

# *Word Ladders Report*

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## *Results*

Our implementation produces the expected results on all input-output file pairs and passes all tests. The Adjacency list creation takes  $O(n^2)$ . This could be reduced by using a better comparison algorithm.

## *Implementation details*

We build the graph's edges by iterating over all words and then create an adjacency list by comparing all words with each other. This takes  $O(n^2)$  time.

After that we read the in file and iterate through the words adjacency lists to find the distance between words.

The total running time of our implementation (including graph construction and traversal) is 3459 mili seconds or  $O(n^2)$ .