***Question #4 (10 pts.)***

During our discussions of design patterns over the last two weeks we’ve discussed many reasons why incorporating them into your software design can be advantageous. Briefly discuss one instance where using a design pattern may not be beneficial. Maximum points will be earned on this question for providing discussion presented during lecture and not on information obtained from the internet.

Solution should be under **package org.howard.edu.lspfinal.question4**. Embed answer into this document and upload to your repo. E-mail to [bwoolfolk@whiteboardfederal.com](mailto:bwoolfolk@whiteboardfederal.com) if you have difficulties uploading to your repo. Make sure you get confirmation that I received it.

**Grading Criteria:**

**10 points**. For correctly identifying discussion from lecture

**5 points.** For identifying a reasonable answer but it does not correlate to class/lecture discussion.

## My Response:

A discussion in class about when using a design pattern is not beneficial is when the design pattern is too complex. This goes against the “bang for your buck” when using design patterns since it would increase the time to implement the pattern, taking away time from being able actually to program and solve the problem. Especially if the problem trying to be solved is either simple or requires much more time to solve in a particular design pattern instead of just coding it up. You particularly mentioned the Abstract Factory pattern as being too complex and just confusing more than helpful. This requires important development time to focus on understanding the design pattern. Overall, each problem lends to the fact that if it is too complex, it will also be harder to maintain since it would require new maintainers/developers to be very familiar with the design pattern to understand the coding structure and, from there, understand the code. The design pattern should be intuition and not require so much that it takes away a lot of time development and aid within the development process.