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ISM 1

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Original Work Assessment

My intention for the Original work was to create a program that takes in CSV files and displays the numbers as specific information. This program intends to educate myself about Python, integrated development environment, and the world of Data Science (programs like pyCharm). I applied knowledge from research assessments, other assignments, uDemy and drew upon my previous programming experience. Beyond this I also drew on information from interviews with masters in business, principle data scientists, and economists.

Methodology

- **Participants:**

I did not study others during my research in the sense that they helped me with coding.

Interviewing with 3 people, Bradley Shogren gave me a goal to work in Data Science to make business information more efficient, Vamsi Nettleluta taught me how to remain ethical in my programming, and Erick Castenada taught me good advice on how to learn and maintain my knowledge in coding.

- **Materials**

uDemy (Cost of \$160 seminars but earn official certificates), W3Schools, PyCharm Edu, GitHub, OneNote, JupyterNotebooks.

Reflection

At first I planned to have the full program completed for the first original work, and proceed with the artificial intelligence side of the project in my final product, but things have been turned sideways during development. As I am still in the process of learning Python I have found that creating a general CSV file reader that can interpret any kind of data (properly) is extremely difficult considering there are infinite possibilities to how a file can be sorted. In response to this my first submission is catered towards pre-sorted CSV files, and my final product will become a more general program, with better user interface, and a basic form of Artificial Intelligence.

Despite being humbled by the mountain that is an all-in-one purpose program it has brightened my creativity. I already have planned out multiple solutions such as a file sorter to allow for general reading of files! The subject of my program is the same to combine Data Science and Artificial Intelligence. To begin I wanted to save as much money as possible by researching independently as I have always, and using the free integrated development environment called "PyCharm Edu" this worked, but as I studied I realized the learning process was moving at a much slower pace and lacked direction in learning. The hardest part of learning is knowing what to study and clearing every base, most of which I felt I was missing. I then purchased Udemy, a website with lectures that allows me to make sure I cover the majority of bases from proven experts, and can earn certifications myself. After an interview with Bradley Shogren and seeing data extraction and formatting that his company requires employees to change manually, I decided that my project would be something to extract data and format it in a simple & efficient way so employees and people can stop wasting time working on sorting information and spend it interpreting the info. For example legal experts do not need to format emails and research for hours when they could have the important points brought to them and sorted in an easily digestible way to interpret and change the world. My goal remains ethical as I learnt in my discussion with the Principle Data Scientist for UnitedHealth Vamsi Nellutla as I had concerns that my program would be replacing jobs. My takeaway has been that as I develop my program it is not meant to take away the human element, it is meant to remove the busy-work of formatting that anyone can do so humans can focus on

interpreting and using the information to create the future. As I work on my program I follow closely the advice and warnings of Erick Castaneda a data scientist for Sam's Club with a strong background in economics at UTD that I interviewed to do things such as mark down all my code in Microsoft OneNote to look back on. Learning is growing, but if you have nothing to look back on you will forget some of your old code, and re-learning/repurposing old lessons is essential in coding and in life. With the release of my first original work I look forward to those who have helped me along the way's further advice, and gaining a mentor who can help me continue to develop this program into a reality.

Conclusion

Developing the CSV Reader is the beginning of a massive undertaking of a program that can take any general file and display viable data in a quick and well-formatted way and have artificial intelligence advise users on the info presented. The goal of the final program is not to replace humans as I continue to code, I take notes and brush up on the ideas of ethical programming. The true goal is to help remove the tedious parts of research presentation and allow people to focus on what they can do with the research presented.