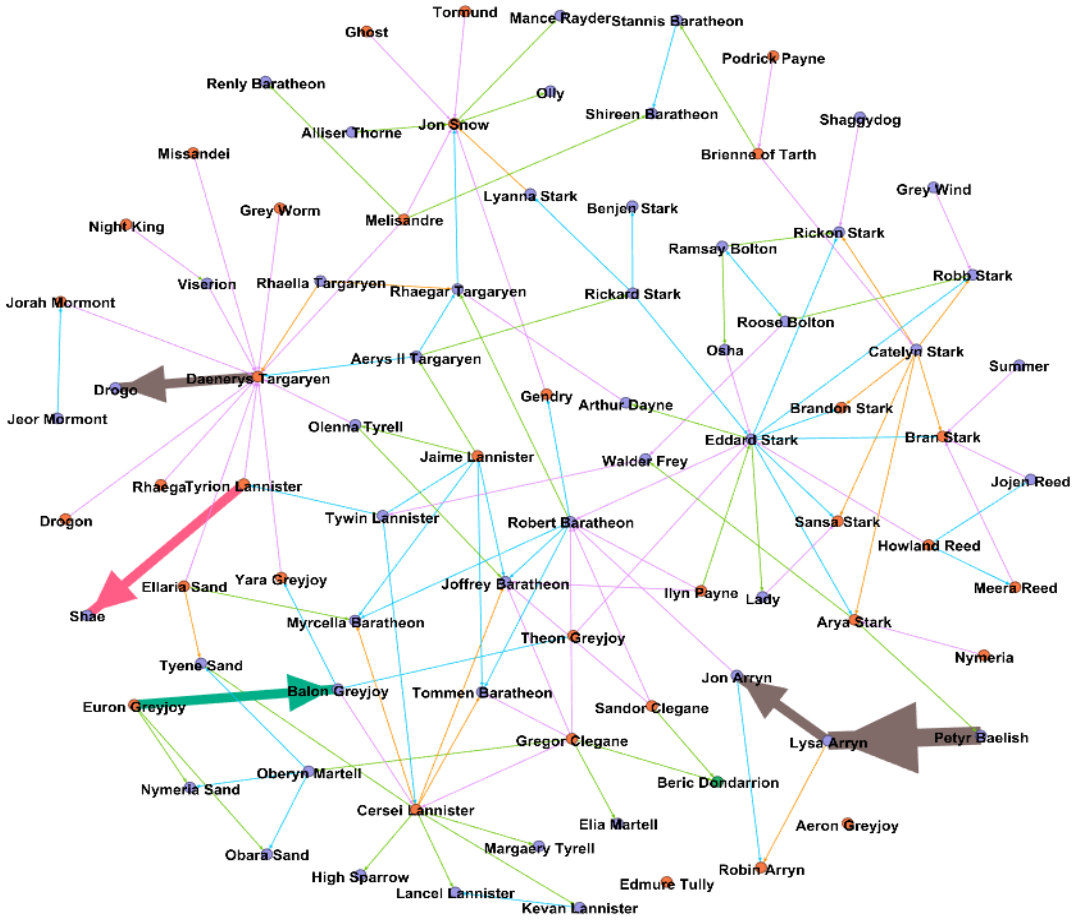
COMP5048
Assignment1

Student name: Wentao Wu

Student ID: 480416845



Node color:

Deceased	(58.33%)
Alive	(40.48%)
Uncertain	(1.19%)

Edge color:

allegiance	(32.06%)
killed	(27.48%)
father	(25.95%)
mother	(10.69%)
spouse	(2.29%)
lover	(0.76%)
sibling	(0.76%)

Description:

I used Gephi to visualize the A1 data. And the layout is Frucheterman Reingold. The area is 5500, gravity is 6.0 and speed is 1.0. The processes of creating the picture are as follows:

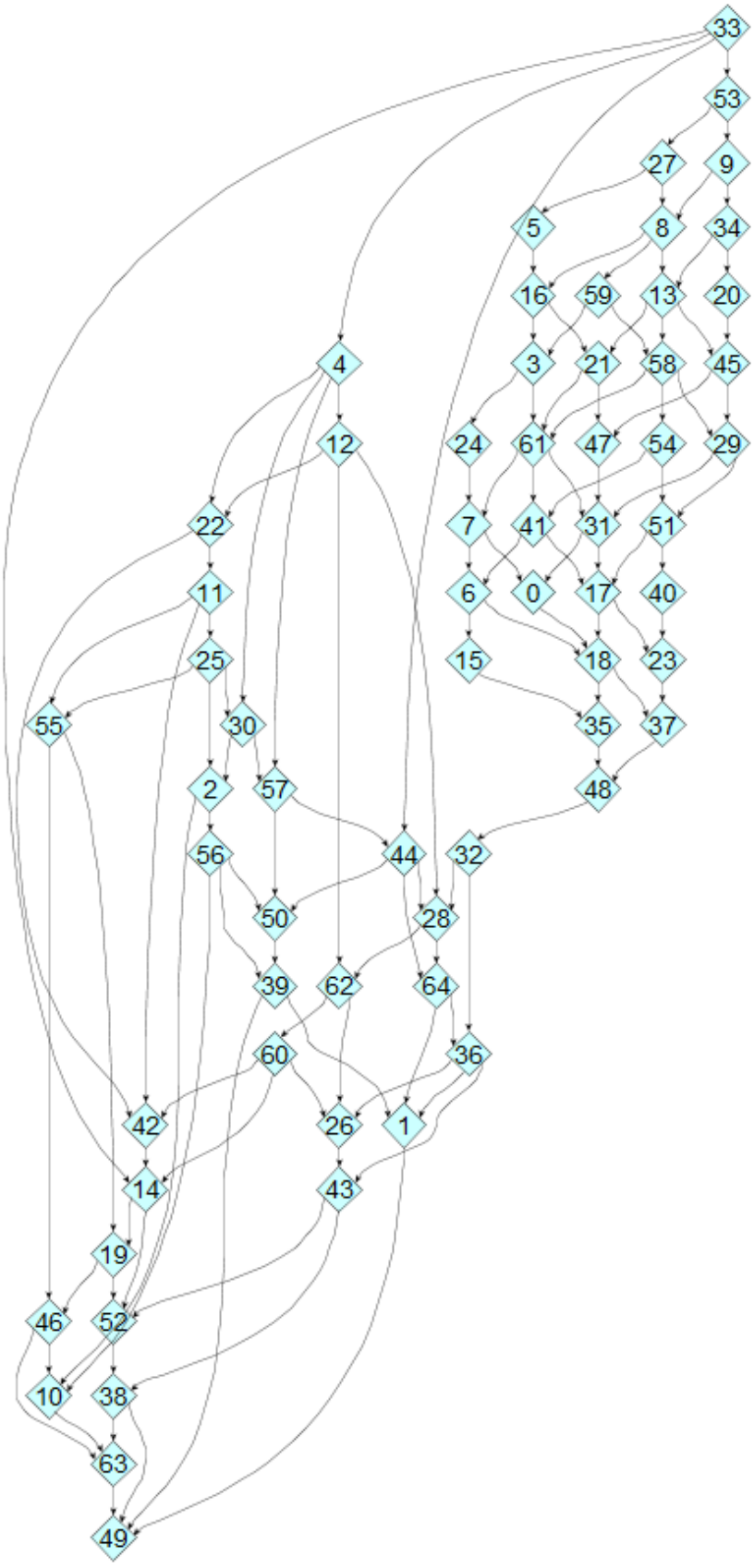
1. Download the dataset on the website and save it as .gml file format.
2. Open the file with Gephi tool.
3. Choose label menu, then click the configure icon. In the Nodes list, select name attribute to display as labels. You can also select the relationships on edges, but this tool cannot display well.
4. On the left, select Fruchterman Reingold for the layout of the data. Modify the parameters of area, gravity and speed to improve the visual effect of the data.
5. On the top left, the appearance menu provides some functions that the nodes could have different colors depend on its status attribute. And the edges color could change depend on its relationship between the connected nodes. The meaning of these colors is given above.
6. On the bottom, change the node font size and edge size to improve display of entire image.

Strength of this picture:

1. The picture is clearly shown every role name in Game of Thrones.
2. It shows the status of role by color.
3. It can show the relationship of every connected node.

Weakness of this picture:

1. The layout could be more accurate and beautiful. This picture is a bit too compact.
2. The relations between the nodes cannot display well so we need identify each one by color. If the number of nodes and edges is too large, this software will not work.


33
53
27
9
5
8
34
16
59
13
20
4
3
21
58
45
12
24
61
47
54
29
22
7
41
31
51
11
6
0
17
40
25
15
18
23
55
30
35
37
2
57
48
56
44
32
50
28
39
62
64
60
36
42
26
1
14
43
19
46
52
10
38
63
49

Description:

I used yEd tool to refactor the picture. The layout of the picture is BPMN. The processes of crating this picture are as follows:

1. Save the website data as .gml file. Open it via yEd.

2. It has 65 nodes and 125 edges. So I select BPMN layout to show their relations. Click the layout list, choose the BPMN. Then pick the complete layout for layout mode. The orientation is top to bottom. Keep the rest as default values.

The picture is shown the connections more clearly than before.

Strength:

1. The yEd tool has a lot of layout algorithms so it can display many different layouts for the data.

2. This picture is like a tree structure so that we can see the connections clearly. And know which nodes have the most connections.

Weakness:

Although the picture has a clearer view, there are still some intersecting edges that can cause confusion. I almost try all the layout, but no one could be better compare to the BPMN.