Emily Lincoln CSE 20 Assignment 10.1 12.3.2021

Find my code on GitHub: https://github.com/emilyjcc/BeverageFountain.git

The class BeverageFountain is a class based around soda fountains and drinks and various actions around them. The user initially inputs a drink size, a type of beverage, and whether or not they want ice in it ("ice" or "no ice"). The user's preferences on ice and drink size are stored in data variables. The program then checks if the inputted drink is in the preexisting list of drinks, stored in the class variable possible drinks as a list of lowercase strings, and if it is, the selected drink is added to a data variable as well. The user can also go back and reset whether they want ice or not with the add ice setter method, which doesn't take any input other than self. They can also get the whole drink menu with the drink menu getter method, or the size of a beverage with the get drink size method. Neither of them require an input either. For a smaller preset list of drinks, the user can also add almond milk with the sub almond milk() function, which tells the user whether or not they can add almond milk to their drink. This method creates a data variable, self.milk added, which checks if there's milk in a drink or not. There's also the is it healthy() function, which contains an integer list of caloric values for the beverages in possible drinks. When combined with possible drinks to create a dictionary, the user's drink in a data variable can be matched to an amount of calories. This method also takes into account if the drink contains almond milk, in which case if it does, it adds the calorie count of almond milk to the total calorie amount. If the final calorie count of the drink is over 120 cals, a message is returned to the user stating that it's unhealthy. If it's under or equal to 120 cals, a message is returned to the user stating that it's healthy.

The demo program initializes an object of the class, *drink1*, lists the possible drinks in the BeverageFountain class, adds ice to the drink, attempts to add almond milk, gets the size of the drink, and checks if it's healthy or not. All examples in the demo program are preset, so the user just has to hit the run button.