Intermediate Data Manipulation in Python

- Understand the concepts and implementations from Intro to Data Manipulation in Python
- Be able to use advanced data slicing and subsetting techniques
    - loc vs. iloc
        - Understand the difference between these two functions
            - Label based location vs. Index based location
        - Be comfortable with subsetting data with these two functions
- Be able to use advanced data frame filtering and querying techniques
    - Boolean Queries
        - Be comfortable with filtering the data with simple conditionals and complex statements
            - Filtering for one value
            - Filtering for multiple values
            - Conditional Filtering
    - SQL-Pandas “query”
        - Be comfortable with filtering the data with the alternative query method for simple conditionals and complex statements
            - FIltering for one value
            - Filtering for multiple values
            - Conditional Filtering
- Be able to write efficient, “pythonic” code with advanced iteration techniques
- Be able to use List Comprehensions as an alternative to for loops
    - Use List Comprehensions to iterate over a data frame column and change values
        - Encoding column values with: if, else-if, if-else-if structures within a list comprehension

- Be able to use Lambda Functions as an alternative to for loops
    - Use Lambda Functions to iterate over a data frame column and change values
        - Encoding column values with: if, else-if, if-else-if structures within a lambda function
- Understand why data imputation is needed and why missing values are a problem
- Know how to check for missing values
- Know how to replace missing values