DS 203 : Programming for Data Science

Tutorial and Assignment Sheet – 3

1. Download, read, and display the data at the following URLs in in python using Google CoLab and pandas, and print the type of each variable.
    a. http://download.macrotrends.net/assets/php/stock_data_export.php?t=GOOG . You can replace GOOG with any other stock symbol, such as MSFT.
    b. https://archive.ics.uci.edu/ml/datasets/Amphibians
    c. https://data.gov.in/resources/quarterly-range-wise-performance-public-facilities-operation-minor-no-or-local-937

2. Write down reasonable exploratory, descriptive, predictive, and prescriptive data analysis to be done in case of each of the following hypothetical scenarios. Feel free to indicate if some of these categories of analysis do not apply to a particular scenario. Also feel free to search the net for any actual data sources that might useful for the problem at hand. Some loosely related links are provided:
    a. As an analyst for a stock market newsletter, you want to recommend bell-weather stocks for different sectors. See: https://www.investopedia.com/terms/b/bellwether-stock.asp
    b. As an intern at the Ministry of Environment, you are under pressure to approve one of the two roads that have been proposed, and you want to recommend the lesser of the two evils.See: https://www.nbmcw.com/tech-articles/roads-and-pavements/18263-clearances-required-under-environment-acts-for-highway-projects.html
    c. As an advisor to a state government, you want to close the gap between the neonatal mortality in the biggest city versus rest of the state, but you have limited resources to work on only a few hospitals. See: https://pubmed.ncbi.nlm.nih.gov/23734339/