Brewery Control System

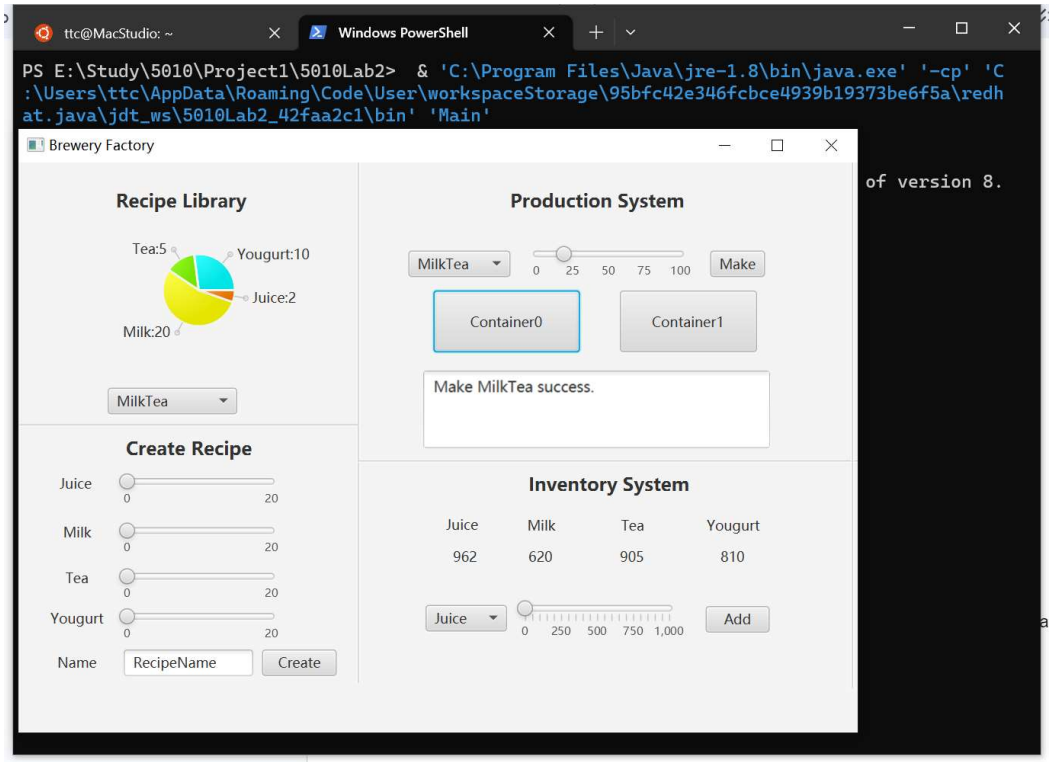
Siyang Feng

1.Abstract

This brewery control system is composed of an inventory system, a production system, and a recipe library with recipe creating function.

2.Requirement and packages

I compiled this project by jre-1.8 in my computer as following pic shows:



This brewery control system doesn't use any external library except Javafx. And Javafx is only used to develop its GUI.

3.Functions intro

(1) Create Recipe

In the lower left corner of the software interface, you can select your ingredient ratio, then enter the recipe name and click create to create this recipe.

(2) The Recipe Library

In the upper left corner of the software interface, you can select the name of the recipe and then you can see a pie chart showing the required ingredients of this recipe.

(3) Make drinks in batches and clean containers

In the upper right corner of the software interface, you can select the name of the brewery and then create it in batches. You can see the production process on the container during production. The container needs to be cleaned after the production is completed, click to clean it.

(4) Add ingredients to the Inventory

In the lower right corner of the software interface, you can select ingredients and add them to the library in batches.

4.Complexity analysis

(1). Weighted Methods per Class:

Attributes: 29
Methods: 20
Lines of code: 309
Total Score: 358

(2) Depth of Inheritance Tree:

Score: 1

(3) Number of Children:

Score: 1 (This program has only one inherited class.)

(4) Coupling between Objects:

Score: 2
ViewController class is dependent on the RecipesLib class.
Main class is dependent on the ViewController class.

(5) Response for a Class:

Methods in the class: 20
Method calls outside the class: 19
Total Score: 39

(6) Cohesion across Methods:

This metric does not contribute to a numerical score.

Overall Total Score: 358 (Weighted Methods per Class) + 1 (Depth of Inheritance Tree) + 1 (Number of Children) + 2(Coupling between Objects) + 39 (Response for a Class) = 401