

CSIS0396A/COMP2396A - Assignment 3 (b)

Due: 26th Oct, 2014 23:30

Introduction

This assignment tests your understanding of **inheritance** and **polymorphism** in Java. This assignment consists of two parts. You have already implemented the **basic requirements** of the program in part (a). Now, you have to **extend the program** in by submitting **additional** files.

Files submitted in part (b) must work with the files in part (a) unmodified.

Task

You need to implement a new main program, `SmoothieShopB.java`, which will replace the original ordering system (`Smoothieshop.java`).

Ingredients

In the new main program, orange is not available as the ingredient. There are two new ingredients, peach and pineapple that can be added to a smoothie. Here is the summary of the new set of ingredients and their volume.

Ingredient	Volume	Ingredient	Volume
Apple	40-50ml by random	Pineapple	75-90ml by random
Orange	50-60ml by random	Coconut	60-80ml by random
Banana	35-40ml by random	Chocolate chips	30-40ml by random
Melon	50-70ml by random	Milk	Always 100ml
Peach	30-35ml by random	Vanilla ice cream	40-45ml by random

So when the program is executed, the following menu should be displayed instead:

1. Apple
2. Banana
3. Melon
4. Peach
5. Pineapple
6. Coconut
7. Chocolate chips
8. Milk
9. Vanilla ice cream

What would you like to add to your smoothie?

Please enter your choice (1-9, or 0 to finish the order):

Containers

In the new main program, there are 4 possible containers that can be used (with pineapple added).

Container	Capacity
Plastic cup	Always 300ml
Melon	4 times the volume
Coconut	5 times the volume
Pineapple	2 times the volume

All other operations is unchanged.

Marking (35% for part b)

- **15% marks** are given to the **program design**.
 - Your program must make good use of the existing program in part (a).
- **20% marks** are given to the **functionality** of your program.
 - Your program output must be **identical** to what is described in this document, with the exception of the trailing spaces at the end of each line of output.
 - Please ask us on Moodle or by email if you are not sure about any of the requirements stated in this specification.

Submission:

Please submit all new source files (* .java) in a single compressed file (in .zip or .7z) to Moodle. There is no need to re-submit the files in part (a). **Late submission is not allowed.**

Do not submit .class file.

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