CS-NFL Rubric

DS 4002 - Fall 2022 - Professor Alonzi
Due: December 14, noon
Submission format: Link to repo and hard copy

Individual Assignment

General Description: Submit to collab assignments a link to your case study repository and a hard copy to Professor Alonzi's office (400 Brandon Ave – Elson Building School of Data Science Faculty Offices).

Preparatory Assignments – Previous case study assignments CS1-1, CS1-2, CS1-3, as they give you an idea of how case studies are conducted in a data-driven, yet argumentative manner.

Why am I doing this? We read and produce solutions to case studies to practice thinking like a data scientist. In this example the focus is on problem solving and using an action-based mindset. We are focused on using data to translate the findings into meaningful change. This example follows this, in the sports world, which is one of the most powerful industries in the world. As non-sensical as issues may seem, they can have massive impacts on the business operations of these teams. While completing the case study, you are encouraged to then research the topic at hand and come up with your analysis and solutions being tasked to you.

- Course Learning Objective: synthesize relevant ideas in a domain and create a testable hypothesis
- Course Learning Objective: present results of a team project and field audience questions
- Course Learning Objective: translate processes from theory in the scientific method into functioning data science pipelines

What am I going to do? You will begin by reading the one-page prompt for this case study. In the prompt, you will be given the task at hand. Come up with any ideas you might have, and play around with the possibilities of all of them. Next, create a plan of action to produce the main deliverable of the case study. The deliverable here is a slide deck containing your analysis, findings, and potential suggestions going forward. The analysis is the methodology you took in order to undertake the case study. Your findings are the meaningful results that came out of your analysis. Your suggestions are, given the newfound insights you just developed, what do you recommend the team doing going forward. Furthermore, you will create a GitHub repository, containing all of the materials you used to complete the case study, such as coding files, as well as the images and figures you create.

Tips for success:
- Be creative. This could be unlike any task you have done before, so think about what could set this apart from other projects you have undertaken.
- Have fun. The project is meant to be more of a personal question answering task, with some applicability to the ever-so-popular sports business.

- 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 CS-NFL when you follow the criteria in the rubric below.

Spec Category	Spec Details
Formatting	- Repository – A cloud storage folder containing all materials - Submit a link to the repo - Slideshow – 8-10 slide pdf
Slideshow	- Goal: This pdf should inform the team owner of some background, your analysis and findings, as well as suggestions. - Background - Provide some of your initial research findings, as well as what the relevance of the project is to the team's goals. (2 slides max) - Analysis - Explain the analytical methods or techniques you took to go about the project (programming languages, functions, statistical measures, etc.) (3 slides max) - Findings - Highlight the meaningful insights you gained from you analysis, including any graphs or important measures. (3 slides max) - Suggestions - Based on your findings, what do you recommend the owner doing in order to potentially combat the issue, if it is possible. (2 slides max) - PDF format
GitHub Repository	- Goal: Explain the purpose, task, analysis, and overall product. - Contents - README.md on overview, research, links, etc. - Data - Code files - Figures/images (graphs, etc.) - Slideshow - For code, data, and figures use the appropriate format for whatever it is