Second Chance Assignment – Vending Machine Finite State Machine

My modification to the main part of the assignment was simple, as I only had to change the state before calling DoState() again when the user tries to buy something with no coins. However, I am surprised that I forgot to manually test that state, so I decided to make some Unit Tests to further improve the project. It only seems fitting to write some automated tests for an assignment where I forgot to manually test all cases. I also fixed a bug where the application would quit if the user inputted an option that was not valid, since the input was not being saved correctly even after the method had been called again.

The Unit Tests that I wrote mainly concern the singleton machine outputs and the beginning states of the vending machine, as the flow of the state machine is controlled by user input. The behavior of the singletons is the same no matter what the user enters, so I should make sure that those work in a vacuum first.

The next time I do an assignment, I will make sure that I manually test everything, even things that are not “expected” like trying to buy an item when the user has not inserted enough coins. In the real world, users almost never use applications in the exact way that they were intended to by developers.