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Program 4/5 Design

For program 4/5, I was thinking of having a menu hierarchy like this:

- ABC Menu
 - Derived Ramen
 - Derived Italian
 - Derived Thai

I was thinking that Menu can have dynamically bound functions for reading data from an external file, calculating the price, paying, etc. It will also have a DLL class which will store the different menu sections that the user can step forward and backward through. For example, the ramen could have an izakaya (appetizers) section, then choosing ramen types, then add-ons). Each node of the DLL will probably have a Section class or some way of storing the information of the user's selections and displaying the current menu section. The data structure will be an array of DLLs since my main will have an array of Menus (just one of each type for testing purposes).

For the external data file, I was thinking of something like every line is a section of the menu, starting with the section's title followed by the items. For example, for ramen:

Izakaya\Chicken Wings-\$5,Edamame-\$2,etc...

Ramen\Shio-\$10,Shoyu-\$12,etc...

My application will be fairly simple, just choose which menu to buy from (which index of the array), then walk through it and have methods for buy, remove, next, previous, finish order, and whatever else I need.

For step #2, I have to implement a balanced tree of orders, and I will probably do a 2-3 tree. I will find some way of condensing order information (name, items, total price, etc) and sending it off to the tree for insertion. I will probably sort by name, and collisions will be handled by the LLL.