**Assignment 1**

**FTA 4005**

**Individual Submission**

1. Perform the following tasks (60 points)
   1. Download daily prices data of Microsoft stock from Yahoo for the period January 2, 2001 till December 31, 2016. (5 points)
   2. See the size of the downloaded data ( 5points)
   3. Observe the first 6 rows of the data (5 points)
   4. Plot the daily prices and volume (5 points)
   5. Compute log returns (10 points)
   6. Construct time plot of daily log returns of Microsoft stock for the sample data (10 points)
   7. Compute the sample mean, standard deviation, minimum, and maximum of the log return series (10 points).
   8. Interpret your findings (10 points)
2. Perform the following tasks (40 points)
   1. Time plot of daily price and volume of a stock of your choice from January 2, 2001 till December 30, 2016 (you can choose any other sample period you like with 15 years of data). (10 points)
   2. Compute log returns. Construct time plot of daily log returns of the stock for the sample data (10 points)
   3. Compute the sample mean, standard deviation, minimum, and maximum of the log return series. (10 points)
   4. Interpret your findings (10 points)

**Deliverables:**

1. Submit R code for each sections of the assignment. Include both parts in one R program file. R code should provide comments on sections of the assignment the code is intended for. Submit electronically in iCollege in the Assignment tab. Note that this is an individual submission.
2. Note that your R code should provide description of what the program is doing. You should also include summary of your analysis at the end of each part (**do not submit** any separate document for the summary). Your grade will be based not only on the correctness of the program but also how efficiently the program executes the tasks and how clearly the tasks are presented in the program.