**Lab Task: Four**

This assignment contains a single task to implement the given design structure in Java language using Object-Oriented Programming (OOP) techniques (or any programming language that supports OOP). Make sure, that your code is neat, clean and thoroughly commented. You must use meaningful variable names. This assignment requires you to use the **\_\_\_ pattern**. The catch is we are not going to tell you the appropriate pattern name. It is your task to find the right pattern/s that fit/s here.

**Vending Machine:**

**Description**

You have to implement a coffee vending machine. Coffee machine works as follows:

* Machine accepts only coins of 10, 20 and 50 cents worth.
* Machine can prepare two types of drinks: Coffee and Cappuccino.
* Coffee is 1.20 and Cappuccino is 1.50.
* You can insert money and eject inserted money.
* When you select a beverage by pressing corresponding button, if there is not enough money, it gets ejected automatically.
* In case if there was enough money, the change should be returned and beverage should be prepared.
* When beverage is ready machine waits for the cup to be taken and only then you can make next order.

Your task is to implement coffee vending machine simulator program. You may assume that there are at most 5 cups of each beverage and after it runs out, you won’t be able to buy it anymore. The remaining money after buying a drink should be returned in coins of 10, 20 and 50 cents worth.

**Note: all source codes will be checked for plagiarism. Do not try to cheat!**

**Assignment Submission Instructions**

1. A docx file which will describe your assumptions.
2. You have to add all the class files in the **VendingMachine33.java** file, where 33 is the roll number.
3. Finally attach each of the files separately in the assignment and then submit. **Don’t zip the all the files.**

**Don’t forgot to turn in the assignment and finally submit it.**