Algorithms used:

1. Hash map (phrase search , stop words , indexer) for fast access.
2. Jsoup library functions (crawler):
   - select : select links in a url.
   - Connect(string url) : method creates a new connection, and gets an HTML file.
   - Text : get URL content

Crawler:

1. Input number of threads from user
2. Load seeds into database
3. Crawl each link and insert it into another database that will be sent to indexer
4. Increment popularity each time a URL is crawled.

Indexer:

1. Take each link from database sent to it by crawler
2. store all words in each URL into a hash map.
3. Load each word in the hash map and store it into a document with tf, priority, and url

Query processor:

1. Takes non-phrase query
2. Stem it
3. Send a list of documents that contains query word to ranker, and append to it query words

Phrase search:

1. Take phrase query
2. Send a list of documents that contains the phrase to ranker

Ranker:

1. Rank the list of document into a database
2. Parameter (TF_IDF + popularity + priority)

Interface:

1. Retrieve the ranked documents sorted
2. Bold query words inside each link