

## PDAT 617 Assignment 5 Due on 07/13 11:59pm

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- 1.**Loading data.**(10 points). Begin by downloading the file StockMarket.csv and saving it in a folder where you can find it. We will load the data in jupyter notebook using the read.csv() command.
- 2.**Scatter Plot.**(20 points) Construct a scatter plot of the Stock Index Price( $Y$ ) for Interest Rate and Unemployment Rate, respectively. Based on your scatter plot, do you think a linear relationship exists between Stock Index Price and Interest Rate, Unemployment Rate? Why?
- 3.**Liner Regression.**(40 points) Performing the multiple linear regression based on our data set. Interpret your result.
- 4.**Residual Plot.**(10 points) Draw a residual plot and interpret your result.
- 5.**Prediction.**(20 points) Please predict the Stock Index Price when the Interest Rate = 2.75 and Unemployment Rate = 5.3