



## **MGT 201: Winter 2024 (Homework #3)**

Due on Tuesday, March 26<sup>th</sup>, 2024 (11:59pm)

Submit the following files:

1. Jupyter Notebook (ipynb) file
2. PDF and/or HTML file that shows your code and output

When you write your program, please add applicable comments with the hashtag (#) and/or with markdown cells so the grader can follow your work. You are expected to use the concepts that we've learned this semester.

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As an airline analyst, you are presented with a data file that captures flight travel data for a particular airline company for every customer over a one-month period. The data file consists of:

- Customer ID
- Gender
- Customer Type (Loyal or Disloyal)
- Age
- Type of Travel (Business or Personal)
- Class (Business, Economy or Economy Plus)
- Flight Distance (in miles)

You cannot manipulate the data file, so you must read the data file directly with pandas.

1. Sort the data by age from oldest to youngest
2. Calculate the average flight distance travelled for: (i) all customers; (ii) loyal customers only; (iii) disloyal customers only; (iv) business travellers only; (v) personal travellers only; (vi) business class only; (vii) economy class only, and (viii) economy plus only
3. Calculate the number of female and male customers
4. Calculate the number of loyal and disloyal customers
5. Calculate the number of business and personal customers
6. Calculate the number of business, economy, and economy plus customers
7. Find the customer with the most flight distance