**An Overview of the Data Analysis Process**

**PHASE 1: ASK**

* What topic are you exploring?
* What is the problem you’re trying to solve?
  + What metrics will you use to measure your data to achieve your objective?
* Who are the stakeholders?
  + Who is your audience for this analysis? How does this affect your analysis process and presentation?
  + How will this data help your stakeholders make decisions?

**SUMMARY:**

* Identify problem
* Determine key stakeholders
* Explore and establish metrics and data

**PHASE 2: PREPARE**

* Where is your data located?
  + How is your data organized?
  + Are there any issues with bias or credibility in this data?
  + Are you addressing licensing, privacy, security, and accessibility?
  + How did you verify the data’s integrity?
  + Are there any problems with the data?

**SUMMARY:**

* Collect data and store it appropriately
* Determine the credibility of the data
* Identify how it’s organized
* Sort and filter the data

**PHASE 3: PROCESS**

* What tools are you choosing and why?
* Have you ensured your data’s integrity?
* What steps have you taken to ensure that your data is clean?
  + How can you verify that your data is clean and ready to analyze?
  + Have you documented your cleaning process so you can review and share?

**SUMMARY:**

* Choose your tools
* Check data for errors
* Transform the data into the right type
* Document the cleaning process

**PHASE 4: ANALYZE**

* How should you organize your data to perform analysis on it?
  + Has your data been properly formatted?
* What surprises did you discover?
  + What trends or relationships have you found in the data?
  + How do these insights answer your questions or solve the problem?

**SUMMARY:**

* Aggregate your data so it’s useful and accessible
* Organize and format your data
* Perform calculations
* Identify trends and relationships

**PHASE 5: SHARE**

* What does your data tell?
  + How does your findings relate to the original question?
* Who is your audience?
  + What is the best way to communicate with them?
* Can data visualization help you share your findings?
  + Is your presentation accessible to your audience?

**SUMMARY:**

* Determine best way to share your findings
* Create effective data visualization
* Present your findings
* Ensure your work is accessible to your audience

**PHASE 6: ACT**

* What is your conclusion based on your analysis?
  + How can you apply your insights?
  + Are there any next steps you or your stakeholders can take based on your findings?
  + Is there any additional data you could use to expand your findings?
  + How can you feature your study in your portfolio?

**SUMMARY:**

* Share next steps with your stakeholders
* Determine if more data could give you new insights?
* Upload to your portfolio