**Reflection**

Sharath Reddy Vadicharla

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Professor: Dr. Michael Nowak

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It was simple to comprehend and apply one pattern. This method was made simple and straightforward after reading the book, looking over the examples, and then playing with the code. I began the final project early and began implementing single patterns right away. I began with the decorator pattern and worked my way up to the factory pattern. This was not a difficult task for me. When I had to apply more than two patterns, I got into difficulty.

The most difficult part of the project was combining multiple patterns into the same software and creating the user interface. I ended up with a GUI that worked and performed what I wanted it to do, but it looked awful and gave me a lot of headaches in the process.I implemented one design, then tried to push another on top of it, and then tried to do the same with the third. I didn't have a strategy for all of the patterns that would be used, so I had to shove them into the code in an unnatural way. I'm much more aware of the need of not employing a pattern solely for the sake of employing it. If a pattern makes sense, it should be employed; but, it should not be used solely for the sake of using it. I didn't have too many surprises along the process, but in hindsight, I should have planned ahead of time to incorporate all four patterns into the design. It would have helped tremendously if I had a simple idea of how I would go about doing it.