

## EE422C Project 3 (Word Ladder) Test Plan

*David Chun dc37875*

*Robin Dhakal rd27955*

*Spring 2017*

Test plan summary:

We used JUNIT tests to test the proper functioning of the methods. First we build the BFS and DFS then checked and debugged it through JUNIT individually. Then we added other modules. After building all the required modules, we also tested the whole program by running main. At last also we make sure that our program runs smoothly on both JUNIT test and main test. DFS was giving us many stack-overflow but after adding optimization code, most of those issues went away. There were still some stack-overflow problems but we left it uncovered because we thought it is the nature of recursive DFS and optimizing for all the overflows might be hard.

1.

- a) Test name: test DFS3()
- b) What feature does the test cover – 1-2 phrases or sentences.  
Checks if words “apple” and “robin” is returned as connected or not.
- c) Set up for the test – initialization. - None
- d) Expected output for a good module. - no stack-overflow
- e) The pass/fail criterion for the test. - no stack-overflow
- f) Any comments, if any. - test passed

2.

- a)Test name: test DFS4()
- b) What feature does the test cover – 1-2 phrases or sentences.  
Checks if words “press” and “adobe” is returned as connected or not.
- c) Set up for the test – initialization. - None
- d)Expected output for a good module. - no stack-overflow
- e)The pass/fail criterion for the test. - no stack-overflow
- f)Any comments, if any. - test passed

3.

- a)Test name: test DFS5()
- b) What feature does the test cover – 1-2 phrases or sentences.  
Checks if words “tesla” and “stock” is returned as connected or not.
- c) Set up for the test – initialization. - None
- d)Expected output for a good module. - no stack-overflow
- e)The pass/fail criterion for the test. - no stack-overflow
- f)Any comments, if any. - test passed

4.

a) Test name: test DFS6()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “shims” and “mercy” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - no stack-overflow

e) The pass/fail criterion for the test. - no stack-overflow

f) Any comments, if any. - test passed

5.

a) Test name: test DFS7()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “frump” and “mound” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - no stack-overflow

e) The pass/fail criterion for the test. - no stack-overflow

f) Any comments, if any. - test passed

6.

a) Test name: test DFS8()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “myrrh” and “bucko” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - no ladder found

e) The pass/fail criterion for the test. - no stack-overflow/ no ladder

f) Any comments, if any. - no path was

7.

a) Test name: test DFS9()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “wares” and “wants” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - no stack-overflow

e) The pass/fail criterion for the test. - no stack-overflow

f) Any comments, if any. - test passed and has same number of ladder as BFS

8.

a) Test name: test BFS9()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “frump” and “mound” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - shorter or equal ladder then DFS

e) The pass/fail criterion for the test. - shorter or equal ladder then DFS

f) Any comments, if any. - test passed with shorter ladder then DFS

9.

a) Test name: test BFS10()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “trump” and “apple” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - shorter or equal ladder then DFS

e) The pass/fail criterion for the test. - shorter or equal ladder then DFS

f) Any comments, if any. - test passed with shorter ladder then DFS

10.

a) Test name: test BFS11()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “soles” and “yucks” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - shorter or equal ladder then DFS

e) The pass/fail criterion for the test. - shorter or equal ladder then DFS

f) Any comments, if any. - test passed with equal ladder as DFS

11.

a) Test name: test BFS12()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “stags” and “grape” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - shorter or equal ladder then DFS

e) The pass/fail criterion for the test. - shorter or equal ladder then DFS

f) Any comments, if any. - test passed with less ladder then DFS

12.

a) Test name: test BFS13()

b) What feature does the test cover – 1-2 phrases or sentences.

Checks if words “hails” and “chugs” is returned as connected or not.

c) Set up for the test – initialization. - None

d) Expected output for a good module. - shorter or equal ladder then DFS

e) The pass/fail criterion for the test. - shorter or equal ladder then DFS

f) Any comments, if any. - test passed with less ladder then DFS