

⇒ Contract Objectives

- o To enrich my knowledge of the Java programming language and computer science as a whole
- o To provide an extra challenge for me in CSC 116
- o To help me develop a better understanding of all of the processes that go into making a full-fledged Java GUI program

⇒ Work To Be Completed

- o I will be using the Java language to program a strategy game that utilizes a graphical user interface. The game's main feature will be an overhead view of a blueprint of a city. The player will utilize this map for the majority of the functions within the game. In addition, a basic text window will be situated close to the map which gives instructions to the player. The player will also have the ability to bring up a menu for settings, options, exiting the current game, and anything else that may be needed in a menu such as this.
- o This program and all of its components and supporting materials will be delivered to Dr. \*\*\*\*\* by a date no later than April 20, 2016.
- o Aside from any extra readings that Dr. \*\*\*\*\* would have me complete, I will also be doing a lot of independent reading because of the extensive knowledge required to create a Java program such as the one I am planning here.
- o I will also be completing any other extra work that Dr. \*\*\*\*\* assigns to me.

⇒ Student Goals

- o I didn't really know what programming was until I started playing around with it my senior year of high school. I never had access to any resources that could help me learn to program. I didn't even have my own laptop to use to experiment with coding. As a result, I never knew how much I would enjoy the concept of programming.
- o Once I started learning Python on Codecademy.com, I couldn't stop. I wanted to learn everything there was to learn about computers and how they worked. So instead of continuing on with aerospace engineering as I had originally intended (because I think aircraft and spacecraft are amazing as well), I decided to change my major to computer science.

- o So with that in mind, I absolutely love CSC 116 and everything that it teaches me. When the USP faculty were explaining honors contracts they said to complete them for classes that you really enjoy, so that's exactly what I'm doing. This honors contract will easily complement my own goals as well as the goals of CSC 116.

⇒ Student Development

- o Self-Reflection: Upon the completion of my honors contract I should be able to determine how enthusiastic I truly am about computer science and whether or not I want to make it my profession.
- o Independent Learning: I have already begun learning a lot of Java on my own, and I will have a lot more textbook skimming and Googling in my future as I progress through the extra work. The process of independent learning will definitely stick with me once I complete this honors contract.
- o Project Design, Creation, Completion, and Testing: Considering that the extra work established by this contract is, in fact, creating my own Java program, I will develop many important skills that directly affect my ability to design and complete my own projects. I will have to put a considerable amount of effort into the design process of my program as well as putting a lot of time and effort into completing the actual program. And after all of that, I will still need to conduct numerous extensive tests to ensure that my program works properly. Everything that I have to do for this project will ultimately enhance the skills that I will need to use when developing programs in the "real world".