

CMT115 – Homework 2

Due Date: Nov 22nd, 2010

For this homework you are going to be adding to the Java vending machine. You will be adding a new class to handle the collection and dispensing of the change in the vending machine.

The Class

CoinDispenser class

- numNickels : Number of nickels in the machine (private)
- numDimes: (private)
- numQuarters: (private)
- numDollars: (private)
- public int getNickels(): Returns the number of nickels in the machine
- public int getDimes()
- public int getQuarters()
- public int getDollars()
- public CoinDispenser() : initialize empty coin dispenser, start each type of coin off with 10 coins.
- public void addNickels(int num) : Insert some number of nickels
- public void addDimes(int num)
- public void addQuarters(int num)
- public void addDollars(int num)
- public boolean canMakeChange(int amount): Returns true if there is enough change for the amount requested, returns false if not.
- public int [] makeChange(int amount) : Returns an array of coins for the amount requested, and removes them from the balance of coins. Position 0 is dollars and position 3 is nickels.
- public int [] empty() : Returns an array of coins for the amount of change in the device and empties all the coins. Position 0 is dollars and position 3 is nickels.

Notes

- Make an instance of the coin dispenser in the vending machine. Connect it so the vending machine runs all of its coins through the coin dispenser.
- Make sure that if somebody hits cancel, they get their change back and the correct amount of change is in the dispenser.
- Implement **all of the functionality** on the **service menu**. For the reload item, you may simplify this to have it just reload that position of the machine back to a full five items of the specified type.
- The insert coin menu should be working correctly.
- All of the main menu features should be working **except** the insert card. It should prompt for a card, but nothing happens once it is inserted.

Grading

CoinDispenser 50 points

Added Vending Functions 30 points

Coding Style 20 points

Submission

Save your work as **HW2.java**. Submit your work through Blackboard. If there are any problems let me know.