### Controller

This component is in charge of functionality. All commands are handled by MySearchEngine class.

### index

### description

This command will create index file by specific collection.

#### aras

- o collectionDir: indicate the collection directory
- o indexDir: indicate index directory, result will be writed there
- o stopWordsPath: indicate the path of stopwords.txt

## example

java MySearchEngine index collection myindex stopwords.txt

#### search

### description

This command will retrieval documents according to args.

## args

- indexDir: indicate index directory, backend will load inverted index from this file.
- num: top num documents will be retrieved
- [-c]: whether use spellchecker
- query words: list of query words

### example

- o java MySearchEngine search collection 10 -c computre hckre
- o java MySearchEngine search collection 10 computer hacker

## genstop

## description

This command will generate stopwords file according to the collection contents. This command is for testing and analyse, all term

# args

- collectionDir: collection directory
- indexDir: index directory
- o writePath: where to write result

#### example

java MySearchEngine genstop collection myindex stopwords.txt

### statistic

### description

This command will perform statistic in Parser workflow. It will output the distribution of each rules, and writes tokens to files according to rule name, and those file can be a dictionary for spell checker.

#### args

collectionDir: collection directory

#### example

java MySearchEngine statistic collection

### Test

This component is in charge of testing. All commands are handled by Test class.

#### Test all

This command will perform all test case.

example

• java Test all

# Test parser

This command will run all test cases for regex rules.

example

java Test parser

# Test statistic

This command will run all test cases for rule statistic.

example

• java Test statistic

# Test backend

This command will run all test cases for backend

example

• java Test backend

### Test checker

This command will run all test cases for spell checker

example

• java Test checker

### Test cmd

This command will run all test cases for controller

example

• java Test cmd