CS Rubric – Charlottesville Crime

DS 4002 – Spring 2023
Due: May 3
Submission format: Upload link to github repo which includes all materials.

Individual Assignment

General Description: Submit to canvas a link to your case study repository.

Preparatory Assignments – None.

Why am I doing this? This is your opportunity to practice thinking like a data scientist. You will get experience using data to draw insights, and use those insights to inform meaningful change. In this example, you will use Charlottesville crime data to identify patterns to help the police department address their problems. Synthesizing your work to address a new target audience gives you the chance to practice reaching a broader audience.

- Course Learning Objective: Use the data science pipeline to identify patterns and gather results
- Course Learning Objective: Synthesize ideas to prepare findings for presentation

What am I going to do? You will begin by reading the one-page prompt for this case study. This document will provide a high level overview of what you need to know and what you will do for the project. Use this as an opportunity to begin brainstorming your approach to the problem. Next, read this rubric thoroughly to understand your final deliverables. After this you can begin constructing your analysis plan for addressing the problem and developing your final deliverables. These deliverables include:

- Github repository containing all materials for the project
- A slide deck synthesizing what you have learned

All of this will be submitted electronically via a link to a github repository built for the case study.

Tips for success:

- Be creative. Take time to brainstorm different approaches to the problem.
- Don't overthink it. A clear presentation of fundamentals is more valuable than an unclear presentation of cutting edge techniques.
- Talk to the professor and the TA. This is a creative assignment, and you are allowed to show ideas to people for comment.

How will I know I have Succeeded? You will meet expectations on the case study when you follow the criteria in the rubric below.

Spec Category	Spec Details
Formatting	● Repository – A github repo containing all materials o Submit a link to the repo o Everything is contained in the repo or linked to it if appropriate o Contents ▪ Data ▪ Code ▪ Presentation ▪ README.md o Use pdf format when possible o For code and data products use the appropriate format for whatever it is
Data	● Goal: This folder contains all of the data for this project ● If the data fits on GitHub, upload it there ● If the data does not fit on GitHub, upload a link to access it ● Include data provided by the case study and any additional data resources, if applicable
Code	● Goal: This folder contains all the code for your project, including any data preparation, exploratory analysis, and modeling ● Include all code files you produce ● The high-level documentation for this code is in the README ● Supplemental documentation should be supplied in the form of comments: make sure someone else could understand what your code is doing
Presentation	● Goal: This pdf should inform the CPD of your analysis and findings, as well as suggestions. ● Content should include: ○ Analysis plan: an overview of your process ○ Important results ○ Next steps & implications of your findings ○ Any other information you think would be helpful for the audience ● Use PDF format
README.md	● Goal: orient the reader to the content of the case study. ● This should include a high level overview of each item / folder in the repository. Include headings for the following sections: ○ Data ○ Code ○ Presentation ● Use Markdown (.md) format

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