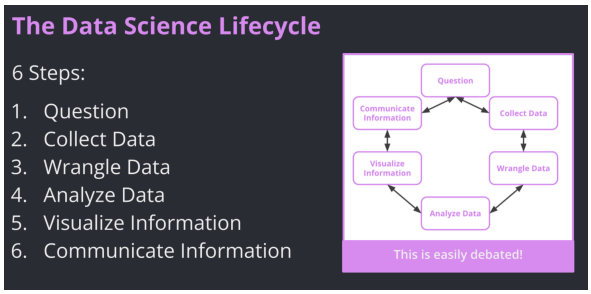
8/21/23 notes

What Is Data Science?

- Using advanced analytics to extract and interpret data for business
- Is used in almost all areas of business



9/5/23 notes

Python Fundamentals

- Datasets - collection of data
  - List - **ordered** and **changeable** with duplicates **allowed**
  - Dictionary - **ordered** and **changeable** with duplicates **not allowed**
  - Set - **unordered** and **unchangeable** with duplicates **not allowed**
  - Tuple - **unordered** and **unchangeable** with duplicates **allowed**
- Representing the data
  - Column-oriented - grouping my features, or column
    - Each column has values associated with the first row of that column
  - Row-oriented - grouping by observation, or row
    - Each row has the values associated with the first column of that row
- Indexing
  - List - **name[index]**
    - Index must be whole number, starts at 0 and counts up by 1
  - Dictionary **name[key]**
    - Keys can be any valad data type within used language, keys must be unique within dictionary
  - Set - **for *value* in *set***
  - Tuple - **name[index]**
- Iteration
  - While loop
    - Runs as long as condition is true
  - For loop
    - Runs through all values in a collection

- Useful functions
    - Dictionaries:
        - values()
        - items()
        - keys()
    - Lists:
        - len()
        - append()
        - sort()
    - Other:
        - range()
        - print()
        - split()
        - type()
        - int()
        - str()