

Lab Dictionary Q2 - Common Words

File 1
Hi
Bye
Tiger
Hi
Hi
Tiger

File 2
Hi
Tiger
Giraffe
Hi
Monkey
Bear

File 3
Hi
Bye
Tiger
Hi
Kuwait
Philippines

File 4
Hi
Urbana
Tiger
Hi
Ticket
Monopoly

Goal: given a list of files and a number n , find all words that appear in every file at least n times.

Ex: $n = 1 \rightarrow$ Hi, Tiger

$n = 2 \rightarrow$ Hi

Member Variables and Starter Code

```
vector<map<string, unsigned int> > file_word_maps
```

- Each map associates a word in that file to the number of times it has been seen in that file.

```
map<string, unsigned int> common
```

- maps a word to the number of documents that word appears in

```
vector<string> CommonWords::file_to_vector(const string &filename) const
```

- Takes a filename and transforms it to a vector of all words in that file.

Your Tasks

`void init_file_word_maps(const vector<string> &filenames)`

- Initializes file_word_maps.

`void init_common()` - Initializes common.

`vector<string > get_common_words`

– Returns a vector of strings. The vector contains all words that appear in each file $\geq n$ times.