

EE422C Project 3 (Word Ladder) Test Plan

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Test plan summary

Our goal in our testing was to determine if the BFS and DFS generate a valid ladder between two words or prints that one does not exist. Prior to testing the DFS/BFS, we verified that the user input parse, dictionary generation, and ladder printing methods worked correctly. We started testing with a small dictionary with simple cases of 1, 2, and 3 rung word ladders. Once we verified that the ladder generators worked correctly we changed the dictionary to a longer dictionary to test longer cases. We did not test invalid inputs such as mismatched length of words, words not in dictionary, and equal start and end words because the documentation promised valid inputs.

Test 1.

- a) DFS Ladder
- b) Checks for correct printing of a long ladder
- c) Set up for the test – initialization.
None.
- d) Expected output for a good module.
Ladder between “drone” and “adorn”. Ladder checked for duplicate words.
- e) The pass/fail criterion for the test.
No stack overflow, ladder has no duplicates. Ladder is valid.
- f) Test is expected to run in 10 seconds or less.

Test 2.

- a) BFS Ladder
- b) Checks for correct printing of shortest ladder over xxx words
- c) Set up for the test – initialization.
None
- d) Expected output for a good module.
Ladder between “drone” and “adorn” with no duplicate words
- e) The pass/fail criterion for the test.
No stack overflow, no duplicates in ladder, ladder is valid
- f) Test expected to run very fast