

```
/Library/Java/JavaVirtualMachines/jdk-13.0.1.jdk/Contents/Home/bin/java "-javaagent:/Applications/IntelliJ
IDEA.app/Contents/lib/idea_rt.jar=58368:/Applications/IntelliJ IDEA.app/Contents/bin" -Dfile.encoding=UTF-8
-classpath "/Users/lanshunfang/Documents/NEU-Courses/Program Structure - Algorithms/alg-
hw/out/production/alg-hw" org.neu.alg.hw.hw9.GraphTest
```

Java version used for this program is 13.0.1

GraphTest.java starts

You can see dot file at /Users/lanshunfang/Downloads/graph-output/50.dot

File 50.txt

Graph Type = UNDIRECTED GRAPH

Num Vertices = 6

Num Edges = 8

Work done = 22

BFS order = 0 5 1 2 3 4

BFS path = 0 0 0 0 5 2

0

0->5

0->1

0->2

0->5->3

0->2->4

You can see dot file at /Users/lanshunfang/Downloads/graph-output/1.dot

File 1.txt

Graph Type = UNDIRECTED GRAPH

Num Vertices = 5

Num Edges = 4

Work done = 13

BFS order = 1 2 3 4 5

BFS path = 1 1 1 3 3

1

1->2

1->3

1->3->4

1->3->5

You can see dot file at /Users/lanshunfang/Downloads/graph-output/2.dot

File 2.txt

Graph Type = DIRECTED GRAPH

Num Vertices = 5
Num Edges = 5
Work done = 10
BFS order = 1 2 3 4 5
BFS path = 1 1 1 2 4

1
1->2
1->3
1->2->4
1->2->4->5

You can see dot file at /Users/lanshunfang/Downloads/graph-output/3.dot

File 3.txt

Graph Type = DIRECTED GRAPH
Num Vertices = 5
Num Edges = 6
Work done = 11
BFS order = 0 1 2 3 4
BFS path = 0 0 0 1 3

0
0->1
0->2
0->1->3
0->1->3->4

You can see dot file at /Users/lanshunfang/Downloads/graph-output/4.dot

File 4.txt

Graph Type = DIRECTED GRAPH
Num Vertices = 3
Num Edges = 3
Work done = 6
BFS order = A B C
BFS path = A A A

A
A->B
A->C

You can see dot file at /Users/lanshunfang/Downloads/graph-output/5.dot

File 5.txt

Graph Type = UNDIRECTED GRAPH

Num Vertices = 8

Num Edges = 10

Work done = 28

BFS order = 0 1 3 2 4 7 5 6

BFS path = 0 0 0 1 3 3 4 4

0

0->1

0->3

0->1->2

0->3->4

0->3->7

0->3->4->5

0->3->4->6

You can see dot file at /Users/lanshunfang/Downloads/graph-output/6.dot

File 6.txt

Graph Type = UNDIRECTED GRAPH

Num Vertices = 5

Num Edges = 4

Work done = 13

BFS order = 1 2 5 9 10

BFS path = 1 1 1 5 5

1

1->2

1->5

1->5->9

1->5->10

You can see dot file at /Users/lanshunfang/Downloads/graph-output/7.dot

File 7.txt

Graph Type = WEIGHTED_DIRECTED GRAPH

Num Vertices = 7

Num Edges = 12

Work done = 19

BFS order = 0 2 3 1 5 4 6

BFS path = 0 0 0 0 2 2 1

0

0->2

0->3

0->1

0->2->5

0->2->4

0->1->6

GraphTest.java Ends

goggle: grapviz online

Process finished with exit code 0