I used a python code, spider.py, which consisted of BeautifulSoup to run a page crawl on betterhelp.com, an online mental health service portal.

```
C:\Users\ilmaa\Desktop\code3\pagerank>spider.py
Restarting existing crawl.  Remove spider.sqlite to start a fresh crawl.
['http://betterhelp.com']
How many pages:2000
651 http://betterhelp.com/sarresa-thorson (37735) 31
1194 http://betterhelp.com/norra-macready (35439) 31
1216 http://betterhelp.com/ingrid-weibust (35460) 30
308 http://betterhelp.com/angelica-simpson (40947) 31
507 http://betterhelp.com/therapists/pa/rockledge (166813) 202
85 http://betterhelp.com/start/?counselor=23738 (331868) 29
679 http://betterhelp.com/annie-wilson (36876) 31
430 http://betterhelp.com/justin-nobles (76297) 48
1007 http://betterhelp.com/katarina-olea (58069) 31
662 http://betterhelp.com/start/?counselor=1013 (331871) 29
1112 http://betterhelp.com/start/?counselor=7462 (332381) 29
1076 http://betterhelp.com/therapists/tx/oak-point (165241) 202
753 http://betterhelp.com/therapists/tx/nevada (164894) 202
480 http://betterhelp.com/start/?counselor=18424 (332390) 29
1096 http://betterhelp.com/phyllis-siebern (34385) 30
682 http://betterhelp.com/start/?counselor=17253 (331884) 29
536 http://betterhelp.com/start/?counselor=15711 (332384) 29
649 http://betterhelp.com/sarah-davis (36912) 31
262 http://betterhelp.com/alice-hamlin (58898) 31
530 http://betterhelp.com/start/?counselor=14789 (331886) 29
1374 http://betterhelp.com/start/?counselor=11812 (332407) 29
1210 http://betterhelp.com/kaniecia-mixon (52392) 31
```

Later, I ran a pagerank script, sprank.py, to rank the crawled pages based on link quality. Next, I visualized the link ranks on the command prompt by running spdump.py.

Command Prompt

```
C:\Users\ilmaa\Desktop\code3\pagerank>spdump.py
(100, 8.018741857119473, 8.018741857119469, 19, 'http://betterhelp.com/accessibility')
(100, 8.085564705928803, 8.085564705928801, 18, 'http://betterhelp.com/privacy')
(100, 8.018741857119473, 8.018741857119469, 17, 'http://betterhelp.com/terms')
(100, 8.018741857119473, 8.018741857119469, 16, 'http://betterhelp.com/online-therapy')
(100, 8.301756275606042, 8.301756275606039, 15, 'http://betterhelp.com/therapists')
(100, 8.085564705928803, 8.085564705928801, 14, 'http://betterhelp.com/jobs')
(100, 8.018741857119473, 8.018741857119469, 13, 'http://betterhelp.com/gethelpnow')
(100, 8.232574973309326, 8.232574973309323, 9, 'http://betterhelp.com/login')
(100, 8.018741857119473, 8.018741857119469, 6, 'http://betterhelp.com/reviews')
(100, 8.085564705928803, 8.085564705928801, 3, 'http://betterhelp.com/about')
(100, 8.190572039772032, 8.19057203977203, 1, 'http://betterhelp.com')
(5, 0.5225035830624785, 0.5225035830624783, 38, 'http://betterhelp.com/therapists/tx/dallas')
(5, 0.5234285606566706, 0.5234285606566705, 34, 'http://betterhelp.com/therapists/az/phoenix')
(4, 0.02482665109834052, 0.024826651098340893, 100, 'http://betterhelp.com/therapists/az/litchfield-park')
(4, 0.02482665109834052, 0.024826651098340893, 95, 'http://betterhelp.com/therapists/az/tolleson')
(4, 0.02491285474798753, 0.024912854747987902, 94, 'http://betterhelp.com/therapists/az/youngtown')
(4, 0.8050562261314407, 0.80505622613144, 23, 'http://betterhelp.com/meagan-jones')
(4, 2.100146676846284, 2.100146676864626, 11, 'http://betterhelp.com/counselors')
(3, 0.0030171277376459926, 0.0030171277376646408, 531, 'http://betterhelp.com/vince-mikkola')
(3, 0.0031033313872930045, 0.0031033313872934195, 384, 'http://betterhelp.com/start/?counselor=10069')
(3, 0.0013430207733502182, 0.0013430207733506293, 348, 'http://betterhelp.com/start/?counselor=13290')
(3, 0.0013197856060242113, 0.0013197856060246222, 312, 'http://betterhelp.com/ellen-fields')
(3, 0.0025572070785031065, 0.0025572070785035202, 309, 'http://betterhelp.com/start/?counselor=14070')
(3, 0.001091025867372227, 0.001091025867372639, 253, 'http://betterhelp.com/therapists/tx/plano')
(3, 0.024992001447730398, 0.024992001447730776, 152, 'http://betterhelp.com/therapists/tx/farmers-branch')
(3, 0.024992001447730398, 0.024992001447730776, 149, 'http://betterhelp.com/therapists/tx/mesquite')
(3, 0.024836771625073695, 0.024836771625074073, 146, 'http://betterhelp.com/therapists/tx/university-park')
(3, 0.024992001447730398, 0.024992001447730776, 134, 'http://betterhelp.com/start/?counselor=26557')
(3, 0.024836771625073695, 0.024836771625074073, 130, 'http://betterhelp.com/start/?counselor=23447')
(3, 0.024836771625073695, 0.024836771625074073, 129, 'http://betterhelp.com/james-caldwell')
(3, 0.023274985404694304, 0.023274985404694682, 79, 'http://betterhelp.com/start/?counselor=20682')
(3, 0.5203380001804371, 0.520338000180437, 37, 'http://betterhelp.com/therapists/ca/san-diego')
(3, 0.6300440030593888, 0.6300440030593883, 28, 'http://betterhelp.com/stephanie-cole')
(3, 0.6300440030593888, 0.6300440030593883, 27, 'http://betterhelp.com/rima-tejwani')
(3, 1.1489037702847675, 1.1489037702847664, 12, 'http://betterhelp.com/online-counseling')
(2, 0.03706141194467034, 0.03706141194467069, 695, 'http://betterhelp.com/tierra-gregory')
(2, 0.03706141194467034, 0.03706141194467069, 687, 'http://betterhelp.com/hosi-rosta')
(2, 0.03706141194467034, 0.03706141194467069, 678, 'http://betterhelp.com/start/?counselor=15064')
(2, 0.0001011821920965898, 0.00010118219209700698, 637, 'http://betterhelp.com/andrea-bridges')
(2, 0.0014654620439997744, 0.00146546204400196, 537, 'http://betterhelp.com/kali-kenar')
(2, 0.03991228978656801, 0.039912289786568356, 474, 'http://betterhelp.com/start/?counselor=15319')
(2, 0.03991228978656801, 0.039912289786568356, 468, 'http://betterhelp.com/start/?counselor=7298')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 457, 'http://betterhelp.com/therapists/tx/parker')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 450, 'http://betterhelp.com/patricia-kuenstler')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 448, 'http://betterhelp.com/keyah-seedanee')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 443, 'http://betterhelp.com/start/?counselor=24784')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 442, 'http://betterhelp.com/veronica-cavazos')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 439, 'http://betterhelp.com/start/?counselor=23810')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 438, 'http://betterhelp.com/kimberly-bega')
(2, 5.742241407273358e-05, 5.742241407315523e-05, 431, 'http://betterhelp.com/start/?counselor=18843')
100 rows.
```
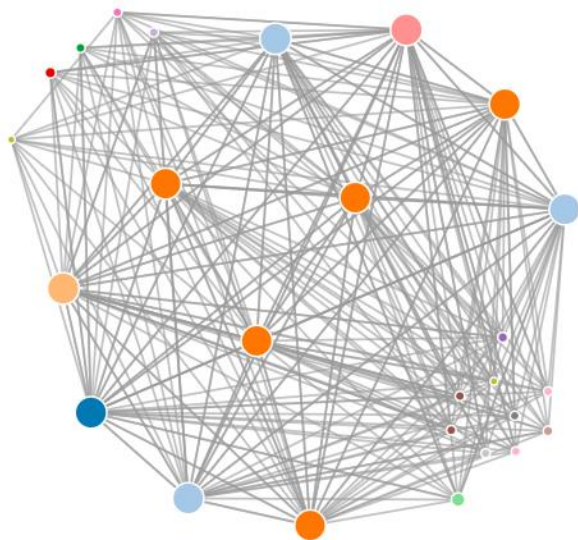
```
Command Prompt
C:\Users\ilmaa\Desktop\code3\pagerank>sprank.py
How many iterations:100
1 0.9512081062602212
2 0.11961854472968407
3 0.011957253355246394
4 0.0014748272494620812
5 0.00014928054488301626
6 1.3475675932161958e-05
7 2.2092098370669096e-06
8 2.7622547866276155e-07
9 3.3037127001870365e-08
10 5.61535378586056e-09
11 8.540414588316479e-10
12 1.4063377302479307e-10
13 2.4636988171394648e-11
14 4.174429308902529e-12
15 7.112334400546169e-13
16 1.2365302151118938e-13
17 2.283729555747335e-14
18 4.049763740144669e-15
19 3.8618176514157266e-15
20 3.2114776002696424e-15
21 1.6132664137008058e-15
22 2.8197870894399984e-15
23 2.306404629862915e-15
24 1.6960779238660143e-15
25 1.084872391540184e-15
26 1.5325541603459191e-15
27 1.2797445649172885e-15
28 1.8109749721929976e-15
29 1.5945271988768378e-15
30 2.408209346151655e-15
31 2.2480101022462384e-15
32 1.7717339389796261e-15
33 1.3284455712526217e-15
34 2.713817643439716e-15
35 1.699554250843082e-15
36 6.869829992585842e-16
37 1.4030756410022779e-15
38 3.861800998747984e-16
39 1.5870654251818435e-15
40 2.1337305091740677e-15
41 1.6149285168070497e-15
42 1.2640056551419433e-15
43 1.6731727892492129e-15
44 1.0596669695485243e-15
45 8.91349289655754e-16
46 6.875985698650893e-16
47 1.341251076759101e-15
48 1.2035180815840304e-15
49 1.458712777796528e-15
50 5.053329614837249e-16
```

At the very end, I visualized the top 25 links of betterhelp.com using force.html.

Starting url: http://betterhelp.com

If you don't see a chart above, check the JavaScript console. You may need to use a different browser.