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Lab 4: Graph Analysis

Question #1: *Facebook Interactions*

1. The user (node) with the most interactions was user 83b9c07bb77a33d9740f3bc8c30cacc066d5192d. He/she had 28 interactions.

2. The average interaction differs based on how one defines "interactions." As a result, interactions defined by the number of edges generated a value of **4.10243902439.** On the contrary, interactions defined as two interactions for each edge generated a value of **2.0512195122.**

3. The largest subgroup in the graph contained 301 users. This was found using the strongly connected components of the graph.

Question #2: *Wake Forest (WWW) Network*

1. The web page (node) with the largest number of incoming links was http://college.wfu.edu

2. The web page (node) with the largest number of outgoing links was http://www. This makes sense given that nearly all webpages contain the prefixed "http://www" url.

3. The largest cycle in the graph had a size of 148 nodes.

Bonus Question:

1. Although I attempted to find the shortest path from node www.wfu.edu to csweb.cs.wfu.edu, there was no path. This discovery was found using my implementation of the Dijkstra's shortest path algorithm.