

Coding Assignment 4

1. Create Code4_XXXXXXXXXX.cpp

Copy your working version of Code3_XXXXXXXXXX.cpp to Code4_XXXXXXXXXX.cpp.

2. Remove cout from ~CokeMachine() in CokeMachine.cpp

3. range based for loop

Your code should be using a for loop to print out the machine menu

```
for (i = 0; i < SetOfCokeMachines.size(); i++)
{
    cout << i+1 << ". " << SetOfCokeMachines[i].getMachineName() << endl;
}
```

Convert this for loop to a range based for loop.

4. Add class VendingMachine

Create VendingMachine.h and VendingMachine.cpp

Move the following from CokeMachine to VendingMachine. The access should not change.

```
getMachineName()
setMachineName()
getChangeLevel()
incrementChangeLevel()
getMaxChangeCapacity()
displayMoney()
machineName
changeLevel
maxChangeCapacity
```

5. Change VendingMachine to an abstract class.

Set incrementInventory() and getMaxInventoryCapacity() and getInventoryLevel() to pure virtual functions in VendingMachine.h

6. Change CokeMachine to publicly inherit from VendingMachine.

Please note that no new member functions should be added to accomplish this. You will need to alter how displayMoney() interacts with the other functions. The rubric will have a specific check for this and points will be lost if new member functions are added.

7. Update your makefile to include VendingMachine.h and VendingMachine.cpp

8. displayMoney()

`getChangeLevel()` currently returns the change level after being converted to the display version – with \$ and a decimal. Remove the call to `displayMoney()` from `getChangeLevel()` and `getMaxChangeLevel`. Call `displayMoney()` as need to display money.

9. Add a map to Code4_xxxxxxxxxx.cpp

The `map` will be used to create a Coke Receipt. The `map` will keep track of how many Cokes are bought from which machines and print a receipt when the program ends.

Your Coke Receipt

Machine Babs Bunny : 1

Machine Daffy Duck : 1

Machine Fog Horn : 1

We are making the assumption that none of the Coke Machines will change names while we are buying Cokes.