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

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Test plan summary:

Our goal is to cover most of our code in the project. We used Junit to write unit tests for virtually every method we wrote. By making some of our private functions public, we were able to test them thoroughly before using them in our code. Not only did we test modules, we also write unit test to cover the top level functions. In addition, we also manually tested our code for integration. Overall, we have a unit test coverage of 95%.

1.

1. testCountDiff
2. Checks for correct number of different characters between two five-character string.
3. None
4. Different # of char in multiple strings.
5. All asserts passed

2.

1. testBFSNoDuplicates
2. Checks no duplicates produced in BFS
3. Create dictionary
4. When put the result in a HashSet, the size of the HashSet is the same as the ArrayList
5. All passed

3.

1. testDFS
2. Checks the ladder produced by DFS is correct
3. Create dictionary
4. The arrayList contains start and end word, and size greater than 2.
5. All passed