

PES University, Bangalore
UE15CS322 - Data Analytics

Session: Aug – Dec 2017
Week 3 – Assignment 3

Date of Submission: Sep. 1, 2017

Max Marks: 20

*This is a **Group Assignment**. You will have to work in the same group as that of your project. One submission per team is sufficient.*

The solutions to this assignment are to be submitted online (we will send out the link shortly).

TOPIC: Data Visualization

This is an open-ended assignment – there is no right and wrong answer to the questions in this assignment. The purpose of this assignment is to get your occipital lobe do a little more work than it usually does! So, get going and create stunning visualizations!

Question – 1 (5 points)

Library [plotly](#) helps make brilliant visualizations that are highly interactive and appealing. Use this library to visualize the time-series dataset, [MER T12 06.csv](#). The dataset provides values of the amount of carbon dioxide emitted by various electric power sectors every month in million metric tonnes. Also, provide a dropdown menu to choose the electric sector the user wants to view in the visualization and a slider to control the range of months/years the user wants to view on the graph.

Question – 2 (5 points)

The snapshot of an article from a newspaper published in 2015 is attached alongside. A few names were blurred out when the snapshot was taken and these names have been labelled X and Y for convenience. You are asked to figure out names X and Y. To support your finding, you are also provided a dataset, [flight_delay.zip](#) that contains information about flight delays and cancellations of domestic flights operated by large air carriers in the USA in 2015.

What are X and Y? Support your answer with an appropriate visualization.



Question – 3 (5 points)

The *ease of doing business index* is an index created by the World Bank Group. Higher rankings (a low numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights. The dataset [business_rankings.csv](#) contains these rankings for four features associated with a business. Visualize this dataset (you may want to choose only top 20 of each category for the visualization).

Question – 4 (5 points)

On November 8, Prime Minister Narendra Modi announced demonetisation of ₹1000 and ₹500 notes with effect from midnight, making these notes invalid in a major assault on black money, fake currency and corruption. The announcement came as quite a shock to the political and common class with ATMs running dry and people panicking about what to do with their money. From ‘emergency’ to ‘game changer’, the anti-black money move went viral on Twitter and the dataset [demonetisation.csv](#) contains tweets made by the Twittersverse after the announcement. Provide a visualization of the tweets made.