HW3 Little Research Report

repository (https://gitlab.com/krikun/ir-qq)

0 Structure

```
project/                # little research project
project/docs/           # test document set
project/src/main/scala  # research scala src

project/tasks/          # this reports from .md
```

build with sbt

```
# git clone ssh or https ..
cd project
sbt
...

> run
```

1 Doc set

placed in `project/docs/` directory

docId	terms	tokens
docs/arrays	502	1948
docs/mutable-and-immutable-collections	362	1048
docs/collection-sets	453	1854
docs/collections-trait-traversable	434	1633
docs/collections-trait-iterable	278	713
docs/maps	447	1810
docs/scala-for-java-programmers	962	4983
docs/classes	227	430
docs/sets	453	1854

1.1 Total tokens

```
tokens : 16273
terms  : 1709
```

tokens split by Punct and normalized to terms just by lowercase

```
  val raw = io.Source.fromFile(file).mkString
  // tokenization
  val tokens = raw.split("[\\p{Punct}\\s]+")
  val words = tokens.map(word => word.toLowerCase())
  val roughly = words.toSet
```

1.2 Stop words

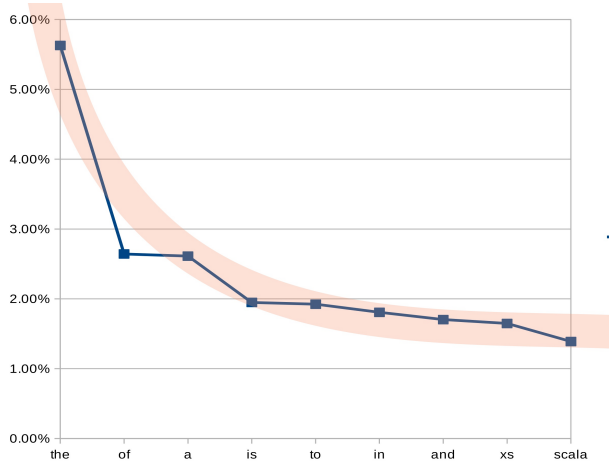
First 9 by occurrence:

the	of	a	is	to	in	and	xs	scala
916	430	425	317	313	294	277	268	226

Total: 3466 out of 16273 tokens

> *As we can see, this is logarithmic distribution.*
> ***xs*** *and* ***scala*** *appears because of test doc set:*
> *src (http://docs.scala-lang.org/tutorials/)*

or, if you wanna, by percentage to tokens:



2 Boolean search

Query : **define**

> *200th most frequent*
> *occurrence : 15*
> *5 of 9 documents*

Result `docId`:

```
docs/arrays
docs/mutable-and-immutable-collections
docs/collections-trait-traversable
docs/maps
docs/scala-for-java-programmers
```