**MSIS 5193**

**Assignment 1 – Due Sept13th (11:59pm – nighttime)**

**Submit on Canvas**

**Assignments are to be your own work. If you have questions, you can ask your TA.**

Please finish the following tasks using the flights.csv file in the “datasets” folder on canvas. Please submit your code and screenshots of the output of each question in the word file to submit to Canvas.

**Task 1.** import files and generate some summery

1. Write code to import the files flights.csv show the basic information about each file, including the number of columns, number of rows, data types of each column (5 points)
2. Use functions or libraries to show (10 points)
   1. How many carriers exist?
   2. What is the size of carrier in terms of the number of flights?

**Task 2.** Data aggregation, filtering, and sorting

1. Calculate the mean dep\_delay and arr\_delay for each flight (defined as carrier and flight), and sort the results in descending order (10 points)
2. Compare the average arr\_delay in January and February vs in June and July to see if more delays happen in winter months or summer months (10 points)