<u>**Introduction to Programming Using Python**</u>

Exploratory Project Guidelines

<u>Introduction</u>

To conclude and exhibit what you have learned in this class, you will be completing an exploratory project. The purpose of the exploratory project is to practice using Python to solve real-world problems. In addition, you will be able to add the project to your own personal portfolio or resume at the end to display your skills.

<u>Choosing a Topic</u>

Feel free to work with any topic of your choosing. A common project idea could be to analyze data sets, including data manipulation and analysis, where popular Python libraries Pandas and Numpy would be useful. Kaggle is a popular site to find datasets. Another project idea could include building your own Python application through an online tutorial. Regardless of your topic, you will be graded on effort and completion of the project.

<u>Requirements for Submission</u>

Please send me all project materials by midnight on January 29th, 2021. This is the night before our last class, which is January 30th, 2021. I must receive your Python file and your Powerpoint Presentation. If you are analyzing a dataset, please send me the dataset as well. Feel free to send me any supplemental materials as well.

In class, we will be using the last hour or so for project presentations. You will be sharing your screen and speaking to the class, so please have your Python script and Powerpoint Presentation up and ready to go.

<u>Requirements for Presentation</u>

Presentations must be 7-minutes long. Within the presentation, you should include the following:

- Brief introduction
- The problem you are attempting to solve
- Why this problem is important to solve
- Why you chose this problem
- How you approached solving this problem: including finding datasets, tutorials, etc.
- Methodology: How you wrote your Python script & what you explored
- Results from your exploration: possibly graphs, outputs, etc.
- Conclusions and possible answers to the problem
- Further work
- Question Portion

While many of these topics will be including in your Powerpoint, you can also switch to your Python script to display your code to the class. Feel free to also explain any challenges you faced or code which did not execute properly.

<u>Grading</u>

The project will only be graded on effort and completion. Please try your best and try to incorporate concepts we learned from the class into your project. Please place questions into the slack channel or email me.

I am excited to see your projects. Best of luck!