Data Journal Case Study Master League PvP

Intro!	**prologue**
	Hi! Welcome to my case study. I would not be able to complete this research without the help and support of our lovely Pokémon community of Pokémon trainers and Pokémon fans from all around the world. I'm grateful to you all for all the cheers and support. And sharing your knowledge and experience. I would not be here without you. Thank you! To be honest, almost 20 years ago, when I first played the video game, fire red, on a NINTENDO Game Boy. That was the size of a bento lunch box. That these Pokémons would become so real! I remember wrapping the rubber band around my biceps like the captain of my imaginative team. Without further ado let me lead you in this journey of mine: Master League PvP Case study!
	In this case study we are going to build a predictive model for Pokémon encounters in the PvP Master League.

Date: Feb 18 Part 1	**Course/topic: ASK: setting objectives**
Prompt:	In this case study we are going to make an encounter prediction model for Pokémon Go PvP encounters in the Master League. Like the title says itself. The question is: " Is it possible to predict the encounters in the PvP meta game of Pokémon Go?"
Journal Entry:	Asking questions to find data-driven solutions. "Can we make a prediction model for Pokémon encounters in the Pokémon Go PvP metagame."
Other thoughts or questions:	"Can we make prediction models for the other PvP competitions, Great Leagues, Ultra Leagues and PvP-Cups"

Date: Feb 18 Part 1	**Course/topic: CASE STUDY OBJECTIVES:** **Outlining the data analysis:**

	“Pokemon Go Master League PvP”
Prompt:	● What do you hope to take away from this capstone project? What is one important skill you think you’ll learn? ● Which skills do you most look forward to demonstrating? ● What are some issues you might encounter?
Journal Entry:	★ I want to be able to showcase all the skills, techniques, abilities and strategies that I learned in Coursera's Google Data Analytics course, ★ Especially in Data visualization. I’m looking forward to telling my audience a wonderful and inspiring story. Words might run short so I hope I can get the right visuals to get my points across.
Other thoughts or questions:	**Data analysis descriptive text** The data that I use is historical data up to a few weeks accurate as the PvP leagues rotate various times during the Pokémon Go season. A Question might acquire if I can make this data interactive with -> live data / live prediction conversion. In other words, can I foresee the in game markets/economics and to what accuracy? Can I manipulate the market by popularizing a certain Pokémon species or Pokémon type? What is the bias function in this calculation? Basically the bias function finds the average amount that the actual outcome is greater than the predicted outcome. Bias function equals zéro is the perfect prediction. Also which kind of Pokémons or Pokémon types will affect the in game economics the most. In other words, which Pokémons will generate the most players thus the most income. Depending on the context like the date, environment, the battling techniques (aesthetics) etc. the Top Pokémon types, the meta Pokémon or the counter-meta Pokémon or the meta-meta Pokémon. We won’t go in depth into this last analysis. For now let’s built our “PvP Master League encounter prediction model”

Date: Feb 18 Part 2	**Course/topic: PREPARE phase: DATA GATHERING AND DATA VALIDATION**

Prompt:	A. Data collection sourcing the data B. Data validation ensuring data integrity with license C. Data introduction outlining the data limitations D. Data collection for the layout of the data analysis presentations
Journal Entry:	1. Download Master league rankings .csv file on www.pvpoke.com 2. Downloaded and added images like zygade cube, zygarde cells, cells, pvp website logo, printscreens pvp rankings ML 3. Write Instructions on how-to download .csv file from pvpoke.com 4. Data validation under license https://opensource.org/license/mit/
Other thoughts or questions:	Make sure to have the right data analysis tools installed on your machine; spreadsheets, SQL, Tableau, R

Date: Feb 18 Part 2	**Course/topic: PROCESS phase: Cleaning data, data manipulation and transforming data**
Prompt:	A. Renaming data B. Uploading data in a data analysis environment C. Reframing data: set data limitations D. Data transformation for data analysis E. Journal your data
Journal Entry:	1. Clean Master League dataset from pvpoke.com ".csv cp10000_all_overall_rankings" created on Sunday, February 18, 2024 at 14:00 A. Data cleaning and data visualization with Google Spreadsheets B. Data cleaning with SQL. C. Write SQL queries to organize and create new datasets D. Create new data tables with relevant data with SQL and Google Sheets E. Download these datasets as csv for further analysis 2. Writing detailed logs of the cleaning process 3. Write data journals

Other thoughts or questions:	Write an instruction manual for executing SQL queries.

Date: FEB 19	**Course/topic: DATA ANALYSIS phase: analyzing data**
Prompt:	A. Data analysis with Google sheet and SQL B. Data visualization with Tableau C. Data analysis: verifying my data analysis with R
Journal Entry:	1. Use the cleaned datasets to create data visualizations 2. Data visualization with Google Spreadsheets 3. Data visualization with Tableau Datasets: cp10000_all_overall_rankings.csv, ml_top100_types_casestudy.csv, ml_top10_types_casestudy.csv, ml_top10_types_casestudy_V2.csv Analyze data with data visualizations to get key findings and meaningful insights
Other thoughts or questions:	Double check and proceed to sharing phase

Date: FEB 19	**Course/topic: DATA VISUALIZATION phase: visualizing data**

Prompt:	A. Visualize data with Google Sheets B. Visualize data with SQL C. Make Case Study Presentations D. Write descriptive text about the data
Journal Entry:	1. Data visualizations with Google sheets :table chart 2. Data visualization with Tableau A. Built: bar chart, horizontal bar chart, bubble charts B. Use aesthetics to better visualize data Add colors, resize, shapes C. Add labels D. Add legends 3. Making case study presentation ● Complementing presentation with data visualizations ● Write descriptive text ● Presentation layout aesthetics corrections ● Use stickers
Other thoughts or questions:	● What about the bias function? And how is it related to the predictive model? The bias function is the difference between this estimator's expected value and the true value of the parameter being estimated. Since we use historical data for this data analysis, the farther away from our data set in time, the less accurate our prediction model becomes. As new Pokémons are added regularly during the Pokémon season. Also new Pokémon trainers are able to attend the Master League PvP this way.

Date: FEB 20	**Course/topic: SHARE phase: sharing key findings and data insights with a Presentation**
Prompt:	A. Share key findings of the data analysis B. Highlight data points and data insights C. Create presentations to communicate effectively
Journal Entry:	1. Write key finding in descriptive text next to presentation 2. Explain meta Pokémon 3. Explain counter meta Pokémon 4. Explain counter-counter meta Pokémon

Other thoughts or questions:	Usefulness of the counter- counter meta Pokémon

Date: FEB 20	**Course/topic: ACT phase: conclusion and recommendations**
Prompt:	A. Share facts and recommendation with presentation B. Answering questions with data “Is it possible to predict the Pokémon encounters in the Pokémon Go PvP Leagues?” C. Q&A
Journal Entry:	1. Conclusion: “Is it possible to predict the Pokémon encounters in the Pokémon Go PvP Leagues?” “Yes! We can!” The PvP predictive model for the Pokémon Go PvP Master League predicts your first Pokémon type encounters. 2. General ideas and key insights 3. Recommendations on choosing the right Pokémon type a. How to use the predictive model to get the upperhand in Master League PvP b. Explanation on why you recommendation 4. Summary key insights, findings and conclusions 5. Q&A related Q&A’s
Other thoughts or questions:	Q&A session preparation.

Date: FEB 21	**Course/topic: Revising, evaluating and finalizing Case study**
Prompt:	1. Add appendix for presentation a. Vocabulary list b. Source list c. Query instructions d. Other instructions e. Additional info about PvP 2. Thank word 3. Revise whole case study a. Data sets b. Queries c. Journal d. Presentation
Journal Entry:	**ASSEMBLING CASE STUDY** 1. Create Appendix 2. Write vocabulary list 3. Add Source list 4. Add SQL query instruction manual A. Presentation B. Data journal C. Query instructions and google sheet functions
Other thoughts or questions:	Verifying data with R programming language Packages used: tidyverse, readr, ggplot2, dplyr

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