**Social Media Analytics Lab**

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**Lab 13. Detecting communities in large networks using networkx package**

In this lab, you will explore community detection with the famous Karate club example and also work on a facebook dataset

**Exercise 1**

1. Import the networkx package and set up the environment to initialise communities
2. Initialise the karate club graph and find the number of communities
3. Define utility functions to assign the communities to nodes and edges
4. Visualise the communities by plotting the graph

**Exercise 2**

1. Import the facebook dataset and find the communities using the above steps
2. Plot the graph and visualise it
3. Render the graph using the defined utility functions
4. Apply Girvan Community Detection to find the communities from the 2 datasets – Karate Club and facebook
5. Find the cliques, k-plex and k-core from the graph

Reference

Please refer this post for community detection

<https://orbifold.net/default/community-detection-using-networkx/>