Assignment 2 - Network Connectivity ¶

In this assignment you will go through the process of importing and analyzing an internal email communication network between employees of a mid-sized manufacturing company. Each node represents an employee and each directed edge between two nodes represents an individual email. The left node represents the sender and the right node represents the recipient.

In [1]:
```
import networkx as nx

# This line must be commented out when submitting to the autograder
#!head email_network.txt
```

Question 1

Using networkx, load up the directed multigraph from `email_network.txt`. Make sure the node names are strings.

This function should return a directed multigraph networkx graph.

In [2]:
```
def answer_one():

    G = nx.read_edgelist('email_network.txt', delimiter='\t', data=[('time',

    return G

answer_one()
```

Out[2]:
```
<networkx.classes.multidigraph.MultiDiGraph at 0x7ff2211940b8>
```

Question 2

How many employees and emails are represented in the graph from Question 1?

This function should return a tuple (#employees, #emails).

In [3]:
```
def answer_two():

    G = answer_one()

    return len(G.nodes()), len(G.edges())

answer_two()
```

Out[3]:
```
(167, 82927)
```

Question 3

- Part 1. Assume that information in this company can only be exchanged through email.