

Thu Oct 31 15:57:07 2019 profile\_output

26824262 function calls (241559220 primitive calls) in 94.427 seconds

Ordered by: cumulative time

<u>ncalls</u>	<u>tottime</u>	<u>percall</u>	<u>cumtime</u>	<u>percall</u>	<u>filename:lineno(function)</u>
7/1	0.000	0.000	94.428	94.428	{built-in method builtins.exec}
1	0.000	0.000	94.428	94.428	bitVectorSelect.py:8( <a href="#">&lt;module&gt;</a> )
1	0.000	0.000	94.379	94.379	bitVectorSelect.py:19( <a href="#">main</a> )
1	0.000	0.000	94.005	94.005	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:14( <a href="#">_init_</a> )
1	0.000	0.000	94.005	94.005	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:14( <a href="#">_init_</a> )
14551	0.038	0.000	93.898	93.898	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:33( <a href="#">countbits</a> )
1	0.002	0.002	91.627	91.627	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:38( <a href="#">rank</a> )
53548247/26865290	36.858	0.000	68.487	0.000	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:1819( <a href="#">_getbit</a> )
14553	0.004	0.000	42.700	0.003	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:2687( <a href="#">count_bits</a> )
14553	3.161	0.000	42.696	0.003	{built-in method builtins.sum}
14583	0.007	0.000	26.686	0.002	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:2560( <a href="#">_iter_</a> )
14583	7.993	0.001	26.679	0.002	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:3227( <a href="#">_init_</a> )
19219	4.576	0.000	25.192	0.001	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:1668( <a href="#">_init_</a> )
26808540	18.122	0.000	20.602	0.000	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:1804( <a href="#">_setbit</a> )
26865293	11.141	0.000	12.850	0.000	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:3234( <a href="#">next</a> )
80356869	7.444	0.000	7.444	0.000	{built-in method builtins.isinstance}
53534291	3.269	0.000	3.269	0.000	{method 'append' of 'list' objects}
1	0.009	0.009	2.156	2.156	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:46( <a href="#">rank_b</a> )
26922976	1.714	0.000	1.714	0.000	{built-in method builtins.len}
1	0.012	0.012	0.222	0.222	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:63( <a href="#">rank_p</a> )
1	0.000	0.000	0.138	0.138	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:61( <a href="#">select_rankOf</a> )
1	0.000	0.000	0.099	0.099	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:3181( <a href="#">gen_random_bits</a> )
17/4	0.000	0.000	0.049	0.012	<frozen importlib._bootstrap>:978( <a href="#">find_and_load</a> )
17/4	0.000	0.000	0.049	0.012	<frozen importlib._bootstrap>:948( <a href="#">find_and_load_unloaded</a> )
17/5	0.000	0.000	0.048	0.010	<frozen importlib._bootstrap>:663( <a href="#">load_unloaded</a> )
2/1	0.000	0.000	0.026	0.026	<frozen importlib._bootstrap>:634( <a href="#">load_backward_compatible</a> )
2/1	0.011	0.006	0.026	0.026	{method 'load_module' of 'zipimport.zipimporter' objects}
1	0.000	0.000	0.026	0.026	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/_init_.py:3( <a href="#">&lt;module&gt;</a> )
4897	0.009	0.000	0.022	0.000	{method 'join' of 'str' objects}
6/3	0.000	0.000	0.021	0.003	<frozen importlib._bootstrap>:211( <a href="#">call_with_frames_removed</a> )
24/3	0.000	0.000	0.021	0.007	<frozen importlib._bootstrap_external>:722( <a href="#">exec_module</a> )
15	0.000	0.000	0.017	0.001	<frozen importlib._bootstrap>:576( <a href="#">module_from_spec</a> )
9	0.000	0.000	0.017	0.002	<frozen importlib._bootstrap_external>:1040( <a href="#">create_module</a> )
17/16	0.000	0.000	0.017	0.001	<frozen importlib._bootstrap>:882( <a href="#">find_spec</a> )
9	0.017	0.002	0.017	0.002	{built-in method _imp.create_dynamic}
17/16	0.000	0.000	0.017	0.001	<frozen importlib._bootstrap_external>:1272( <a href="#">find_spec</a> )
17/16	0.000	0.000	0.017	0.001	<frozen importlib._bootstrap_external>:1240( <a href="#">get_spec</a> )
1	0.000	0.000	0.016	0.016	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:38( <a href="#">&lt;module&gt;</a> )
19/18	0.000	0.000	0.015	0.001	<frozen importlib._bootstrap_external>:574( <a href="#">spec_from_file_location</a> )
2	0.000	0.000	0.014	0.007	<frozen importlib._bootstrap_external>:1225( <a href="#">legacy_get_spec</a> )
2	0.000	0.000	0.014	0.007	<frozen importlib._bootstrap>:433( <a href="#">spec_from_loader</a> )
2	0.013	0.007	0.014	0.007	{method 'get_filename' of 'zipimport.zipimporter' objects}
1	0.000	0.000	0.014	0.014	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/hashlib.py:54( <a href="#">&lt;module&gt;</a> )
46080	0.011	0.000	0.011	0.000	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:70( <a href="#">genexpr</a> )
19219	0.003	0.000	0.003	0.000	{method 'pop' of 'dict' objects}
6	0.000	0.000	0.003	0.001	<frozen importlib._bootstrap_external>:793( <a href="#">get_code</a> )
1	0.000	0.000	0.003	0.003	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:8( <a href="#">&lt;module&gt;</a> )
6	0.000	0.000	0.002	0.000	<frozen importlib._bootstrap_external>:914( <a href="#">get_data</a> )
16/1	0.000	0.000	0.002	0.002	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:39( <a href="#">getRank</a> )
19219	0.002	0.000	0.002	0.000	{method 'keys' of 'dict' objects}
6	0.002	0.000	0.002	0.000	{method 'read' of 'io.FileIO' objects}
20970	0.002	0.000	0.002	0.000	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:1732( <a href="#">&lt;lambda&gt;</a> )
14	0.000	0.000	0.002	0.000	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/hashlib.py:116( <a href="#">_get_openssl_constructor</a> )
28	0.000	0.000	0.002	0.000	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:117( <a href="#">rank_indexAtforSelect</a> )
1	0.000	0.000	0.002	0.002	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:8( <a href="#">&lt;module&gt;</a> )
8	0.000	0.000	0.002	0.000	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/hashlib.py:73( <a href="#">_get_builtin_constructor</a> )
1	0.000	0.000	0.001	0.001	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:2( <a href="#">&lt;module&gt;</a> )
55	0.000	0.000	0.001	0.000	<frozen importlib._bootstrap_external>:1356( <a href="#">find_spec</a> )
1	0.000	0.000	0.001	0.001	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/cv2.py:4( <a href="#">&lt;module&gt;</a> )
1	0.000	0.000	0.001	0.001	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:48( <a href="#">clistcomp</a> )
30	0.000	0.000	0.001	0.000	/usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:2567( <a href="#">_str_</a> )
71	0.000	0.000	0.001	0.000	<frozen importlib._bootstrap_external>:1203( <a href="#">path_importer_cache</a> )
16	0.001	0.000	0.001	0.000	{built-in method posix.getcwd}
1	0.000	0.000	0.001	0.001	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:65( <a href="#">clistcomp</a> )
1	0.000	0.000	0.001	0.001	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/bisect.py:1( <a href="#">&lt;module&gt;</a> )
6	0.000	0.000	0.001	0.000	<frozen importlib._bootstrap_external>:523( <a href="#">compile_bytecode</a> )
6	0.000	0.000	0.000	0.000	{built-in method marshal.loads}
76	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:74( <a href="#">path_stat</a> )
245	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:56( <a href="#">path_join</a> )
76	0.000	0.000	0.000	0.000	{built-in method posix.stat}
1	0.000	0.000	0.000	0.000	{built-in method _hashlib.openssl_shal}
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:504( <a href="#">_init_module_attrs</a> )
1	0.000	0.000	0.000	0.000	{built-in method builtins.print}
13	0.000	0.000	0.000	0.000	{built-in method builtins._build_class_}
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:147( <a href="#">enter_</a> )
245	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:58( <a href="#">clistcomp</a> )
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:157( <a href="#">get_module_lock</a> )
21	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:403( <a href="#">cached</a> )
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:93( <a href="#">path_isfile</a> )
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:1351( <a href="#">_get_spec</a> )
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:369( <a href="#">_get_cached</a> )
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:84( <a href="#">path_is_mode_type</a> )
12	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:271( <a href="#">cache_from_source</a> )
278	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:222( <a href="#">verbose_message</a> )
1	0.000	0.000	0.000	0.000	/Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:82( <a href="#">rank_indexAt</a> )
108	0.000	0.000	0.000	0.000	{built-in method builtinsgetattr}
504	0.000	0.000	0.000	0.000	{method 'rstrip' of 'str' objects}
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:318( <a href="#">_exit</a> )
1	0.000	0.000	0.000	0.000	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:88( <a href="#">_init_</a> )
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:151( <a href="#">_exit</a> )
133	0.000	0.000	0.000	0.000	{built-in method builtins.hasattr}
6	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:438( <a href="#">classify_pyc</a> )
1	0.000	0.000	0.000	0.000	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:97( <a href="#">seed</a> )
9	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:1048( <a href="#">exec_module</a> )
1	0.000	0.000	0.000	0.000	{function Random.seed at 0x1020f03b0}
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:103( <a href="#">release</a> )
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:78( <a href="#">acquire</a> )
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:58( <a href="#">_init_</a> )
2	0.000	0.000	0.000	0.000	{built-in method builtins.hex}
2	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:1459( <a href="#">fix_up_module</a> )
27	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:1009( <a href="#">handle_fromlist</a> )
6	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:951( <a href="#">path_stats</a> )
58	0.000	0.000	0.000	0.000	{built-in method math.floor}
5	0.000	0.000	0.000	0.000	{method 'getrandbits' of 'random.Random' objects}
115	0.000	0.000	0.000	0.000	{method 'rpartition' of 'str' objects}
9	0.000	0.000	0.000	0.000	{built-in method _imp.exec_dynamic}
51	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:859( <a href="#">_exit</a> )
65	0.000	0.000	0.000	0.000	{built-in method math.ceil}
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:719( <a href="#">find_spec</a> )
17	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:176( <a href="#">cb</a> )
15	0.000	0.000	0.000	0.000	{built-in method builtins.any}
18	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:51( <a href="#">r_long</a> )
19	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:369( <a href="#">_init</a> )
51	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:855( <a href="#">_enter_</a> )
15	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap>:416( <a href="#">parent</a> )
2	0.000	0.000	0.000	0.000	/usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:174( <a href="#">randrange</a> )
2	0.000	0.000	0.000	0.000	{method 'lower' of 'str' objects}
55	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:36( <a href="#">relax_case</a> )
14	0.000	0.000	0.000	0.000	<frozen importlib._bootstrap_external>:62( <a href="#">path_split</a> )

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16 0.000 0.000 0.000 0.000 {built-in method _imp.is_builtin}
85 0.000 0.000 0.000 0.000 {built-in method _imp.acquire_lock}
34 0.000 0.000 0.000 0.000 {built-in method _thread.allocate_lock}
1 0.000 0.000 0.000 0.000 /usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:1666(BitVector)
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:471(\_validate\_timestamp\_pyc)
17 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:792(find\_spec)
24 0.000 0.000 0.000 0.000 {method 'endswith' of 'str' objects}
85 0.000 0.000 0.000 0.000 {built-in method _imp.release_lock}
1 0.000 0.000 0.000 0.000 {built-in method sys.getsizeof}
2 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:224(\_randbelow)
18 0.000 0.000 0.000 0.000 {built-in method from_bytes}
15 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:311(enter)
3 0.000 0.000 0.000 0.000 {built-in method _csv.register_dialect}
4 0.000 0.000 0.000 0.000 {method 'is_package' of 'zipimport.zipimporter' objects}
17 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:143(init)
15 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:307(init)
48 0.000 0.000 0.000 0.000 {method 'get' of 'dict' objects}
17 0.000 0.000 0.000 0.000 {built-in method _imp.is_frozen}
60 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:321(<genexpr>)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:72(Random)
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:35(new module)
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:401(check\_name\_wrapper)
1 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:1190(\_path\_hooks)
2 0.000 0.000 0.000 0.000 {built-in method math.log}
1 0.000 0.000 0.000 0.000 {built-in method _hashlib.openssl_md5}
29 0.000 0.000 0.000 0.000 {built-in method posix.fspath}
6 0.000 0.000 0.000 0.000 {built-in method _imp._fix_co_filename}
2 0.000 0.000 0.000 0.000 {method 'find_loader' of 'zipimport.zipimporter' objects}
34 0.000 0.000 0.000 0.000 {built-in method _thread.get_ident}
1 0.000 0.000 0.000 0.000 {built-in method math.exp}
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:81(DictReader)
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 posix.register_at_fork}
15 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap>:424(has\_location)
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:884(\_init)
9 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:1029(\_init)
1 0.000 0.000 0.000 0.000 {built-in method _hashlib.openssl_sha384}
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 'union' of 'set' objects}
2 0.000 0.000 0.000 0.000 {built-in method time.time}
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:719(create module)
6 0.000 0.000 0.000 0.000 <frozen importlib._bootstrap_external>:909(get\_filename)
4 0.000 0.000 0.000 0.000 {built-in method math.log2}
1 0.000 0.000 0.000 0.000 {built-in method math.sqrt}
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/random.py:669(SystemRandom)
1 0.000 0.000 0.000 0.000 /Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/RankSupport.py:13(RankSupport)
1 0.000 0.000 0.000 0.000 /Users/hyeonjincho/Desktop/schoolWork/2019_FA/CMSC858D/HW1/Select/SelectSupport.py:13(SelectSupport)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:24(Dialect)
1 0.000 0.000 0.000 0.000 {method 'setter' of 'property' objects}
2 0.000 0.000 0.000 0.000 {method 'bit_length' of 'int' objects}
14 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 builtins.setattr}
1 0.000 0.000 0.000 0.000 {built-in method _hashlib.openssl_sha256}
1 0.000 0.000 0.000 0.000 /usr/local/lib/python3.7/site-packages/BitVector-3.4.9-py3.7.egg/BitVector/BitVector.py:3226(BitVectorIterator)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:55(excel)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:70(unix\_dialect)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:131(DictWriter)
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:166(Sniffer)
1 0.000 0.000 0.000 0.000 {method 'disable' of '_lsprof.Profiler' objects}
1 0.000 0.000 0.000 0.000 /usr/local/Cellar/python/3.7.4_1/Frameworks/Python.framework/Versions/3.7/lib/python3.7/csv.py:65(excel\_tab)
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