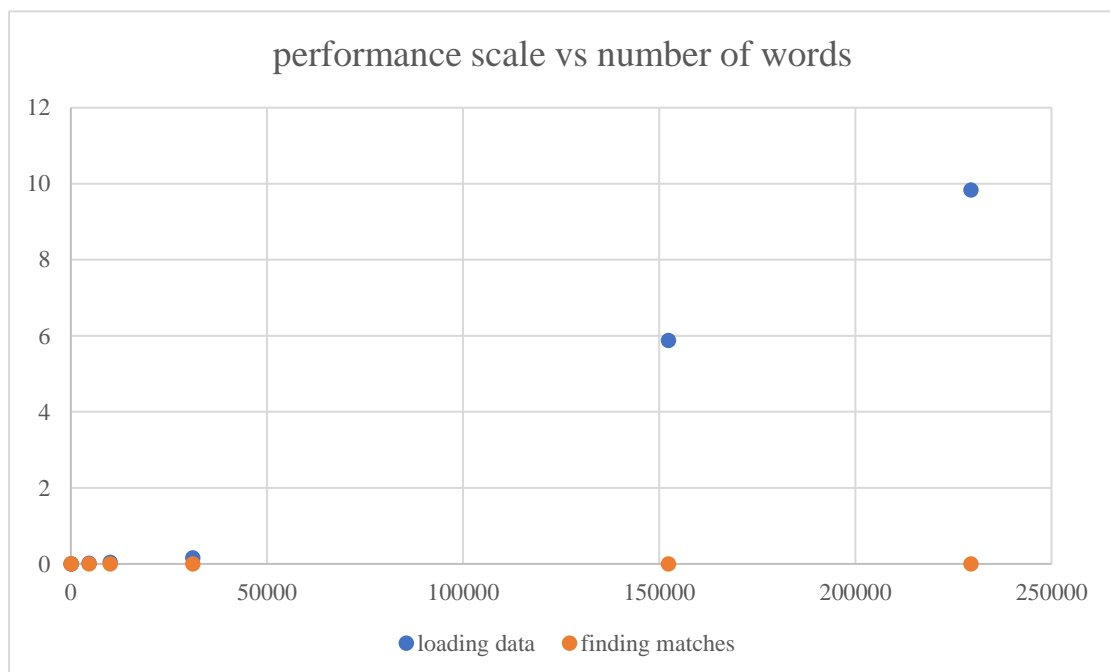


Challenge 1  
 Course: 36650  
 Name: Jiayu Zhu

1. For the largest input file (movies.txt), it takes 9.854s to return matches for typical queries, 9.836890299s for loading the data and building the trie and 0.001872044s for finding the matches.
2. The larger the number of word is, the longer it takes to load the data and find the matches. The complexity of my algorithm should be  $O(m)$ , where  $m$  is the length of the word. Below are the table and the graph.

text file	input size	loading data(s)	finding matches(s)
wiktionary	10000	0.044624036	0.000133994
movies	229447	9.836890299	0.001872044
baby names	31109	0.161775751	0.000430898
part of wiktionary	105	0.00478995	0.0001347
part of wiktionary	54	0.000474975	9.24E-05
part of wiktionary	4660	0.019976812	0.000136815
part of movies	152334	5.877052672	0.001002138



3. trie.py:26(add) and trie.py:7(\_\_init\_\_) seem to be the slowest parts of my code. trie.py:26(add) calls 229447 times and costs 5.233s in total while trie.py:7(\_\_init\_\_) calss 4166730 times and costs 4.167s in total. Maybe find a better and simpler method to build the TrieTree.add function.

## Appendix

\$ py /c/Users/xdlh9/Desktop/driver\_script.py "the" /c/Users/xdlh9/Desktop/wiktionary.txt 5

The time for loading the data and building the tree is 0.04462403620953631  
The time for finding the matches is 0.00013399446673376114  
Suggestions are [(5627187200, 'the'), (334039800, 'they'), (282026500, 'their'), (250991700, 'them'), (196120000, 'there')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "A" /c/Users/xdlh9/Desktop/movies.txt 5
```

The time for loading the data and building the tree is 9.259962312293146  
The time for finding the matches is 0.003263470499001997  
Suggestions are [(760507625, 'Avatar (2009)'), (334185206, 'Alice in Wonderland (2010/I)'), (219613391, 'Alvin and the Chipmunks: The Squeakquel (2009)'), (217326336, 'Alvin and the Chipmunks (2007)'), (217042825, 'Aladdin (1992)')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "Ch" /c/Users/xdlh9/Desktop/baby-names.txt 5
```

The time for loading the data and building the tree is 0.16177575109187858  
The time for finding the matches is 0.00043089799565435016  
Suggestions are [(11796, 'Christopher'), (9668, 'Christian'), (9610, 'Chloe'), (7423, 'Charlotte'), (6887, 'Charles')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "the" /c/Users/xdlh9/Desktop/simple1.txt 5
```

The time for loading the data and building the tree is 0.004789949568714126  
The time for finding the matches is 0.00013469970076919902  
Suggestions are [(5627187200, 'the'), (334039800, 'they'), (282026500, 'their'), (250991700, 'them'), (196120000, 'there')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "the" /c/Users/xdlh9/Desktop/simple2.txt 5
```

The time for loading the data and building the tree is 0.00047497512286939986  
The time for finding the matches is 9.23856586427489e-05  
Suggestions are [(5627187200, 'the'), (334039800, 'they'), (282026500, 'their'), (250991700, 'them'), (196120000, 'there')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "the" /c/Users/xdlh9/Desktop/simple3.txt 5
```

The time for loading the data and building the tree is 0.019976811904914706  
The time for finding the matches is 0.00013681540287552307  
[(5627187200, 'the'), (334039800, 'they'), (282026500, 'their'), (250991700, 'them'), (196120000, 'there')]

```
$ py /c/Users/xdlh9/Desktop/driver_script.py "A" /c/Users/xdlh9/Desktop/simple4.txt 5
```

The time for loading the data and building the tree is 5.877052671814405  
The time for finding the matches is 0.001002137564361405  
Suggestions are [(760507625, 'Avatar (2009)'), (334185206, 'Alice in Wonderland (2010/I)'), (219613391, 'Alvin and the Chipmunks: The Squeakquel (2009)'), (217326336, 'Alvin and the Chipmunks (2007)'), (217042825, 'Aladdin (1992)')]

```
$ py -m cProfile -s time /c/Users/xdlh9/Desktop/driver_script.py "A"
```

/c/Users/xdlh9/Desktop/movies.txt 5

The time for loading the data and building the tree is 9.836890298730085

The time for finding the matches is 0.001872043747077612

Suggestions are [(760507625, 'Avatar (2009)'), (334185206, 'Alice in Wonderland (2010/I)'), (219613391, 'Alvin and the Chipmunks: The Squeakquel (2009)'), (217326336, 'Alvin and the Chipmunks (2007)'), (217042825, 'Aladdin (1992)')]

5094627 function calls (5094511 primitive calls) in 9.854 seconds

Ordered by: internal time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
229447	5.233	0.000	9.401	0.000	trie.py:26(add)
4166730	4.167	0.000	4.167	0.000	trie.py:7(__init__)
1	0.170	0.170	9.826	9.826	autocomplete.py:11(readterms)
1	0.092	0.092	0.092	0.092	{method 'readlines' of '_io._IOBase' objects}
458895	0.087	0.000	0.087	0.000	{method 'split' of 'str' objects}
1	0.053	0.053	9.454	9.454	trie.py:20(__init__)
229447	0.023	0.000	0.023	0.000	{method 'strip' of 'str' objects}
1	0.011	0.011	9.854	9.854	driver_script.py:3(<module>)
65	0.006	0.000	0.006	0.000	{built-in method nt.stat}
1	0.002	0.002	0.002	0.002	{built-in method _imp.create_dynamic}
11	0.001	0.000	0.001	0.000	<frozen importlib._bootstrap_external>:830(get_data)
11	0.001	0.000	0.001	0.000	{built-in method marshal.loads}
118	0.001	0.000	0.001	0.000	{built-in method builtins.hasattr}
1	0.000	0.000	0.002	0.002	autocomplete.py:37(autocomplete)
28	0.000	0.000	0.000	0.000	{built-in method builtins.__build_class__}
41	0.000	0.000	0.006	0.000	<frozen importlib._bootstrap_external>:1233(find_spec)
295	0.000	0.000	0.001	0.000	queue.py:115(put)
13/1	0.000	0.000	9.854	9.854	{built-in method builtins.exec}
11	0.000	0.000	0.000	0.000	{method 'read' of '_io.FileIO' objects}
5	0.000	0.000	0.000	0.000	{built-in method _imp.create_builtin}
399	0.000	0.000	0.000	0.000	threading.py:334(notify)
103	0.000	0.000	0.000	0.000	queue.py:147(get)
1	0.000	0.000	0.000	0.000	{built-in method io.open}
202	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:57(_path_join)
22	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:263(cache_from_source)
17	0.000	0.000	0.007	0.000	<frozen importlib._bootstrap>:861(_find_spec)
1	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:1067(_path_hooks)
1	0.000	0.000	0.002	0.002	tokenize.py:21(<module>)
202	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:59(<listcomp>)
17/2	0.000	0.000	0.016	0.008	<frozen importlib._bootstrap>:958(_find_and_load)
11	0.000	0.000	0.003	0.000	<frozen importlib._bootstrap_external>:743(get_code)
1	0.000	0.000	0.000	0.000	{built-in method nt.listdir}
12	0.000	0.000	0.006	0.001	<frozen importlib._bootstrap_external>:1117(_get_spec)

104	0.000	0.000	0.000	0.000 {built-in method builtins.getattr}
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:430(_validate_bytecode_header)
5/2	0.000	0.000	0.000	0.000 sre_parse.py:469(_parse)
399	0.000	0.000	0.000	0.000 threading.py:254(_is_owned)
295	0.000	0.000	0.000	0.000 {built-in method _heapq.heappush}
399	0.000	0.000	0.000	0.000 threading.py:242(__exit__)
399	0.000	0.000	0.000	0.000 threading.py:239(__enter__)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:493(_init_module_attrs)
318	0.000	0.000	0.000	0.000 {method 'join' of 'str' objects}
17/2	0.000	0.000	0.015	0.007 <frozen importlib._bootstrap>:641(_load_unlocked)
295	0.000	0.000	0.000	0.000 queue.py:226(_put)
25	0.000	0.000	0.000	0.000 {built-in method builtins.min}
221	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:208(_verbose_message)
57	0.000	0.000	0.000	0.000 enum.py:801(__and__)
400	0.000	0.000	0.000	0.000 {method 'acquire' of '_thread.lock' objects}
11/2	0.000	0.000	0.000	0.000 sre_compile.py:64(_compile)
426	0.000	0.000	0.000	0.000 {method 'rstrip' of 'str' objects}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:159(_get_module_lock)
1	0.000	0.000	0.006	0.006 random.py:38(<module>)
37	0.000	0.000	0.000	0.000 {built-in method _thread.allocate_lock}
22	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:63(_path_split)
12	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:524(spec_from_file_location)
126	0.000	0.000	0.000	0.000 enum.py:515(__new__)
3	0.000	0.000	0.000	0.000 tokenize.py:137(_all_string_prefixes)
103	0.000	0.000	0.000	0.000 {built-in method _heapq.heappop}
103	0.000	0.000	0.000	0.000 queue.py:90(empty)
3	0.000	0.000	0.000	0.000 {built-in method builtins.print}
206	0.000	0.000	0.000	0.000 queue.py:223(_qsize)
399	0.000	0.000	0.000	0.000 {method '__enter__' of '_thread.lock' objects}
479/473	0.000	0.000	0.000	0.000 {built-in method builtins.len}
246	0.000	0.000	0.000	0.000 {built-in method builtins.isinstance}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:77(acquire)
65	0.000	0.000	0.006	0.000 <frozen importlib._bootstrap_external>:75(_path_stat)
126	0.000	0.000	0.000	0.000 enum.py:265(__call__)
51	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1080(_path_importer_cache)
17	0.000	0.000	0.003	0.000 <frozen importlib._bootstrap>:553(module_from_spec)
11/2	0.000	0.000	0.015	0.007 <frozen importlib._bootstrap_external>:672(exec_module)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:102(release)
17/2	0.000	0.000	0.016	0.008 <frozen importlib._bootstrap>:931(_find_and_load_unlocked)
22	0.000	0.000	0.000	0.000 {method 'rsplit' of 'str' objects}
6	0.000	0.000	0.000	0.000 sre_compile.py:250(_optimize_charset)
1	0.000	0.000	0.005	0.005 threading.py:1(<module>)
11	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap_external>:485(_compile_bytecode)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:146(__enter__)

295	0.000	0.000	0.000	0.000 {method 'random' of '_random.Random' objects}
1	0.000	0.000	0.000	0.000 __init__.py:359(namedtuple)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:304(__exit__)
17/8	0.000	0.000	0.000	0.000 sre_parse.py:173(getwidth)
1	0.000	0.000	0.003	0.003 hashlib.py:54(<module>)
17	0.000	0.000	0.000	0.000 {built-in method _imp.is_builtin}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:57(__init__)
399	0.000	0.000	0.000	0.000 {method '__exit__' of '_thread.lock' objects}
12	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1228(_get_spec)
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1281(_fill_cache)
12	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:361(_get_cached)
195	0.000	0.000	0.000	0.000 {method 'add' of 'set' objects}
97	0.000	0.000	0.000	0.000 {method 'rpartition' of 'str' objects}
27	0.000	0.000	0.000	0.000 {method 'format' of 'str' objects}
23	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:389(cached)
103	0.000	0.000	0.000	0.000 queue.py:229(_get)
54	0.000	0.000	0.000	0.000 sre_parse.py:232(__next)
4	0.000	0.000	0.000	0.000 threading.py:215(__init__)
1	0.000	0.000	0.000	0.000 token.py:74(<dictcomp>)
41	0.000	0.000	0.000	0.000 sre_parse.py:163(__getitem__)
41	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:37(_relax_case)
31	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:989(_handle_fromlist)
13	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap_external>:85(_path_is_mode_type)
23/2	0.000	0.000	0.014	0.007 <frozen importlib._bootstrap>:197(_call_with_frames_removed)
173	0.000	0.000	0.000	0.000 {method 'append' of 'list' objects}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:297(__enter__)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:355(__init__)
2	0.000	0.000	0.001	0.000 re.py:286(_compile)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:153(__exit__)
14	0.000	0.000	0.001	0.000 hashlib.py:116(__get_openssl_constructor)
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:35(_new_module)
5	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap>:419(spec_from_loader)
11	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap_external>:840(path_stats)
1	0.000	0.000	0.000	0.000 token.py:1(<module>)
41	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:838(__exit__)
17	0.000	0.000	0.000	0.000 {built-in method builtins.any}
68	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:307(<genexpr>)
12	0.000	0.000	0.006	0.001 <frozen importlib._bootstrap_external>:1149(find_spec)
4/2	0.000	0.000	0.000	0.000 sre_parse.py:407(_parse_sub)
17	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap>:698(find_spec)
41	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:834(__enter__)
2	0.000	0.000	0.001	0.000 sre_compile.py:557(compile)
24	0.000	0.000	0.000	0.000 tokenize.py:148(<listcomp>)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:402(parent)

6	0.000	0.000	0.000	0.000 sre_compile.py:223(_compile_charset)
22	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:52(_r_long)
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:393(_check_name_wrapper)
3	0.000	0.000	0.000	0.000 sre_compile.py:378(<listcomp>)
66	0.000	0.000	0.000	0.000 {method 'startswith' of 'str' objects}
2	0.000	0.000	0.000	0.000 sre_parse.py:845(parse)
58	0.000	0.000	0.000	0.000 {built-in method _imp.release_lock}
10	0.000	0.000	0.000	0.000 {built-in method nt.getcwd}
2	0.000	0.000	0.000	0.000 sre_parse.py:223(__init__)
1	0.000	0.000	0.004	0.004 traceback.py:1(<module>)
8	0.000	0.000	0.001	0.000 hashlib.py:73(__get_builtin_constructor)
22	0.000	0.000	0.000	0.000 {built-in method from_bytes}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:142(__init__)
1	0.000	0.000	0.000	0.000 queue.py:27(__init__)
47	0.000	0.000	0.000	0.000 sre_parse.py:253(get)
1	0.000	0.000	0.000	0.000 random.py:71(Random)
1	0.000	0.000	0.007	0.007 queue.py:1(<module>)
1	0.000	0.000	0.000	0.000 random.py:96(seed)
12	0.000	0.000	0.001	0.000 <frozen importlib._bootstrap_external>:94(_path_isfile)
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:800(__init__)
13	0.000	0.000	0.000	0.000 {method 'endswith' of 'str' objects}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:293(__init__)
3	0.000	0.000	0.000	0.000 sre_compile.py:376(_mk_bitmap)
5	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:719(create_module)
2	0.000	0.000	0.000	0.000 sre_compile.py:482(_compile_info)
17	0.000	0.000	0.000	0.000 sre_parse.py:285(tell)
1	0.000	0.000	0.000	0.000 threading.py:738(Thread)
1	0.000	0.000	0.000	0.000 <string>:5(TokenInfo)
1	0.000	0.000	0.000	0.000 {function Random.seed at 0x000001FD13B202F0}
1	0.000	0.000	0.000	0.000 {built-in method math.exp}
1	0.000	0.000	0.003	0.003 linecache.py:6(<module>)
34	0.000	0.000	0.000	0.000 {built-in method nt.fspath}
5	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:218(_requires_builtin_wrapper)
6	0.000	0.000	0.000	0.000 enum.py:795(__or__)
1	0.000	0.000	0.000	0.000 threading.py:757(__init__)
20	0.000	0.000	0.000	0.000 tokenize.py:112(group)
1	0.000	0.000	0.000	0.000 bisect.py:1(<module>)
35	0.000	0.000	0.000	0.000 {built-in method _thread.get_ident}
11	0.000	0.000	0.000	0.000 {built-in method _imp._fix_co_filename}
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1196(__init__)
5	0.000	0.000	0.000	0.000 sre_compile.py:388(_simple)
1	0.000	0.000	0.000	0.000 <string>:1(<module>)
8	0.000	0.000	0.000	0.000 {method 'extend' of 'list' objects}
12	0.000	0.000	0.000	0.000 {built-in method _imp.is_frozen}

1	0.000	0.000	0.000	0.000 trie.py:6(Node)
1	0.000	0.000	0.014	0.014 autocomplete.py:3(<module>)
8	0.000	0.000	0.000	0.000 sre_parse.py:294(_class_escape)
20	0.000	0.000	0.000	0.000 sre_parse.py:171(append)
1	0.000	0.000	0.000	0.000 random.py:663(SystemRandom)
28	0.000	0.000	0.000	0.000 {method 'find' of 'bytearray' objects}
20	0.000	0.000	0.000	0.000 {method 'get' of 'dict' objects}
41	0.000	0.000	0.000	0.000 {built-in method _imp.acquire_lock}
12	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:771(find_spec)
2	0.000	0.000	0.000	0.000 sre_compile.py:542(_code)
11	0.000	0.000	0.000	0.000 sre_parse.py:111(__init__)
36	0.000	0.000	0.000	0.000 sre_parse.py:248(match)
1	0.000	0.000	0.002	0.002 <frozen importlib._bootstrap_external>:919(create_module)
1	0.000	0.000	0.000	0.000 {built-in method _locale._getdefaultlocale}
4	0.000	0.000	0.000	0.000 {built-in method time.clock}
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:173(cb)
17	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:410(has_location)
18	0.000	0.000	0.000	0.000 sre_parse.py:159(__len__)
1	0.000	0.000	0.000	0.000 threading.py:1190(__init__)
1	0.000	0.000	0.000	0.000 {method 'union' of 'set' objects}
5	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:727(exec_module)
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1310(<setcomp>)
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1322(path_hook_for_FileFinder)
1	0.000	0.000	0.000	0.000 queue.py:21(Queue)
2	0.000	0.000	0.000	0.000 {built-in method _sre.compile}
1	0.000	0.000	0.000	0.000 _weakrefset.py:36(__init__)
2	0.000	0.000	0.000	0.000 sre_parse.py:829(fix_flags)
1	0.000	0.000	0.000	0.000 threading.py:566(Barrier)
1	0.000	0.000	0.000	0.000 threading.py:893(_set_tstate_lock)
1	0.000	0.000	0.000	0.000 {built-in method _thread._set_sentinel}
33	0.000	0.000	0.000	0.000 {method 'lower' of 'str' objects}
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:825(get_filename)
1	0.000	0.000	0.000	0.000 _bootlocale.py:11(getpreferredencoding)
1	0.000	0.000	0.000	0.000 {built-in method builtins.repr}
1	0.000	0.000	0.000	0.000 {built-in method math.sqrt}
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:927(exec_module)
6	0.000	0.000	0.000	0.000 __init__.py:422(<genexpr>)
6	0.000	0.000	0.000	0.000 __init__.py:424(<genexpr>)
1	0.000	0.000	0.000	0.000 trie.py:43(search)
2	0.000	0.000	0.000	0.000 sre_parse.py:76(__init__)
1	0.000	0.000	0.000	0.000 threading.py:87(RLock)
1	0.000	0.000	0.000	0.000 threading.py:203(Condition)
1	0.000	0.000	0.000	0.000 threading.py:498(__init__)
1	0.000	0.000	0.000	0.000 threading.py:512(set)

1	0.000	0.000	0.000	0.000 traceback.py:223(FrameSummary)
1	0.000	0.000	0.000	0.000 random.py:87(__init__)
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_md5}
3	0.000	0.000	0.000	0.000 {method 'translate' of 'bytearray' objects}
17	0.000	0.000	0.000	0.000 {method 'partition' of 'str' objects}
8	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:1202(<genexpr>)
1	0.000	0.000	0.000	0.000 _weakrefset.py:81(add)
2	0.000	0.000	0.001	0.000 re.py:231(compile)
6	0.000	0.000	0.000	0.000 sre_parse.py:81(groups)
2	0.000	0.000	0.000	0.000 {method 'setter' of 'property' objects}
2	0.000	0.000	0.000	0.000 {method 'replace' of 'str' objects}
36	0.000	0.000	0.000	0.000 {method 'upper' of 'str' objects}
15	0.000	0.000	0.000	0.000 {built-in method builtins.ord}
5	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap>:744(is_package)
11	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:669(create_module)
1	0.000	0.000	0.000	0.000 trie.py:6(<module>)
5	0.000	0.000	0.000	0.000 sre_parse.py:167(__setitem__)
1	0.000	0.000	0.000	0.000 queue.py:214(PriorityQueue)
1	0.000	0.000	0.000	0.000 traceback.py:310(StackSummary)
1	0.000	0.000	0.000	0.000 traceback.py:426(TracebackException)
2	0.000	0.000	0.000	0.000 tokenize.py:114(maybe)
4	0.000	0.000	0.000	0.000 {method 'items' of 'dict' objects}
5	0.000	0.000	0.000	0.000 {built-in method _imp.exec_builtin}
2	0.000	0.000	0.000	0.000 {built-in method math.log}
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:99(_path_isdir)
1	0.000	0.000	0.000	0.000 <frozen importlib._bootstrap_external>:908(__init__)
1	0.000	0.000	0.000	0.000 sre_compile.py:414(_get_literal_prefix)
4	0.000	0.000	0.000	0.000 sre_compile.py:539(isstring)
1	0.000	0.000	0.000	0.000 sre_parse.py:84(opengroup)
1	0.000	0.000	0.000	0.000 sre_parse.py:96(closegroup)
1	0.000	0.000	0.000	0.000 threading.py:357(notify_all)
1	0.000	0.000	0.000	0.000 threading.py:369(Semaphore)
1	0.000	0.000	0.000	0.000 threading.py:487(Event)
1	0.000	0.000	0.000	0.000 tokenize.py:99(TokenInfo)
1	0.000	0.000	0.000	0.000 tokenize.py:113(any)
6	0.000	0.000	0.000	0.000 {method 'isidentifier' of 'str' objects}
15	0.000	0.000	0.000	0.000 {built-in method builtins.globals}
1	0.000	0.000	0.000	0.000 {built-in method _imp.exec_dynamic}
1	0.000	0.000	0.000	0.000 trie.py:19(TrieTree)
1	0.000	0.000	0.000	0.000 sre_compile.py:441(_get_charset_prefix)
1	0.000	0.000	0.000	0.000 threading.py:1158(Timer)
1	0.000	0.000	0.000	0.000 tokenize.py:222(Untokenizer)
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_sha384}
1	0.000	0.000	0.000	0.000 {method 'values' of 'dict' objects}



6	0.000	0.000	0.000	0.000 {method '__contains__' of 'frozenset' objects}
2	0.000	0.000	0.000	0.000 {built-in method builtins.max}
1	0.000	0.000	0.000	0.000 {built-in method sys._getframe}
1	0.000	0.000	0.000	0.000 queue.py:13(Empty)
1	0.000	0.000	0.000	0.000 queue.py:17(Full)
1	0.000	0.000	0.000	0.000 queue.py:220(_init)
1	0.000	0.000	0.000	0.000 queue.py:233(LifoQueue)
1	0.000	0.000	0.000	0.000 threading.py:449(BoundedSemaphore)
1	0.000	0.000	0.000	0.000 threading.py:720(BrokenBarrierError)
1	0.000	0.000	0.000	0.000 threading.py:890(_set_ident)
1	0.000	0.000	0.000	0.000 threading.py:1188(_MainThread)
1	0.000	0.000	0.000	0.000 threading.py:1207(_DummyThread)
1	0.000	0.000	0.000	0.000 tokenize.py:217(TokenError)
1	0.000	0.000	0.000	0.000 tokenize.py:219(StopTokenizing)
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_sha1}
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_sha224}
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_sha256}
1	0.000	0.000	0.000	0.000 {built-in method _hashlib.openssl_sha512}
1	0.000	0.000	0.000	0.000 {method 'disable' of '_lsprof.Profiler' objects}