

Stashbuster Project:

As an avid knitter and certified fibre-a-holic, I wanted to design a system that would allow me to inventory each skein of yarn, and bump of fiber with their attributes. I would also be able to use that inventory to determine possibility of knitting a given project with the yarn in the stash.

1) Completed:

- I finished the basic structure of my Stashbuster design. It includes three inventories: Stash, Projects and Tools. They are stored as nested dictionaries in binary files using pickle. Each item in the stash, projects and tools has attributes that identify them.
- Every single bit of code is OO - with the exception of the two script lines needed to kick start the first menu. (Class Diagram attached as p.2 - excuse the hand-drawn nature)
- There is a functionality to search the stash for yarn for a given project (or just to query the database in general)

Not yet done:

- Filtering yarns for colour
- Determining projects could be made from stash
- Scraping the web for yarns
- Optimization of code - there are a number of places that code between files is almost identical - and I should be able to find a way to reuse it and 'object-ify' it.

2) Challenges:

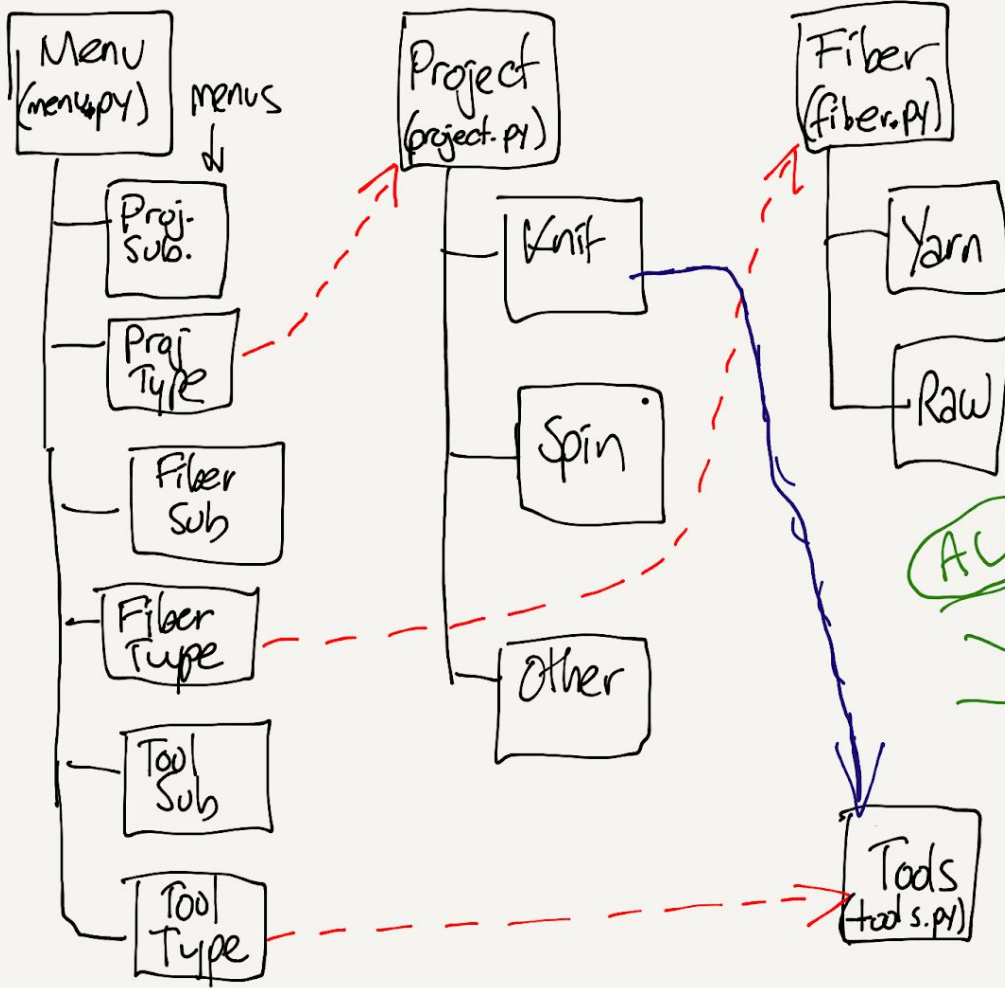
Setting up the menu system was a challenge - I originally had a zillion nested 'ifs' - but using a cute trick I found on stack overflow - I ended up using a dictionary as my menu entries and then writing small methods for each menu entry. This also makes it easy to add/subtract menu entries.

Figuring out how to store and recall the dictionaries was a challenge - just to ensure the data is there, in the correct format and to remember to recall and save anytime any of it changes (pickle). Json might be explored in future as now my data is all in nested dictionaries. Not sure of the pros/cons.

Sheer volume, to make the system work as I wanted was also a challenge (and hence why it is rather long! Sorry!). I did learn an awful lot about classes and how to use them to modularize the code (especially the idea of parent and child classes). Also, the fileops.py code was especially fun to finally figure out - and can be used in future as well as for this project!

3) Testing/Usage:

- Although the program will create new 'Projects' 'Tools' and 'Stash' binary files for you, I have also included 3 that have inventories already - this will allow you to test some of the features.
- To run, use command line and run the menu.py file using python 3.6+
- Once in the program, you can select from the different menus that you are presented with and play with the options. (Man, a GUI would be way easier!! :))
- There are some features that are not yet active



CLASS
DIAGRAM
STASHBUSTER
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