**Social Media Analytics Lab**

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**Lab 12. Analysing real time datasets using networkx package**

In this lab we will look into the networkx package in detail and work on some real time examples

**Exercise 1: Modelling road network of Indian cities**

1. Import networkx and matplotlib libraries
2. Initialise an Undirected Null graph and make a list of cities and make these cities as nodes
3. Plot the cities
4. Create edges among the cities and create weights for the edges
5. Build a road network from the created edges

Please refer to the link for the exercise

<https://github.com/GokulKarthik/NPTEL-Social-Networks/blob/master/1.%20Introduction%20to%20Graph%20Theory%20and%20Python/mod1%20lec6.ipynb>

**Exercise 2: Analysing real time datasets using other network visualisation softwares**

Try to read the network datasets with different file extensions (datasets created out of different network software) using the networkx package

1. .txt files
2. Gml
3. Pajek net
4. GraphML
5. GEXF(By Gephi)

Please refer to the below link for the code and different datasets and prepare networks for each of the data file

<https://github.com/GokulKarthik/NPTEL-Social-Networks/blob/master/2.%20Analysing%20Online%20Social%20Networks%20Datasets/mod2%20lec21.ipynb>