COSC 2671 Social Media and Network Analytics

Tute 9
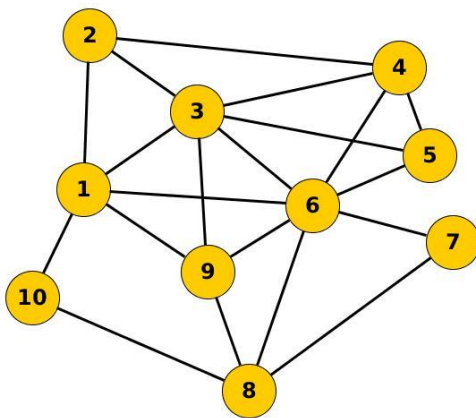
Community Detection

Learning outcomes:
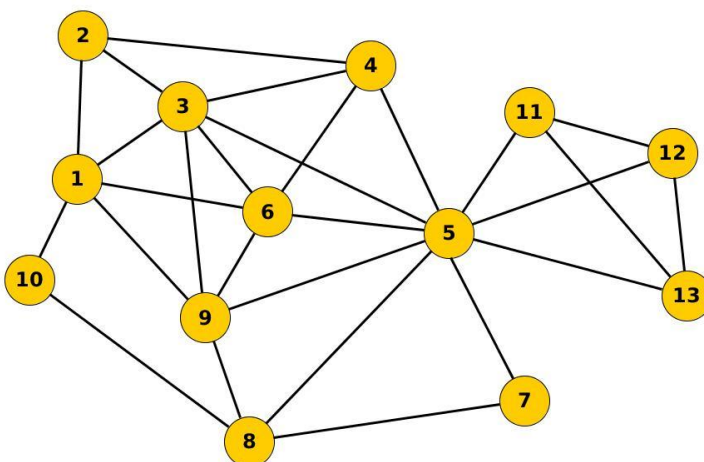- Revise community detection concepts

Tutorial Questions

1. Define what type of subgraphs are we are seeking when we are discussing community detection? Why do we seek such subgraphs?

2. Consider the following graph. Apply pruning to find cliques of size 4 or greater.

3. Find communities using CPM (Clique Percolation Method) to the following graph. Assume k = 4.

4. The following is the ground truth labels for the previous CPM algorithm. Compute the precision, recall and F-score to evaluate it.

Label X: 1,2,3,5,7,9,12,13
Label Y: 4,6,8,10,11