**Data Journal**

| **Date:** Jun 6 | **Course/topic:** Capstone Project | | |
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| **Prompt:** | Prepare for your capstone project. | | |
| **Journal Entry:** | As I begin preparing for my capstone project, I hope to gain real-world experience by applying everything I’ve learned so far—from data cleaning and analysis to visualization and communication. One important skill I expect to develop further is **turning raw data into actionable insights**, especially in a way that is clear and meaningful to stakeholders.  I’m especially looking forward to demonstrating my data processing, SQL, and Tableau skills. By extracting and organizing data using SQL, and visualizing it through Tableau, I aim to present clear, insightful narratives that explain not just what the data shows, but why it matters.  Some challenges I might face include **unclean or incomplete data**, **tight deadlines**, or needing to clarify project scope. I’ll need to stay organized and communicate clearly to stay on track. | | |
| **Other thoughts or questions:** |  | | |

| **Date:** Jun 6 | **Course/topic: Ask phase** | | |
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| **Prompt:** | **How does a bike-share navigate speedy success?** | | |
| **Journal Entry:** | I have completed the first task of the capstone project: defining a clear and focused business task. The finalized task statement is as follows:  *“The purpose of this analysis is to understand how casual riders and annual members use Cyclistic bikes differently, in order to help design marketing strategies that convert more casual riders into members.”*  This sets a strong foundation for the rest of the project and aligns directly with the company’s growth objectives. | | |
| **Other thoughts or questions:** | This feels like the most logical starting point to me. I could be wrong — but I believe that mistakes are part of learning, and failure is often the first step toward success. I’m committed to staying curious and improving with each phase of the project. | | |

| **Date:** 7 Jun | **Course/topic: Prepare Phase** | | |
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| **Prompt:** | Reflect on your experience preparing the data for analysis. What did you learn during this step, and how did you adjust your approach based on challenges you encountered? | | |
| **Journal Entry:** | In the Prepare Phase, I initially planned to work with the full 12-month dataset but quickly realized that file size limitations made it impractical to upload and process all the data in BigQuery. After reevaluating, I decided to focus on the Q1 2020 data, which is more manageable and still representative for analysis. I confirmed that the data meets the ROCCC standards and verified its structure after uploading it to BigQuery. Preparing the data required me to be flexible and realistic about technical constraints while keeping the end goal in mind. This step helped me better understand the importance of evaluating data quality and choosing the right tools before jumping into analysis. | | |
| **Other thoughts or questions:** | I am curious how missing station data might affect insights on ride destinations. | | |

| **Date:** 7 Jun | **Course/topic: Process Phase** | | |
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| **Prompt:** | What steps did you take to clean and prepare your data? | | |
| **Journal Entry:** | I used BigQuery to clean the Q1 2020 trip data from the Cyclistic bike-share program. I removed rows with null values in critical fields (ride\_id, timestamps, coordinates, station IDs, etc.), filtered out invalid durations (less than 1 minute or more than 24 hours), and ensured all categorical fields had valid values. I also added calculated fields such as ride duration, day of week, and hour of day to support later analysis. This prepared the dataset for detailed comparison between casual and member riders. | | |
| **Other thoughts or questions:** | BigQuery was really efficient for cleaning large datasets, and I feel more confident using SQL functions like TIMESTAMP\_DIFF, EXTRACT, and ROW\_NUMBER(). | | |

| **Date:** 8 Jun | **Course/topic: Analyze Phase** | | |
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| **Prompt:** | What trends or relationships did you find in the data? | | |
| **Journal Entry:** | I found that casual riders ride significantly longer (avg. ~30.68 mins) than members (~13.7 mins), prefer weekends and mid-afternoons, and start trips from tourist-heavy stations. Members use bikes more on weekdays during commuting hours, starting from work or residential areas. These insights clearly show two different user behaviors that can inform personalized marketing. | | |
| **Other thoughts or questions:** | Using grouping, ranking, and aggregation functions in SQL really helped me uncover these insights. I also practiced exporting my summaries for use in Tableau. | | |

| **Date:** 8 Jun | **Course/topic: Share Phase** | | |
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| **Prompt:** | How did you present your findings? | | |
| **Journal Entry:** | I created a Tableau Public dashboard with 4 key visualizations: average ride duration, rides by day of week, rides by hour of day, and top start stations. The dashboard is organized in a clean 2x2 layout with titles and subtitles explaining each insight. I used bold colors, tooltips, and consistent formatting to ensure the dashboard is accessible and executive-friendly. | | |
| **Other thoughts or questions:** | I had some trouble saving the title in Tableau, but fixed it by adding a text object manually. I'm proud of how visually clear and informative the dashboard turned out. | | |

| **Date:** 8 Jun | **Course/topic: Act Phase** | | |
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| **Prompt:** | What are your top recommendations based on your analysis? | | |
| **Journal Entry:** | Based on my findings, I recommend: (1) promoting weekend membership deals to casual riders, (2) placing targeted ads and signage at tourist-heavy start stations, and (3) emphasizing commuter benefits of memberships to users riding during weekday peaks. I also wrote a portfolio intro, uploaded my dashboard to Tableau Public, and prepared materials for sharing my work online. | | |
| **Other thoughts or questions:** | This phase helped me see how data insights can directly drive business actions. I'm also considering adding more case studies to my portfolio now that I have a structure. | | |