## Reflection

The bug that challenged me the most was a very subtle one. In my cart page, to display all the items the user has in his/her cart, I first generate a few copies of templates of items then I use a function called "update\_item" to fill in content of the items, like name, price, quantity etc. To do this, I embedded this function in a for loop with incrementing variable "i". in "update\_item" I have another function called "get\_index", which is given the name of the product and returns an index. In this function there is also a for loop with incrementing index "i". My browser's interpreter got confused with these two "i"s, which are in two separate functions. Therefore every time I log my page it gets into an infinite loop. I took me a long time to figure out what went wrong because I had absolutely nothing in my code that could possibly generate an infinite loop situation.

I overcame this bug by printing out "i" in many places and realized in my first for loop, the "i" wasn't incrementing one by one; it however went from 1 to 2 and to 4, then back to 1. Then I realized there must be some kind of aliasing that caused an unpredictable value for "i".

The link to my page is: <a href="https://fengyupeng.github.io/pui-assignment-4/">https://fengyupeng.github.io/pui-assignment-4/</a> paper prototypes and digital prototypes are on my Github repository.