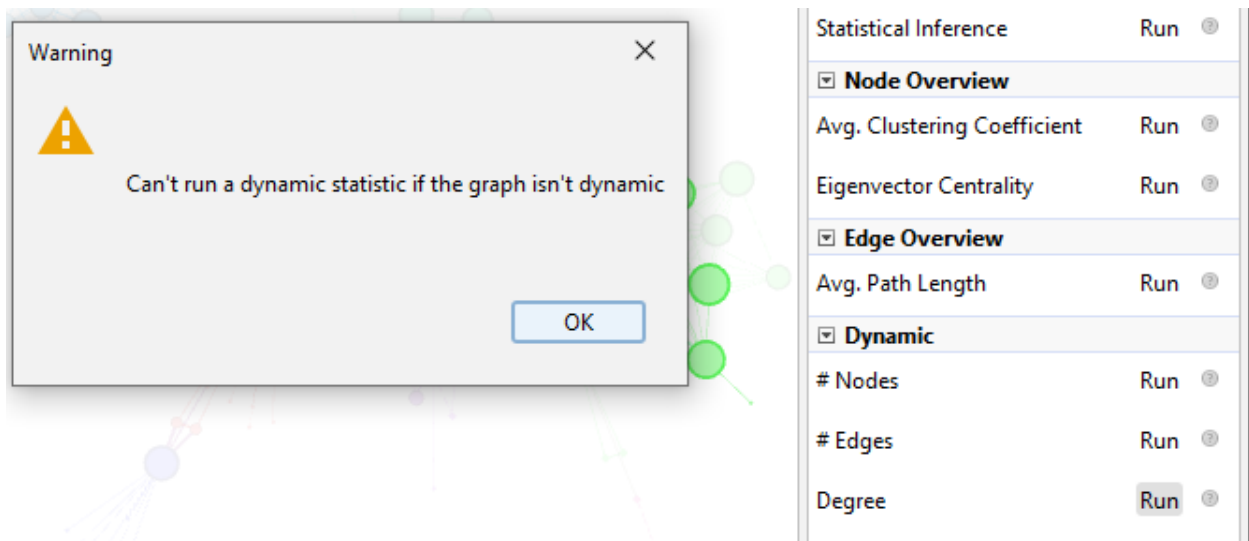


## Lab 05.02

### Phần 1:

#### Degree Centrality



A warning dialog box is displayed over a network graph. The dialog box has a title bar with 'Warning' and a close button. It contains a yellow warning triangle icon and the text: 'Can't run a dynamic statistic if the graph isn't dynamic'. An 'OK' button is at the bottom right. The background shows a network graph with green and blue nodes and edges. To the right, a software interface is visible with a table of statistical inference options.

Statistical Inference	Run
<input checked="" type="checkbox"/> <b>Node Overview</b>	
Avg. Clustering Coefficient	Run
Eigenvector Centrality	Run
<input checked="" type="checkbox"/> <b>Edge Overview</b>	
Avg. Path Length	Run
<input checked="" type="checkbox"/> <b>Dynamic</b>	
# Nodes	Run
# Edges	Run
Degree	Run

#### Graph Distance Report

---

##### Parameters:

Network Interpretation: undirected

##### Results:

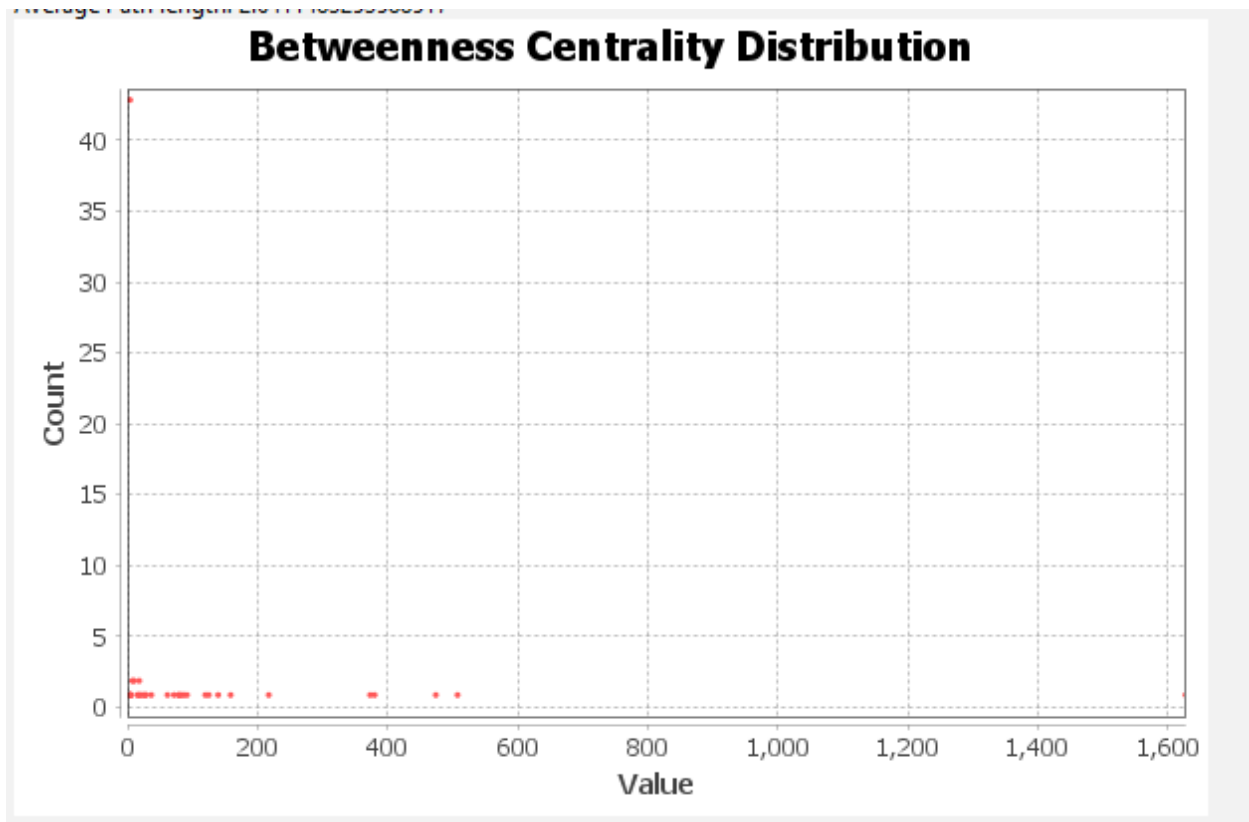
Diameter: 5

Radius: 3

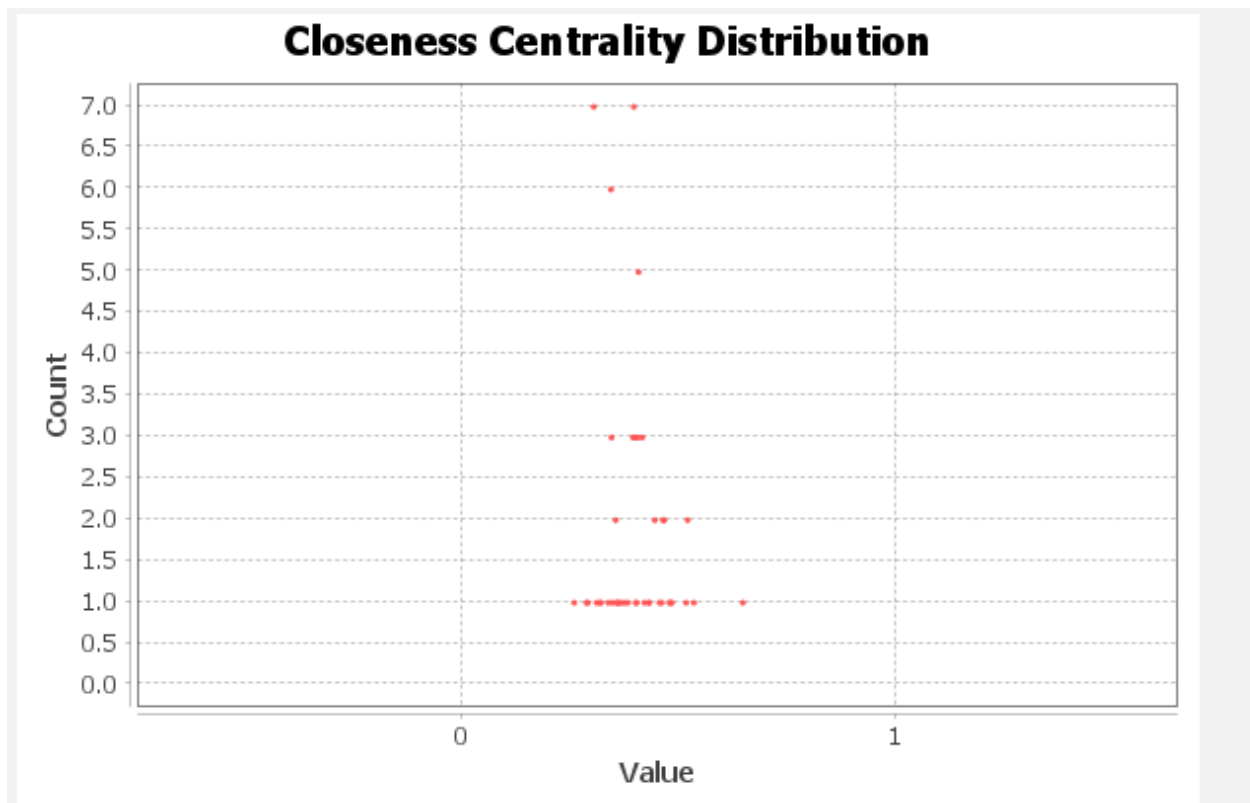
Average Path length: 2.6411483253588517

Betweenness Centrality:

Average Path Length: 11.10255557

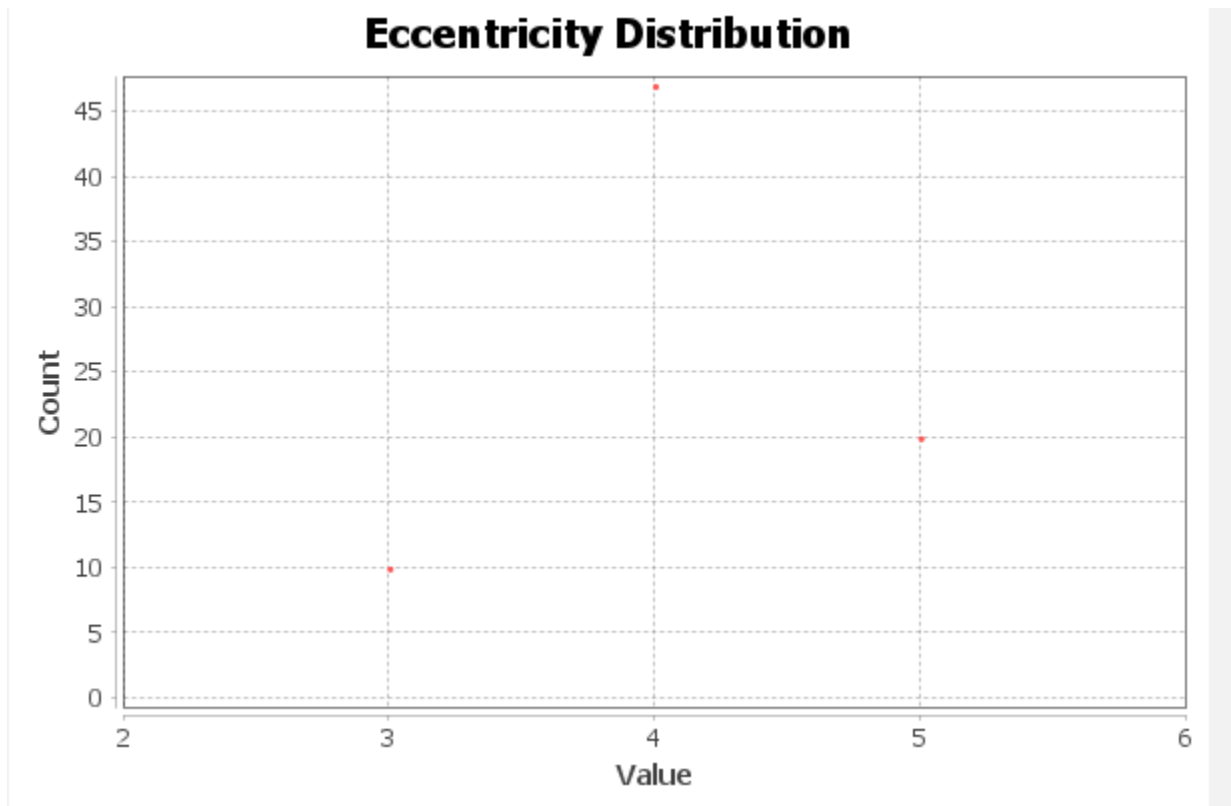


Closeness Centrality



Ba nốt có độ trung tâm cao nhất là:





#### Algorithm:

Ulrik Brandes, *A Faster Algorithm for Betweenness Centrality*, in Journal of Mathematical Sociology 25(2):163-177, (2001)

#### Phần 2:

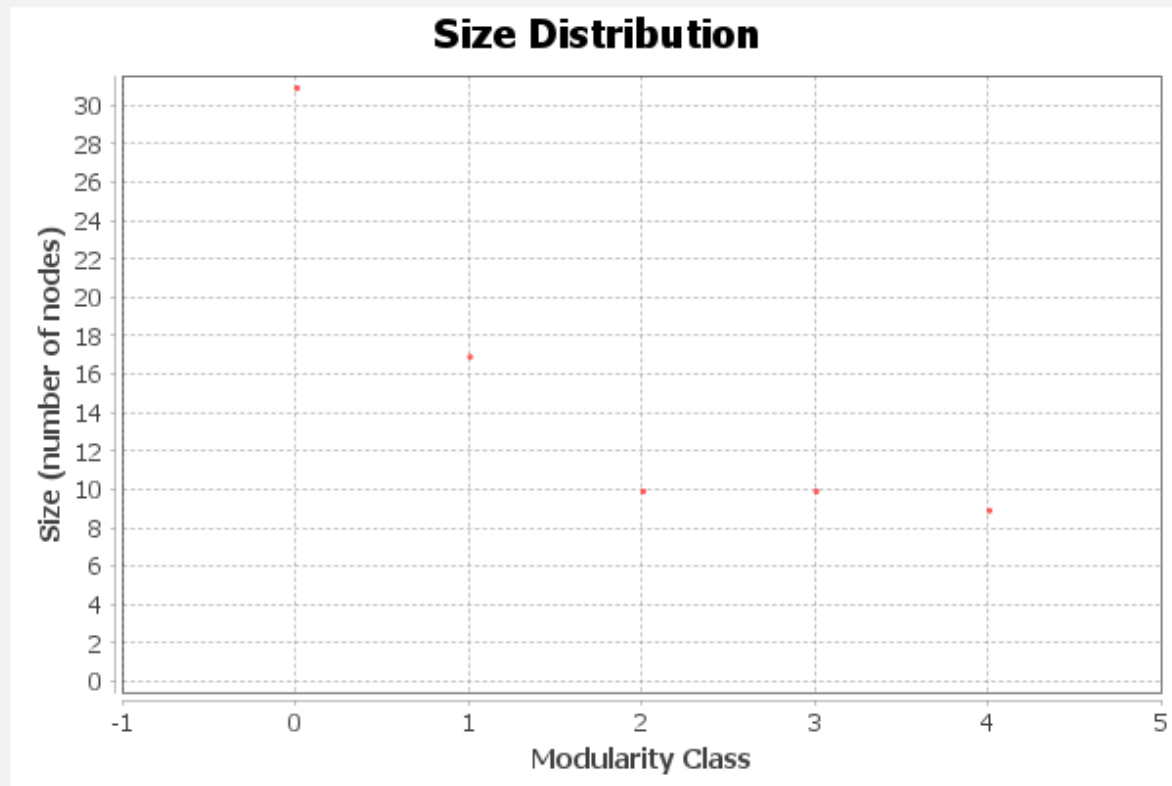
Louvain Clustering

### Results:

Modularity: 0.557

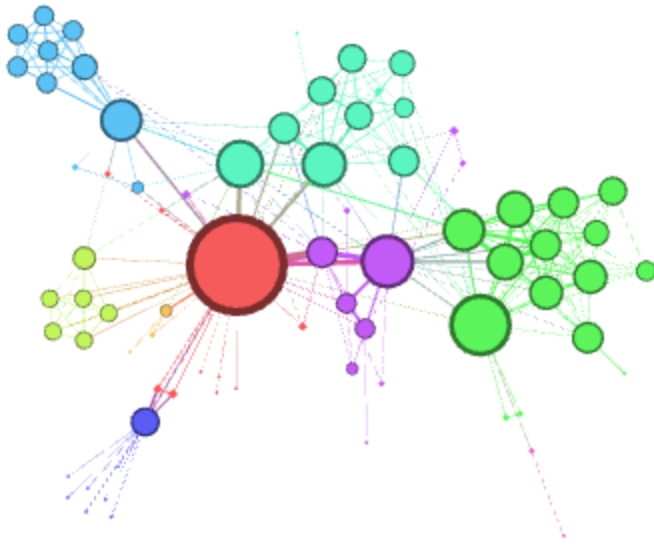
Modularity with resolution: 0.557

Number of Communities: 5



số lượng cộng đồng được phát hiện : 5

- Tính toán độ đo Modularity của kết quả phân cụm : 0.557
- Lưu ảnh kết quả phân cụm với các node được tô màu theo cộng đồng



### Phần 3: Trực Quan Hóa

