

# IE 300 Project I: Data Analysis for Airline Delays

Section: AD#

Group Members: First Last, First Last, First Last

## Project Description

This project is aimed to perform basis data analysis to assess and predict airline delays based on historical flight data.

### Part 1: Determine Fastest Airline

#### Exercise 1

(1) Read the dataset, ignoring any observations without a recorded departure or arrival time. Some times are recorded incorrectly resulting in incorrect flight time. For any flight time less than 230 minutes, delete the observations.

```
In [ ]: # Importing the necessary packages/modules  
import csv  
import numpy as np  
from matplotlib import pyplot as plt
```

```
In [ ]: # Start coding here
```

(2) Calculate the number of observations in your dataset.

```
In [ ]: # Put your comment here and code below
```

(3) Calculate the target flight time.

```
In [ ]: # Put your comment here and code below
```

(4) Calculate the typical time of this route.

```
In [ ]: # Put your comment here and code below
```

(5) Calculate the time added for each airline and determine which airline have the lowest time added.

In [ ]: *# Put your comment here and code below*

(6) Output the results of your calculations

In [ ]: *# Print your results in the following format*

```
# Number of Observations:  
# Target Time:  
# Typical Time:  
# Airline: AA |Time Added:  
# Airline: UA |Time Added:  
# Airline: VX |Time Added:  
# Airline: F9 |Time Added:  
# Airline: NK |Time Added:
```

## Exercise 2

create a bar graph for the time added of each airline.

In [ ]: *# Put your comment here and code below*

## Part 2: Modeling and Predicting Flight Delays

Follow the above format for the rest exercises in part 2.

In [ ]:

In [ ]:

## Conclusions

Draw any conclusions here if you may have.