**EE422C Project 3 (Word Ladder) Test Plan**

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Test plan summary What was your goal, methodology, and conclusion? 1 paragraph. Example: Did you use JUNIT? Did you test modules or the whole thing all at once? What areas did you feel you covered in your final test suite? What did you not cover?

**BFS Tests**

1.

a) Test name (LONG\_LADDER\_DFS)

b) What feature does the test cover – 1-2 phrases or sentences. Checks for correct printing of a long ladder of over XXX words.

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

d) Expected output for a good module. Ladder between XXX and YYY. Ladder checked for duplicate words.

e) The pass/fail criterion for the test. No stack overflow, ladder has no duplicates. Ladder correct, as checked by 'ladder checker'.

f) Any comments, if any. Test is expected to run in 2 seconds or less.

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**General Tests**

1. BFSTest

a) BFSTest

b) It covers general BFS cases using

c) Doesn’t run initialization , uses keyboard and parse.

d) Expected the ladder for the different values entered using BFS.

e) Ladder is found is our test criterion

f) General case

2. ParseTest

a) ParseTest

b) Verifies that we get correct input from the keyboard

c) Make a scanner connected to the keyboard.

d) Expected the two words inputed to be printed, they are also turned into uppercase.

e) System exits with /quit and words are printed when entered.

f) Any comments, if any. Test is expected to run in 2 seconds or less.

3. PrintLadder

a) PrintLadder

b) The test checks if the printer prints the ArrayList of a ladder

c) It needs to run a BFS beforeto obtain an ArrayList that is a ladder (or isn’t).

d) Expected output is the console to properly print the ladder and number of rungs.

e) The pass criterion for the Test is for the ladder to be outputted and for it to be complacent with the standards given for output

f) Checked for the corner case of no ladder, or when two words are right next to each other.

4. PermutationTest

a) PermutationTest

b) The test covers the helper module that checks whether a word is a permutation of the other (if it is adjacent.)

c) Starts the keyboard to get two words.

d) Expects to output true if the two words are adjacent, false if they are not

e) Pass criterion is that if two words are adjacent (ie. START SMART) it returns true. If not adjacent (SMART ALOOF) it returns false

f) Any comments, if any. Test is expected to run in 2 seconds or less.

5. InitializationTest

a) InitializationTest

b) It tests the initialization of the adjacentList.

c) Starts a timer to see how long it takes for the adjacentList to be created.

d) Expected output for good module is for the initialization to actually return.

e) If the initialization does not return, it fails.

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