Degree Distribution

Answer the following questions:

1. Generate a few random graphs. You can do this using networkx's random graph generators. Do the random graphs you tested appear to be scale free? (Include degree distribution with your answer).

The random graph plots generated by using networkx are not scale free.

2. Do the Stanford graphs provided to you appear to be scale free?

The Youtube Graph Large, YouTube Graph Small, DBLP Graph Large are scale free, while the rest are not.

Centrality

Answer the following questions about the graph:

1. Rank the nodes from highest to lowest closeness centrality.

Ranking:- C, F, D, H, B, E, A, G, I, J

2. Suppose we had some centralized data that would sit on one machine but would be shared with all computers on the network. Which two machines would be the best candidates to hold this data based on other machines having few hops to access this data?

Node C and Node F, because their centrality is the highest

Articulation Points

Answer the following questions:

1. In this example, which members should have been targeted to best disrupt communication in the organization?

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