Assignment #3 Writeup
Brandon T. Wood
CSCI E97
October 28th 2018

Did creating the design help make the implementation easier?

I really struggled to design something that you could take and run with, but after the the design and implementation started I immediately ran into trouble with my implementation concept and design. From there I tried to salvage my design by working around this but it only increased in complexity over time. Then when the test sheet was finally published I ended up rewriting everything to work to that interface instead. So no, designing first just made me have to rewrite everything due to poorly thought out requirements that contrasted what we were given in the actual paper.

How could the design have been better, clearer, or made the implementation easier?

I think I clearly described how it worked, Gerald in our review seemed inclined to agree. I think because we had to use the Observer and Command models(They were good fits) for this project there was very little design room for anything simple.

Describe any implementation changes that you made to your design and how they continue to support the requirements.

I greatly extended the design of my model in order to support the need for more information the rules required in order to execute their goals. Things like, removeAssociation and removeValue. Though one of the biggest flaws in my design continues to go unpatched which is that the Sets that get passed back always need to be iterated over to parse, which is dumb and a limitation of Sets only in Java(the worst language).

Did the design review help improve your design?

It did in the ideas shared, I suggested to Gerald that he put the rule checking into the rules to increase modularity and he suggested I use regex to parse those rules instead of complex string array manipulations.

Comments about your design from your peer design review partners

Gerald:
You have a lot of detail, I like your write up.
Your UML isn’t complete but your sequence and use case diagrams are done.

Comments provided by you for each of your peer design review partners.

Gerald

Your write up could use some work, but your class dictionary is awesome and very detailed.
I suggest using Astah to create the use case diagram. It is very easy. There is a tutorial video on the canvas lectures page. This would make it easier to understand your use case diagram. The alternative may be to have a caption that describes which shapes represent which component of your use case diagram.

I suggesting embedding the sequence diagram in the implementation and use it as a tool to help readers navigate through your implemented classes.

I also suggest referencing the requirements paragraph in the implementation details. A simple sentence like "this will satisfy the command pattern requirement" will do.

Try adding your exception classes to the class dictionary. For exceptions, try to provide properties and the flow of control of the exception between different classes.

Overall, I suggest adding a bit more detail to some of the sections in the design document.

Qanit Al-Sye

- I like the use case diagram. However, I don't understand the need for Technician as an actor with the current requirements. Also, if you are showing Ava and Fridge, should you also include the other appliances and how they interact with the model and controller?
- In my implementation, all the rules would be baked into the command objects themselves. Hence I have made Command objects for each event that can be triggered. Your's is similar where your rules are command objects. But you have a class per device/appliance type. Do you have all the individual rules for a given appliance within the execute method?

- I am assuming you are using the observer pattern but it would be good to depict it in your class diagram.
- The auth risk you mentioned is a good one!
- It would be good to show the sequence diagram for a particular event or usecase. Otherwise it is very generic.

Additions Added following review

I attempted to mend all criticism of my design document that I could make fit within the deadline's time frame.