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

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Test Plan Summary:

BFS Test cases

1. balls sacks
   1. Covers standard inputs with a valid word ladder
   2. Run main as normal
   3. Expected valid ladder output between balls and sacks
   4. To pass, test must produce a valid word ladder with no repeats
   5. No comments
2. fight fight
   1. Covers repeated inputs
   2. Run main as normal
   3. Expected invalid word ladder to return
   4. To pass, test must give the ‘no word ladder found’ result
   5. No comments
3. walls malls
   1. Covers inputs with one degree of separation
   2. Run main as normal
   3. Expected invalid word ladder to return
   4. To pass, test must give the ‘no word ladder found’ result
   5. Per piazza, this behavior is correct
4. aldol drawl
   1. Covers inputs with no valid word ladder
   2. Run main as normal
   3. Expected invalid word ladder to return
   4. To pass, test must give the ‘no word ladder found’ result
   5. No comments
5. /quit
   1. Covers user input /quit
   2. Run main as normal
   3. Expected to exit Main
   4. To pass, test must terminate the program without printing anything else
   5. No comments

DFS Test Cases

1. mango juice
   1. NO\_LADDER
   2. Checks to see if it would stack overflow. It did not
   3. No setup for initialization
   4. Expected no ladder between start and end word
   5. No stack overflow, Ladder is correct. There is no ladder
   6. No comments
2. mills kilim
   1. NEXT\_WORD
   2. Checks to see if a word which is next another word which has a ladder between them
   3. No setup for initialization
   4. Expected no ladder between start and end word
   5. No stack overflow, Ladder is correct. There is no ladder.
   6. Even if the word which differed by one letter was next to each other it did not have a ladder
3. BoBBy SanDy
   1. CAP\_LAD
   2. Checks to see if a ladder is formed between valid words
   3. No setup for initialization
   4. Expected valid ladder in lowercase
   5. Ladder returned was correct in lowercase
   6. No comments
4. Caddy caddy
   1. SAME\_WORD
   2. Checks to see if no ladder is returned if the words are the same
   3. No setup for initialization
   4. Expected no word ladder
   5. There was no word ladder. Test pass
   6. No comments
5. StOnE MonEy
   1. CHECK\_MULTIPLE
   2. Check the test case two times to see if the static variables don’t affect the output
   3. No setup for initialization
   4. Normal word ladder of 4000+ words expected in lowercase
   5. Word ladder correct and static variables didn’t mess anything up
   6. No Comments