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**Course Reflection Essay**

## **Introduction**

I have been asked to describe five things that I have learned in this class. I have learned more than five things during this class, so it is hard to pick out the five top things. However, this is not insurmountable, most of the things that I've learned that I'm mentioning in this paper are things that I can use to get a better job or using for work or personal projects that I would like to be able to have programmed for myself.

## **1st Topic**

In this class, I was introduced to GitHub Repositories. The ability to store programs and data on the web, while being able to organize it and access it from my phone as well as another system. I feel this is better than just having a cloud space as the visual code is accessible during the editing process, even on my phone.

I plan on being able to keep this structure and opportunity in the future as I can see the benefit of being able to separate programs, classes, and personal data among repositories, while maintaining security over said data as well.

## **2nd Topic**

The second thing of importance that I learned from this class, was Python programming.

Not only was this an easy language to pick up, but I can see the future job opportunities increasing the more that I become proficient in it. I notice there are a lot of Google articles stating that the government is wanting to reduce C files and curtail it completely in the future. I am not sure if this is a legitimate concern, or just hype to remove a programming language to reduce the number of people that are familiar with it. Regardless, it is a programming language that I see enormous potential in, and I think that it would be worth my time to invest more in learning what else it can do.

## **3rd Topic**

This next topic is related to Python in that it is a specific part of the language and capabilities. List, Tuples, and Dictionaries are a combination of the things that I enjoyed learning about.

I like that they are more object oriented in that I can have a list of words or a list of objects, in the language, it does not matter. I can see the benefit over a standard array. The ease of programming increases with the benefit of having this type of tool in the toolbox.

## **4th Topic**

Another Python specific processing tool, try-catch processing, is the next topic that I enjoyed learning. Any time that there is an easier error processing handler, I am interested. This makes coding and error handling a lot easier because the error processing can be identified and centralized instead of having to manage each possible error situation separately.

This is another tool in a toolbox for future jobs and personal programming and learning. By including the error type, the messages can identify the problem, and I can then identify what needs to be corrected and I get to learn more about coding without errors. Win – Win.

## **5th Topic**

The last part of the learning process involves the File Encryption/Decryption program you had us write. It was a simple encryption to change letters in a file and read from a file with the same encryption.

I can see the benefit of this in encrypting files and communication between myself and myself over the web. End to end encryption is a goal of texting, so having my own encryption scheme would be nice. It also points to learning more about how file transfer and data encryption can be accomplished to avoid unwanted information getting into hands of others.

I would like to figure a way to add a conversion notation into file before and after so encryption is tied to the file. I can see a future that as the technique improves, there would be a chance that older files might get left behind or forgotten about, then the encryption becomes a useless file.

## **Conclusion**

This ties back to the repository and having a means not only to identify a file but identify when it was generated and with what files/processing it needs to be decrypted.

All of this was covered in this class as well as objects and other items of interest. I am glad that there is another semester of Python so that I can learn more about what it can do and how it can be used to generate better programs and programming habits.

Thank You for your help and pointers in order to be better prepared for a future in programming outside the box that was used in the 80’s. I am enjoying learning the differences and being able to incorporate them into my programming style with the goal of being able to generate a passive income in my later years. I would love to be able to create an application or toolbox that others would use and change. Look at what simple programs are written on Google Play and how many novel ideas are reverse engineered and a profit is made from each. My eventual goal is to have that level of programming and ingenuity that others copy my work.