

Assignment

COMMUNITIES on SOCIAL NETWORKS

1. Introduction



In a social network, there are many users who may add friends to some of others. A *community* is a group in which every one *make friend* to each other.

Your task is to detect all of communities in the social network.

2. Requirement

You need to fulfill the following tasks.

1. Generate a random social network, represented as a graph. The size of users in graph should be sufficiently large (thousands up to millions users).
2. Improve the generation algorithm to generate a social network that has at least N communities and each community having at least M members.
3. Develop an algorithm to find all of communities.
4. Develop a *heuristics algorithm* to find as many communities as possible
5. Do comparison between two algorithms and make a report.