

# Find the Most Influential Node in the Graph using Brande's Algorithm

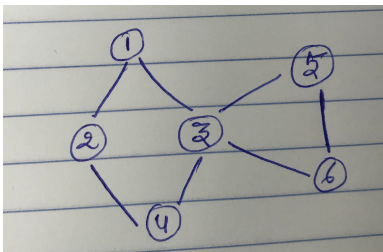
## 1. Progress

I understood Brande's Algorithm and tried to implement the algorithm given on the below link:

<http://algo.uni-konstanz.de/publications/b-fabc-01.pdf>

The code can be found on the GitHub link:

<https://github.com/ssgandham/Advanced-Data-Engineering-Term-Project>



I'm getting the following Betweenness centrality Values for the above graph:  
0 0 0 2 0 0 0

**To do:**

I've to figure out why I'm getting zero for rest of the vertices.

I still have to consider the weights of edges as well as see if other centralities such as Closeness, Graph or Stress can be computed.

```
58     if (dist[neigh] == dist[vertex] + 1) {
59         sigma[neigh] = sigma[neigh] + sigma[vertex];
60         if (!pred[neigh].contains(vertex))
61             pred[neigh].add(vertex);
62     }
63 }
64
65 }
66
67 while (!st.isEmpty()) {
68     int st_tmp = st.pop();
69     for (int vertex : pred[st_tmp]) {
70         double tmp_delta = delta[vertex] + ((sigma[vertex] / sigma[st_tmp]) * (1 + delta[st_tmp]));
71         delta[vertex] = tmp_delta;
72     }
73 }
```

Console Output:

```
<terminated> Graph [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_111.jdk/Contents/Home/bin/java (Nov 30, 2017, 4:52:21 PM)
0
1 :3
0
0
0
2
0
0
0
```