

## AUTHORS:

Aliya Valieva

Haoyuan Bai

## LANGUAGE:

Python 3.9

## DESCRIPTION:

The project consists of two parts, Indexer.py and SearchEngine.py.

The Indexer.py includes lemmatizing words, calculating the TF-IDF score and handling HTML parsers. SearchEngine.py is the main module to run, it connects to the querying index database and retrieve 20 URLs for each query

Collecting statistics through tools including sql and sqlite.

### Libraries:

`pip install spacy, parser, bs4, lemmatizer, Flask, sqlite3`

`python -m spacy download en_core_web_sm`

Please download DB Browser for SQLite to have a better user friendly experience for viewing DOCINDEX.db

Running on: `http://127.0.0.1:5000/`

(sample interface with 20 fetched URLs)

| Search query |   |          |  |
|--------------|---|----------|--|
| Enter query  |   |          |  |
| Search       |   |          |  |
| #            | Title   | Document | URL  |
| 1            | T. takagi   | 10/485   | <a href="http://fano.ics.uci.edu/cites/Author/T-Takagi.html">fano.ics.uci.edu/cites/Author/T-Takagi.html</a>   |
| 2            | Universal academy press   | 1/320    | <a href="http://fano.ics.uci.edu/cites/Organization/Universal-Academy-Press.html">fano.ics.uci.edu/cites/Organization/Universal-Academy-Press.html</a>   |
| 3            | Masaryk univ., faculty of informatics                                   | 48/18    | <a href="http://fano.ics.uci.edu/cites/Organization/Masaryk-Univ-Faculty-of-Informatics.html">fano.ics.uci.edu/cites/Organization/Masaryk-Univ-Faculty-of-Informatics.html</a>   |
| 4            | Proc. 10th genome informatics worksh.                                   | 67/115   | <a href="http://fano.ics.uci.edu/cites/Location/Proc-10th-Genome-Informatics-Worksh.html">fano.ics.uci.edu/cites/Location/Proc-10th-Genome-Informatics-Worksh.html</a>   |
| 5            | Aristotle univ. of thessaloniki, dept. of informatics                   | 50/498   | <a href="http://fano.ics.uci.edu/cites/Organization/Aristotle-Univ-of-Thessaloniki-Dept-of-Informatics.html">fano.ics.uci.edu/cites/Organization/Aristotle-Univ-of-Thessaloniki-Dept-of-Informatics.html</a>                         |
| 6            | Univ. of athens, dept. of informatics and telecommunications            | 41/103   | <a href="http://fano.ics.uci.edu/cites/Organization/Univ-of-Athens-Dept-of-Informatics-and-Telecommunications.html">fano.ics.uci.edu/cites/Organization/Univ-of-Athens-Dept-of-Informatics-and-Telecommunications.html</a>           |
| 7            | Warsaw univ., inst. of informatics                                      | 71/3     | <a href="http://fano.ics.uci.edu/cites/Organization/Warsaw-Univ-Inst-of-Informatics.html">fano.ics.uci.edu/cites/Organization/Warsaw-Univ-Inst-of-Informatics.html</a>   |
| 8            | Satoru miyano   | 63/235   | <a href="http://fano.ics.uci.edu/cites/Author/Satoru-Miyano.html">fano.ics.uci.edu/cites/Author/Satoru-Miyano.html</a>   |
| 9            | Previous quarters' courses  | 12/285   | <a href="http://www.ics.uci.edu/~kay/courses/previous.html">www.ics.uci.edu/~kay/courses/previous.html</a>   |
| 10           | Proc. 1st latin american symp. theoretical informatics (latin 1992)     | 39/287   | <a href="http://fano.ics.uci.edu/cites/Location/Proc-1st-Latin-American-Symp-Theoretical-Informatics-(LATIN-1992).html">fano.ics.uci.edu/cites/Location/Proc-1st-Latin-American-Symp-Theoretical-Informatics-(LATIN-1992).html</a>   |
| 11           | Informatics 122 winter 2013, project guide                              | 72/416   | <a href="http://www.ics.uci.edu/~thornton/inf122/ProjectGuide">www.ics.uci.edu/~thornton/inf122/ProjectGuide</a>   |
| 12           | Inf 44 links & resources page   | 70/346   | <a href="http://www.ics.uci.edu/~redmiles/inf44-SQ07/links.html">www.ics.uci.edu/~redmiles/inf44-SQ07/links.html</a>   |
| 13           | Proc. 6th int. conf. systemics, cybernetics, and informatics (sci 2002) | 30/276   | <a href="http://fano.ics.uci.edu/cites/Location/Proc-6th-Int-Conf-Systemics-Cybernetics-and-Informatics-(SCI-2002).html">fano.ics.uci.edu/cites/Location/Proc-6th-Int-Conf-Systemics-Cybernetics-and-Informatics-(SCI-2002).html</a> |
| 14           | Xinning gui   | 23/445   | <a href="http://www.ics.uci.edu/~guix">www.ics.uci.edu/~guix</a>   |
| 15           | Theseus - personnel   | 30/369   | <a href="http://www.ics.uci.edu/~etrainer/theseus/personnel.html">www.ics.uci.edu/~etrainer/theseus/personnel.html</a>   |
| 16           | Paul dourish  | 1/313    | <a href="http://www.ics.uci.edu/~jpd/index-old.shtml">www.ics.uci.edu/~jpd/index-old.shtml</a>   |
| 17           | Paul dourish  | 26/293   | <a href="http://www.ics.uci.edu/~ind/personal.shtml">www.ics.uci.edu/~ind/personal.shtml</a>   |