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Final Project Summary

For my final project, I created a program that creates a coffee inventory based on user input. The program presents the user with a menu of six options as well as an option to leave the menu and stop the program. One option is to add a new coffee shop. This option prompts the user to enter four values (name, city, rank, favorite drink), and creates a new class object that gets appended to a list. The program validates that the correct number of values were entered and that the rank is an integer value. The second option allows the user to update an entry. When this option is chosen, a new menu is displayed for the user to select what component of the object they want to change (name, city, rank, drink.) To make the update, the program utilizes a class method that sets the new value for the object.

The third option allows the user to remove an entry from the object list. When this option is selected, the user is prompted to enter the name of the shop to remove. As like the previous option, the program will validate the coffee shop exists in the list, and then remove it from the list. The next option available for users is to view the entire inventory. This option utilizes the class method \_\_str\_\_() and will iterate through each class object in the list. A fifth option available for users is to display the top five coffee shops within the inventory. To do so, the program will utilize two class methods to get the rank and name of each object within the list and append them to a new list. This new list gets sorted and then goes through a for loop iteration to print the top five. The last option allows the user to display the \_\_str\_\_() class method for a specific shop. The user inputs the name of the shop, the program validates that the shop exists, and then prints the description to the console.

The program also has the capability to read and write to the file that is holding the inventory data. This will allow the user to be able to grow their inventory list without having to reenter any previous data. As well, the program validates the inventory file exists and creates a new file if the inventory file does not exist.

The class CoffeeShops is used to create objects for the coffee inventory and comprises of the following attributes: name, city (private), rank, favorite drink, local (private). The default city is Birmingham, rank is five, and drink is drip. The class has four private methods: \_\_set\_local(), \_\_update\_city(), \_\_update\_name(), \_\_update\_rank(), and \_\_update\_favorite\_drink(). The \_\_set\_local() will set the attribute local to True if the city is equal to Birmingham or local to False if the city is not equal to Birmingham. The four private update methods are accessed through the public update\_shop() method. Each attribute has it’s own get method. Lastly, the class comprises of a \_\_str\_\_() method that will return a string description of the class object.

This program is useful for those that want to track metrics on the coffee shops they visit. For example, this program allows for a more tailored inventory system as compared to public review sites. This way, if a user can’t remember their opinion about a certain shop, they can search their own personal inventory for clarification. As well, this program can be useful for writers that are tasked with creating a list of the best coffee shops in a state or the country. This program would allow the user to have an organized, editable list of entries without having to worry about navigating spreadsheets or word documents. Overall, this program simplifies the task of creating a user-defined inventory.