

Directory Structure:-

- 1) Indexer.py
- 2) Search.py
- 3) FieldQueriesSearch.py
- 4) SearchPhase2.py
- 5) Readme.md

Optimizations used:-

- 1) Binary Search to find postinglist from index files corresponding to given word.

Improvements in time and space complexity:-

- 1) The time complexity reduced to $\log n$ instead of n where n is number of index files.

Index Creation Time and Size:-

- 1) Time taken:- 600-650seconds
- 2) Size:- 400.3MB

Format for final Index is as follows:-

Three things have been stored in the index:-

- a) DocID to title map
Format: key: DocID, value: Title of Wikipedia page.
- b) Word Posting List
Format: key: Word, value: docid: t1i0c0b1r0 : tfidf of word in doc.
- c) DocID to words List
Format: key: Docid, value: words : tfidf