Untitled

May 23, 2021

In [24]:
```
import networkx as nx
G = nx.Graph()
G.add_edge('A','B')
G.add_edge('A','C')
G.add_edge('B','D')
G.add_edge('C','D')
G.add_edge('C','E')
G.add_edge('D','E')
G.add_edge('D','G')
G.add_edge('E','G')
G.add_edge('G','F')
G
```

Out[24]:
```
<networkx.classes.graph.Graph at 0x7f5e300f5860>
```

In [25]:
```
closeCent = nx.closeness_centrality(G)
closeCent['G']
```

Out[25]:
```
0.6
```

In [26]:
```
btwnCent = nx.betweenness_centrality(G,normalized=True,endpoints=False)
btwnCent['G']
```

Out[26]:
```
0.3333333333333333
```

In [27]:
```
edge_btwnCent = nx.edge_betweenness_centrality(G,normalized=False)
edge_btwnCent[('G','F')]
```

Out[27]:
```
6.0
```

In [28]:
```
B = nx.DiGraph()
B.add_edge('A','B')
B.add_edge('A','B')
B.add_edge('A','C')
B.add_edge('C','D')
B.add_edge('D','C')
B
```

Out[28]:
```
<networkx.classes.digraph.DiGraph at 0x7f5e300df5f8>
```

```
In [29]: pagerank_09 = nx.pagerank(G,alpha=0.8)
         pagerank_09['D']

Out[29]: 0.20501451529650055

In [42]: C = nx.DiGraph()
         C.add_edge('A','B')
         C.add_edge('A','C')
         C.add_edge('B','C')
         C.add_edge('C','A')
         C.add_edge('D','C')
         C

Out[42]: <networkx.classes.digraph.DiGraph at 0x7f5e300f2588>

In [44]: h,a = nx.hits(C, max_iter=100, normalized=True)
         h['C'],a['C']

Out[44]: (1.0065322483445805e-09, 0.7071067794684264)

In [ ]:
```