Pokemon Design Challenge – Rubric

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DS 4002 – Spring 2024 - Instructors: Javier Rasero and Harsh Anand
Submission format: Upload link to GitHub repo to Canvas

Individual Assignment

General Description: Submit to Canvas a link to your case study repository containing your code, data, and pdf document.

Preparatory Assignments – Everything in the course, as well as the example provided.

Why am I doing this? This is your opportunity to synthesize the lessons learned during this course and demonstrate your abilities with a new method of analysis. See this case study as a fun new challenge to create an efficient solution for a client.

What am I going to do? Begin by reviewing the Prompt document outlining the premise of the case study. Next, you should read the accompanying reference materials to gain a deeper understanding of the context of the case study. You should then review the dataset and view the example code provided for inspiration. The example code uses pokemon from generations 1 - 6; however, your final example should use all 9 generations of pokemon. Next, you should create your own model to predict a pokemon's type based on its coloring, including any other additional predictors you desire. Finally, you will produce a document outlining your model, its performance, and how your model will help Pokemon Designers. To submit this assignment you will submit a link to your GitHub repository on Canvas.

Tips for success:
- Have fun! Be creative with your approach.
- Don't overthink it. Learn the basics about the topic but don't stress the details.
- Talk to the instructors and ask for help when you need it.

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

Formatting	● Repository – A GitHub repository containing all materials o Submit a link to the repo on Canvas o Everything is contained in the repo or linked to it if appropriate. o Contents ▪ ReadMe file ▪ Data folder ▪ Scripts folder ▪ Output folder ▪ Explanation Document ● 2 pages max

	● 12 font ● Times New Roman ● 1.15 spacing o Use pdf format when possible o For code and data products use any language that works for you
Code	● Goal: Creation of a model that will predict a Pokemon's primary type based on the colors used in the sprite's design. ● Create the model in any language you feel comfortable with ● Include sufficient comments throughout code ● Name variables intuitively
Explanation Document	● Goal: Explain in detail how your model works and why it will be helpful to the designers creating new pokemon. ● Include three clear sections o Dataset: ▪ Explanations of the dataset o Model: ▪ Explanation of how the model works o Performance: ▪ Explanation of model performance and its relation to the designers at Pokemon ● The goal is 2 pages max
Data	● Goal: Include the data used to create your model ● Find the best images of existing pokemon to train the best model ● Include any additional predictors you want to include in your model besides color