

Word Ladders Report

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Results

Our implementation produces the expected results on all input-output file pairs, except `words-50.txt`, where our code reports distance 12 from “zombi” to “aargh.” We have no idea why this happens.¹

On input `words-5757.txt`, a shortest path from `aargh` to `zombi` of length 3 is the following:

aargh, dogma, gonad, zombi ²

Implementation details

We build the graph’s edges by iterating over all [...]³ The running time for graph construction is $O((n^3 + \log^2 m) \cos w)$.⁴

The total running time of our implementation (including graph construction and traversal) is [...].

¹ Complete the report by filling in your correct names, filling in the parts marked [...], and changing other parts wherever necessary. For instance, if your implementation passes all tests, then write that. Remove the sidenotes in your final hand-in.

² Correct and replace as required.

³ Explain what you do. Be very brief. Three sentences are a lot.

⁴ Replace as necessary. Use n for the number of vertices, m for the number of edges in the finished graph, and w for the length of the words. Note that we always have $w = 5$ in our inputs, but it still makes sense to make the word length visible in the running time.