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Software Design

The artifact is an upgrade of the first project that I worked on for this degree. It began to print out a calculated needed number of items for stock of apples and oranges. It has been upgraded to sufficiently handle errors, as well as accept many user defined inputs instead of the two developer defined items.

I selected this artifact first to show improvement from the beginning to now. I also used the artifact to show my ability to use well founded techniques in computing practices by utilizing object-oriented programming to store the data instead of having to individually create all data. This is the basis of the improvement; the use of objects allows for easy user definition of the multiple variables we need for each. The objects also allowed for quick and efficient expansion of the program. The plan going into the course was to show my ability to use well founded techniques such as object-oriented programming. Fortunately, I succeeded in showing that objective and do not have to update my plans to cover the course outcomes.

Honestly, there was not too much of a struggle when upgrading this artifact. After taking a quick look at the initial project I could quickly see a way to improve the program. Since it was quick to determine the structure I would use on the program I had more time to deal with any bugs and error handling, but with the simplicity of the program that wasn't much of an issue either. All I had to do was ensure the user did not enter anything that was not an integer for the stock and on hand values and this was easily done with value error catching and a loop back around to ask for a new input. I learned that I know a lot more about python than I used to. At times when looking at huge programs I feel like I do not know anything, but the fact that I could

quickly improve this program showed me that I have come a long way. It is something to be proud of and a way to know that I can get even better with some more work. After creation of this artifact, it was suggested to include a subclass with to show more OOP knowledge. I ended up doing that by adding a packaged item which gives the user results in the number of packages to order instead of single items. This object helped provide additional functionality and improve the user experience without adding too much work.