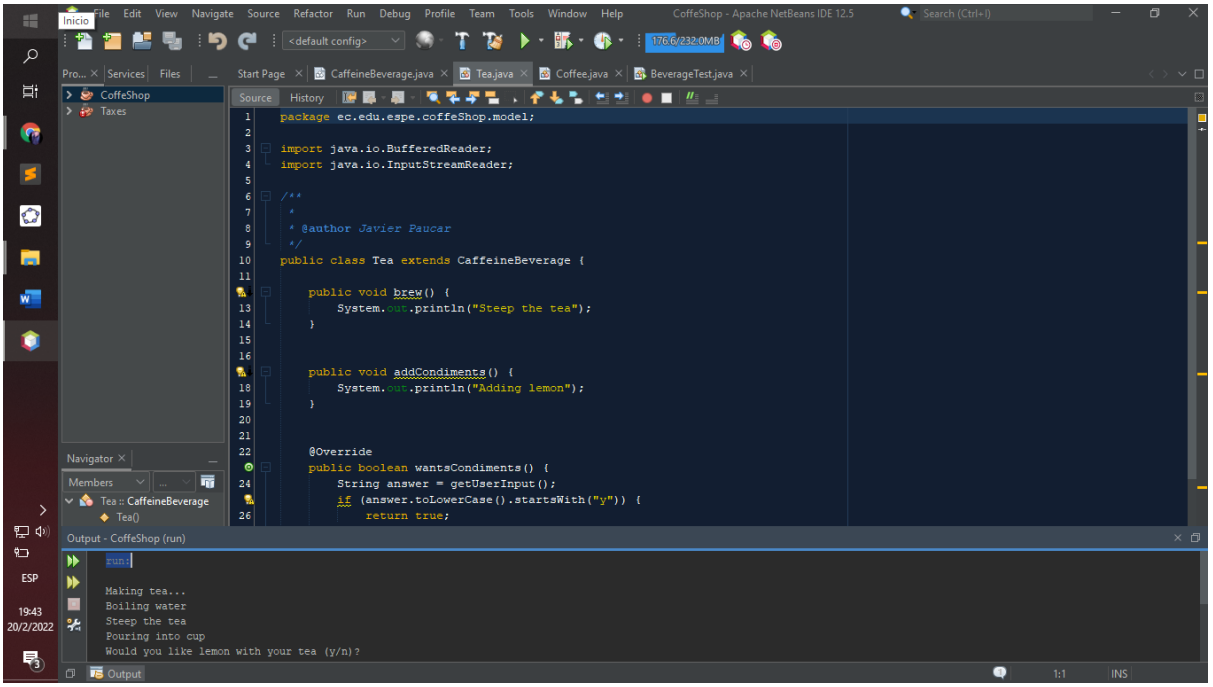
30 PALACIOS CANDO DIEGO SEBASTIAN

Template method pattern gives us a structure of how an algorithm has to be executed, it indicates the steps that algorithm has to be executed. Some variations in the algorithm could change but the structure or the order of how it is executed does not change. This is given in the base class and the variations are given in the child classes.



31 PAUCAR LEMA ALEX JAVIER

Is a behavioral design pattern that allows you to define the skeleton of an algorithm in a base class and allows subclasses to override the steps without changing the overall structure of the algorithm.

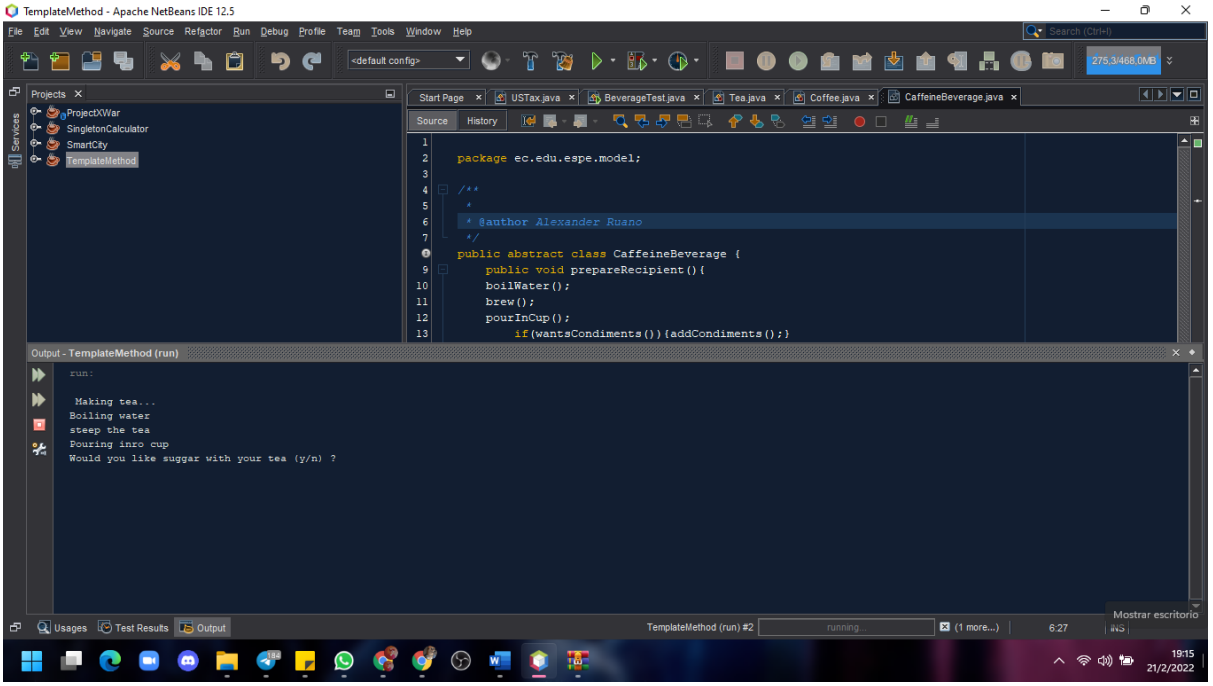


32 QUINGA GUAYASAMIN LEANDRO ALEXANDER

Template Method is defined as a behavioral design pattern that defines the skeleton of an algorithm in the superclass, allowing subclasses to overwrite steps of the algorithm without changing its structure.

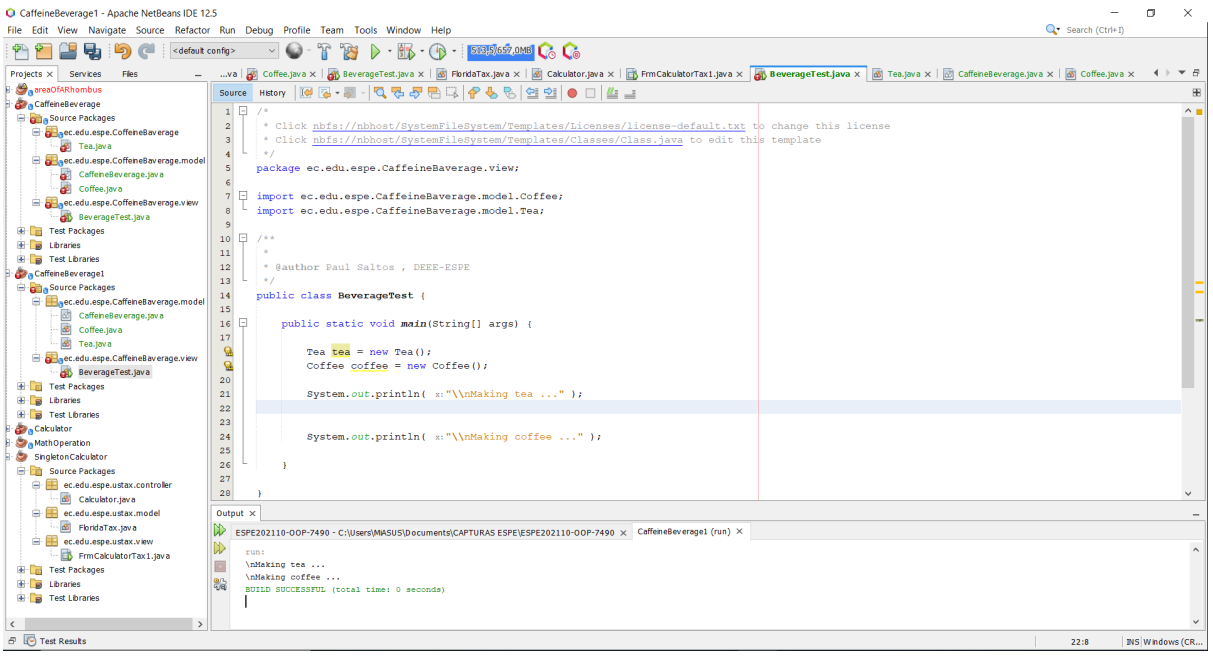
33 RUANO PONCE ALEXANDER JAVIER

Template Method: Template Method is a behavioral design pattern that allows you to define the skeleton of an algorithm in a base class and allows subclasses to override the steps without changing the overall structure of the algorithm.



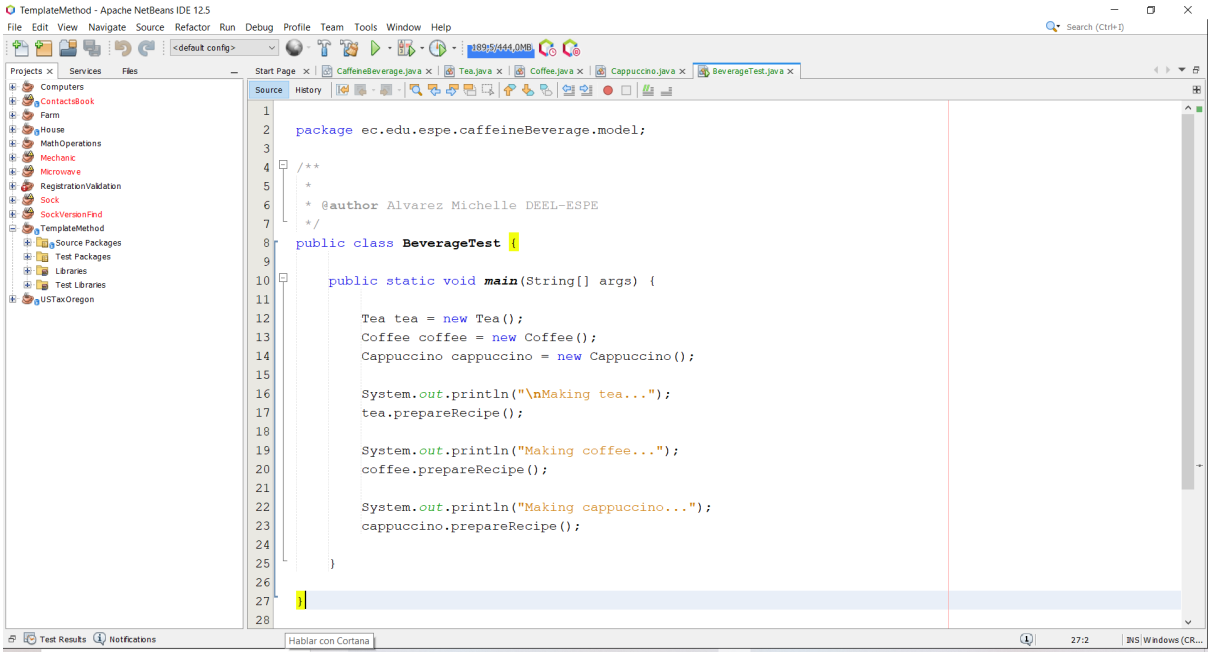
34 SALTOS TACO PAUL ALEXANDER

Template Method is a method of a superclass, usually the abstract superclass, and defines the skeleton of an algorithm operation in the superclass but allows subclasses to override steps of the algorithm without changing its structure. These steps are implemented by additional helper methods in the same class as the template method.



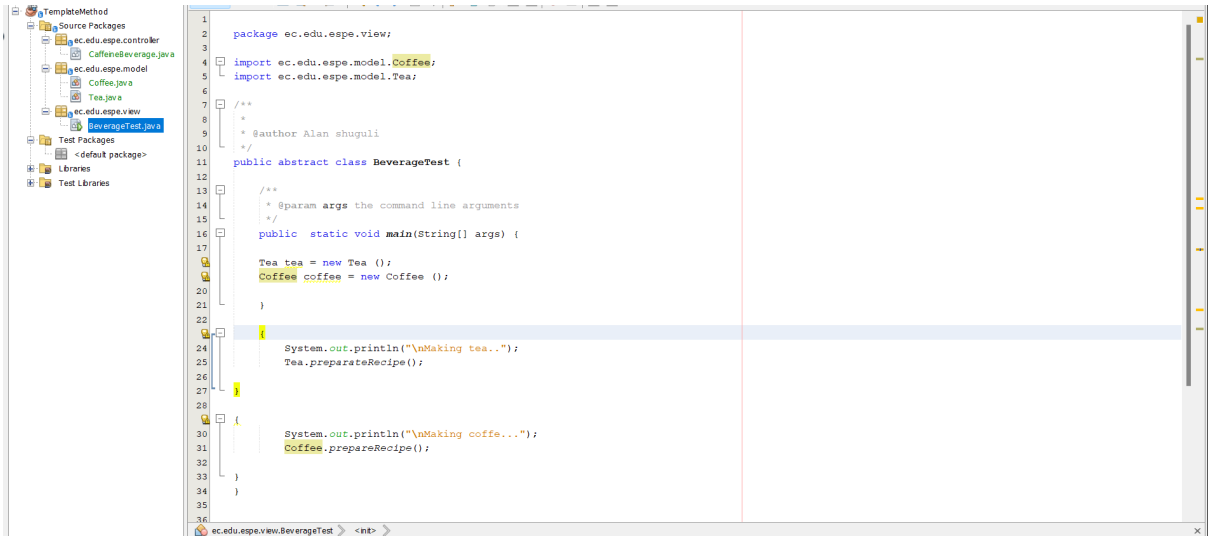
35 SANCHEZ MISHQUERO JOSE FRANCISCO

Template Method is a behavioral design pattern that allows you to define the skeleton of an algorithm in a base class and allows subclasses to override the steps without changing the overall structure of the algorithm.



36 SHUGULI REINOSO ALAN JESITH

Template Method is a behavioral design pattern that allows you to define the skeleton of an algorithm in a base class and allows subclasses to override the steps without changing the overall structure of the algorithm.

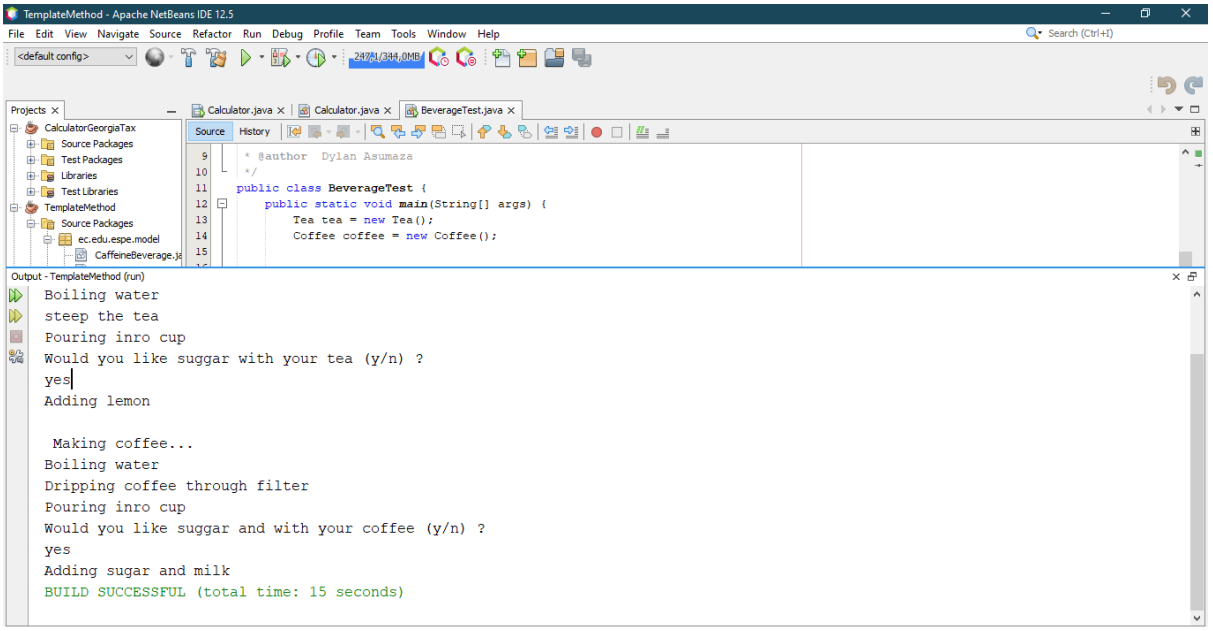


37 SIMBAÑA SIMBAÑA JONATHAN GUSTAVO

Template method is a serie of algorithms that are almost alike in different parts of the software. Therefore, are parts in common in the code in each particularly class, but the implementation at all is different.

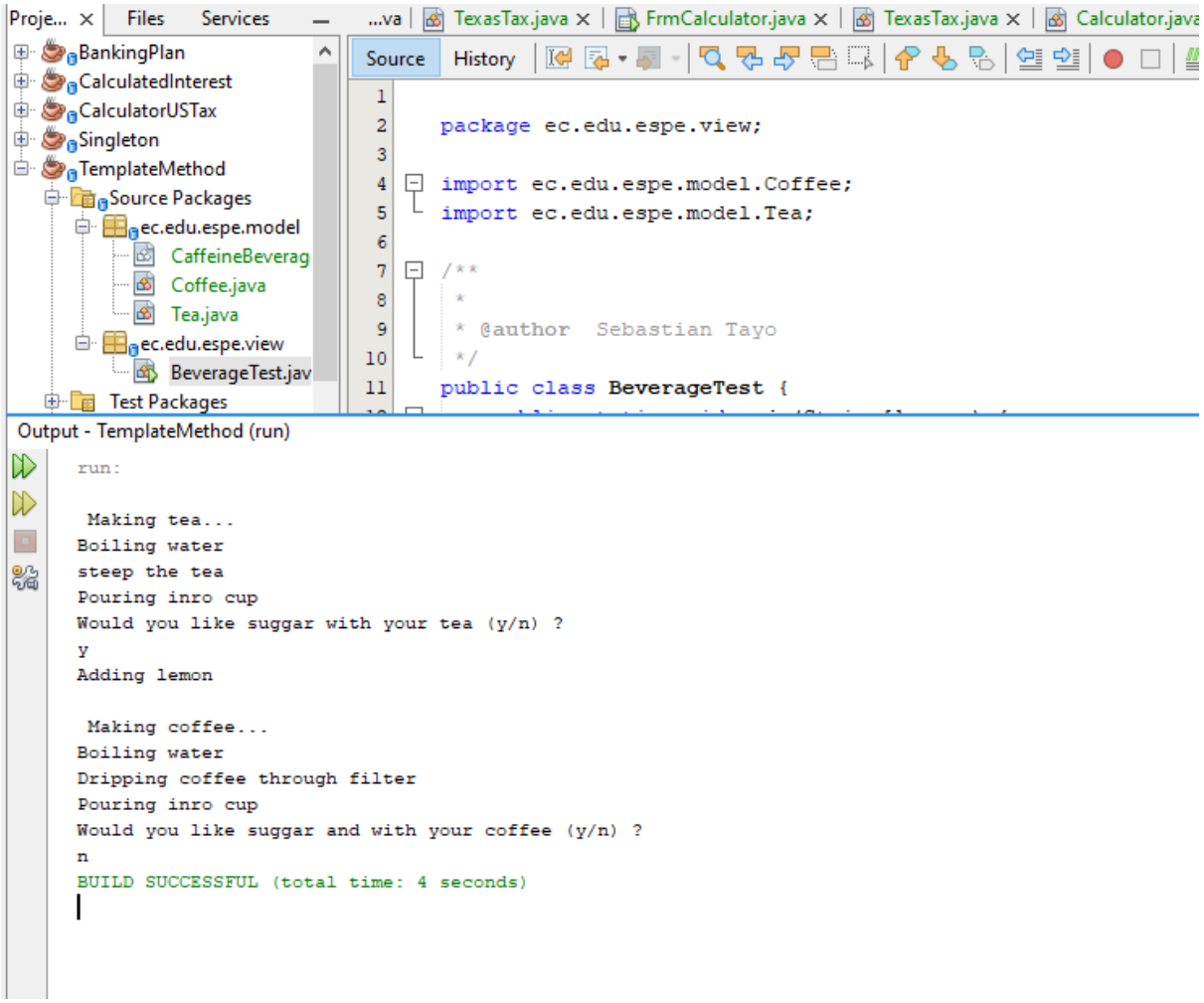
38 TAPIA ALBAN ANDREA JULIANNA

Template method consist of a serie of algorithms that are almost alike in different parts of the software. Therefore, are parts in common in the code in each particularly class, but the implementation at all is different.



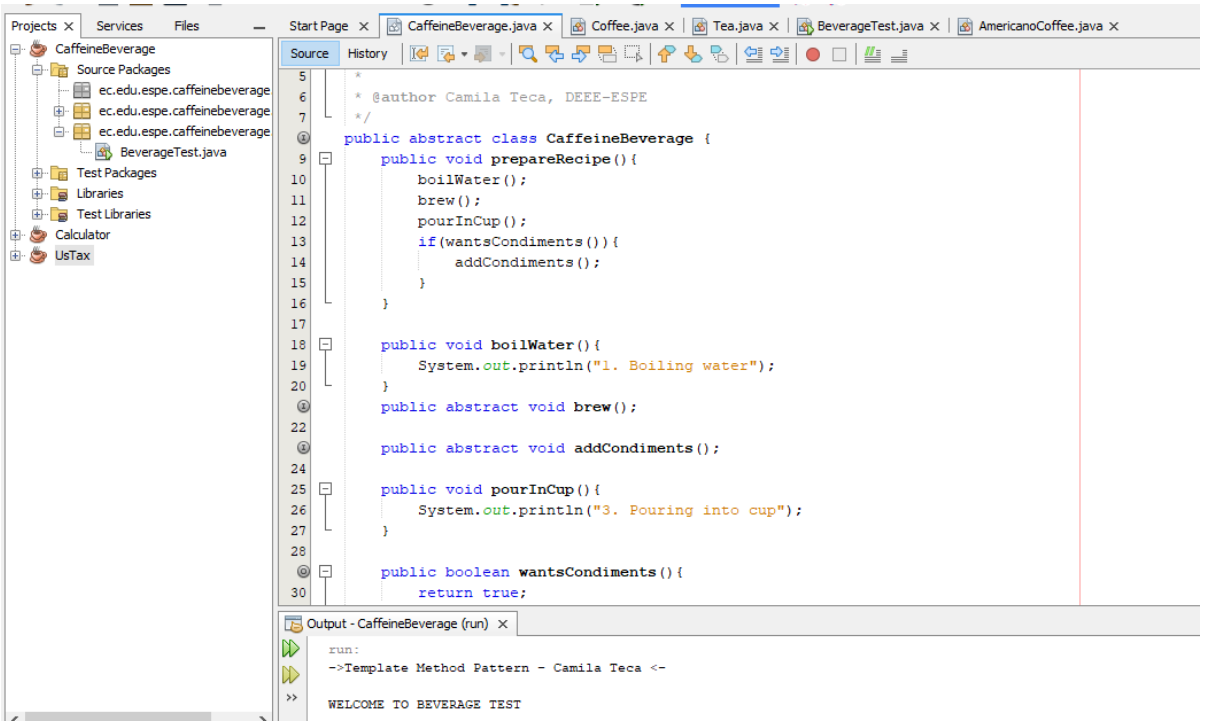
39 TAYO RUIZ SEBASTIAN ALEJANDRO

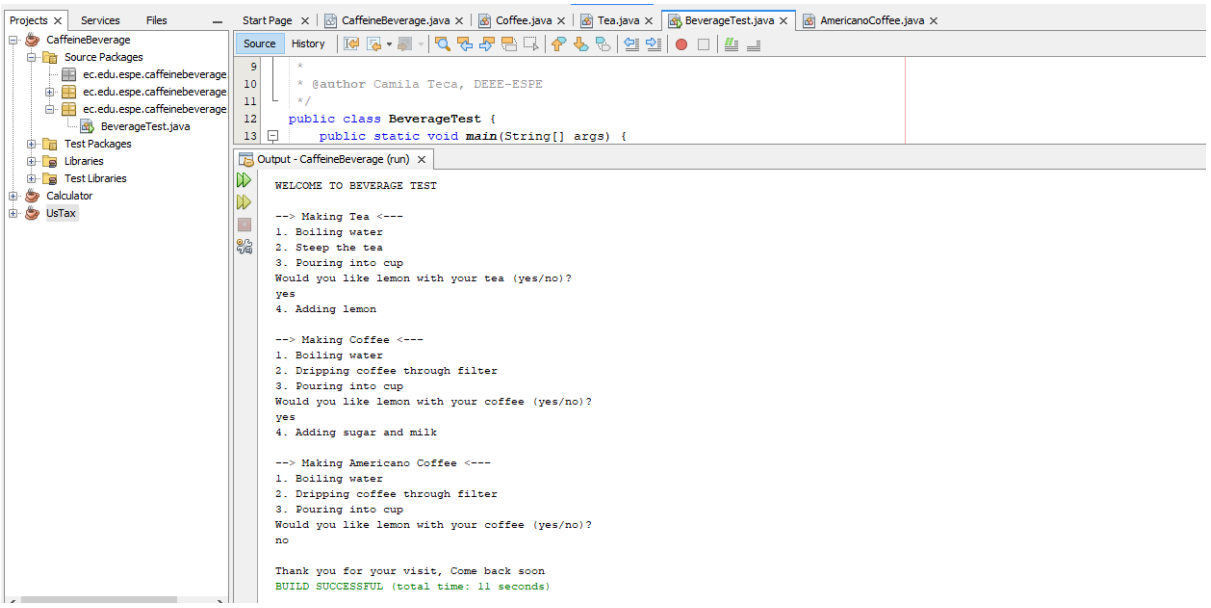
We use the Template method to create variations of a class that has very similar methods or operations, for example for one floor plane we can create multiple models of houses, so we can describe the Template method like a skeleton for multiple classes.



40 TECA TELLO CAMILA MILENA

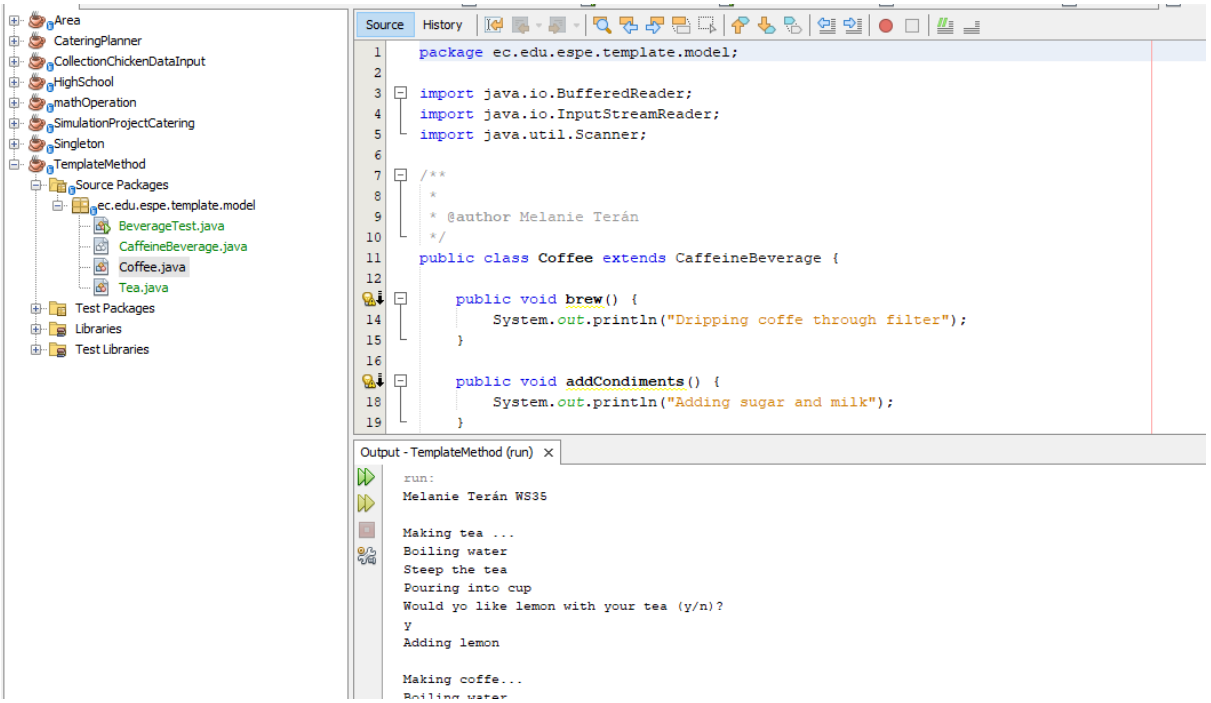
The template method pattern gives us a structure of how an algorithm has to be executed, it indicates the steps that algorithm has to be executed. Some variations in the algorithm could change but the structure or the order of how it is executed does not change. This is given in the base class and the variations are given in the child classes.





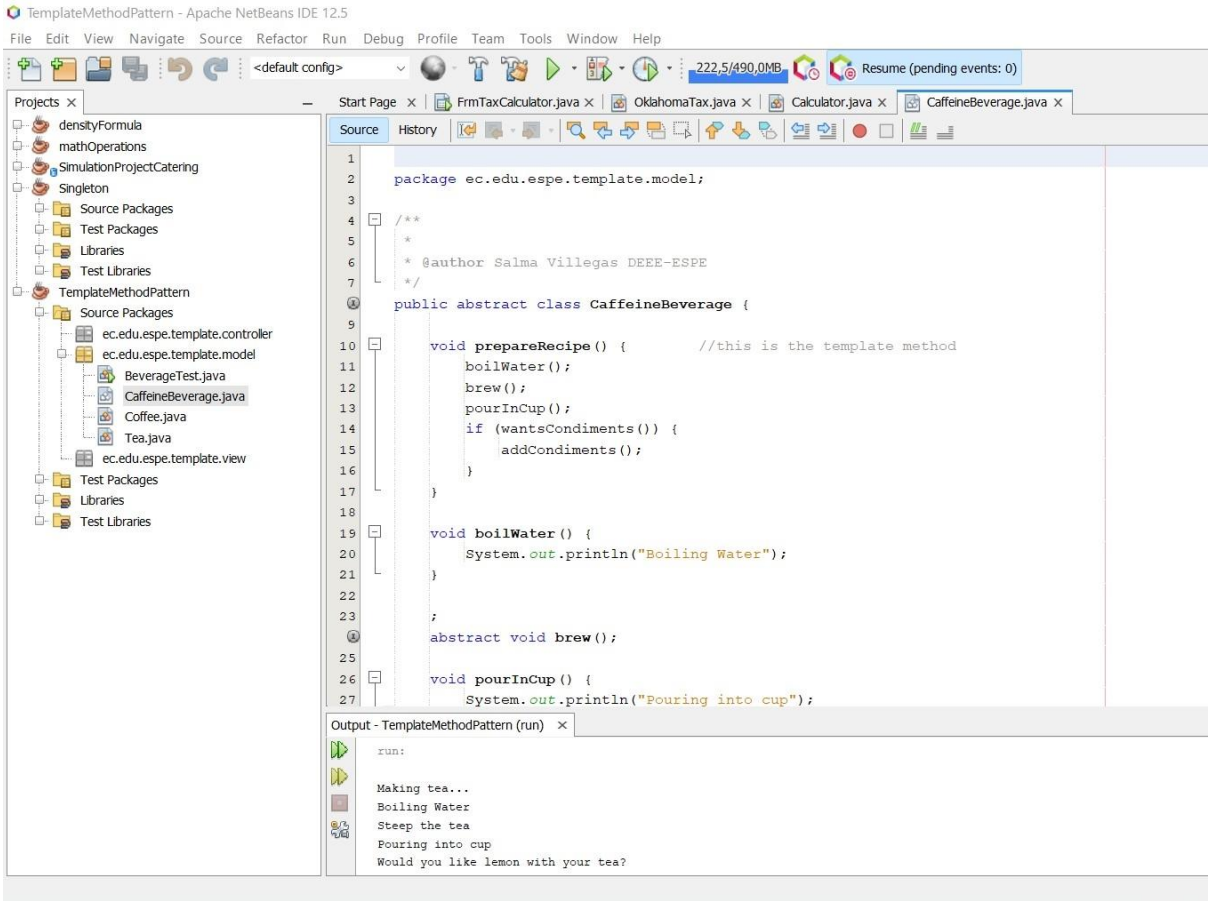
41 TERAN FLORES MELANIE ELIZABETH

Template Method is a behavioral design pattern that defines the skeleton of an algorithm in the superclass but allows subclasses to override steps of the algorithm without changing its structure.



42 VILLEGAS ESTRELLA SALMA ABIGAIL

The main purpose of the Template Method pattern is to define a common skeleton for an algorithm and leave the implementation details for the children classes. This allows us to change its behavior by overwriting the details through inheritance but the general behavior will be defined in the parent class.



43 ZEAS CLAVIJO JOEL ALEXANDER

Template Method is a design pattern that allows to define the form of an algorithm in the database, it also allows subclasses or children classes to overwrite the steps already entered without changing the general structure of the algorithm and without having to write them again, provides users with simple methods to extend functionality through inheritance.