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Foundations of Programming: Python

8 June 2020

Product and Price List

# Introduction

This is a script that will allow a user to add names and prices to a text file. This script is a cumulation of everything covered so far in the class with the addition of Properties

# Drafting the Script

As will the past several assignments, this script is divided according to Separation of Concerns. The first class in the Data division starts with creating the properties (figure 8.1). Properties come in pairs to both get the data and set the data, appropriately named, “getters” and “setters” respectively. The setter property allows for creating exceptions. In this script I set an exception to ensure the user only enters letters for the product name and numbers for the product price.

**A screen shot of a social media post

Description automatically generated**

**Figure 8.1 – Getter and Setter**

Also introduced in this assignment is the use of Private attributes methods (also in figure 8.1). While it is not enforced in Python, an attribute is hidden or marked private with the use of 2 underscores (\_\_) at the beginning. This is to indicate to other developers not to use these directly.

# The Result

Whether this program is run in PyCharm or Terminal, the same text file will be accessed and updated. The program is first run in PyCharm (figure 8.2) to create the list and add the first couple products and prices then display them.

A screenshot of a cell phone

Description automatically generated

**Figure 8.2 – PyCharm**

After these items were saved, the script is run again through Terminal (figure 8.3). A product is added and displayed to show all items are in the list.

A screenshot of a cell phone

Description automatically generated

**Figure 8.3 – Terminal**

# Conclusion

This is script that will allow a user to type in a product and price to save to a text file. This script was written using features learned throughout the course of this class and adding on the use of Properties and Private attributes and methods.