```
 1 C:\Users\Teoman\Desktop\CSE0405\cmake-build-debug\
   CSE0405.exe
 2 Enter directory >>C:\Users\Teoman\Desktop\code
 3
 4 C:\Users\Teoman\Desktop\code\main.cpp
 5
 6 Keyword          >>      5        >>include
 7 Keyword          >>      1        >>using
 8 Keyword          >>      1        >>namespace
 9 Keyword          >>      4        >>int
10 Keyword          >>      1        >>struct
11 Keyword          >>      3        >>char
12 Keyword          >>      3        >>if
13 Keyword          >>      8        >>NULL
14 Keyword          >>      4        >>while
15 Keyword          >>      1        >>else
16
17 Total            >>      10       >>Keyword
18
19 ****************************************
20
21 Operator         >>      5        >>*
22 Operator         >>      34       >>=
23 Operator         >>      50       >><<
24 Operator         >>      1        >>==
25 Operator         >>      4        >>!=
26 Operator         >>      13       >>->
27 Operator         >>      24       >>&
28 Operator         >>      1        >>++
29 Operator         >>      9        >>+=
30 Operator         >>      7        >>+
31 Operator         >>      2        >>.
32
33 Total            >>      11       >>Operator
34
35 ****************************************
36
37 Special Char     >>      5        >>#
38 Special Char     >>      71       >>;
39 Special Char     >>      43       >>(
40 Special Char     >>      44       >>)
```

```
41 Special Char     >>      8       >>{
42 Special Char     >>      7       >>[
43 Special Char     >>      7       >>]
44 Special Char     >>      51      >>,
45 Special Char     >>      8       >>}
46
47 Total            >>      9       >>Special Char
48
49 ****************************************
50
51 Num Const        >>      1       >>16
52 Num Const        >>      2       >>64
53 Num Const        >>      1       >>1048576
54 Num Const        >>      12      >>0
55 Num Const        >>      1       >>262144
56 Num Const        >>      1       >>32
57
58 Total            >>      6       >>Num Const
59
60 ****************************************
61
62 String           >>      1       >>"utility.h"
63 String           >>      1       >>"lexOps.h"
64 String           >>      2       >>"\\"
65 String           >>      1       >>"Enter
66 String           >>      1       >>directory\t>>"
67 String           >>      1       >>"Nonexistent
68 String           >>      1       >>Directory!!!"
69 String           >>      4       >>"
70 String           >>      2       >>\n\t"
71 String           >>      2       >>"Keyword"
72 String           >>      2       >>"Operator"
73 String           >>      3       >>"Special
74 String           >>      2       >>Char"
75 String           >>      3       >>"Char
76 String           >>      4       >>Const"
77 String           >>      3       >>"Num
78 String           >>      2       >>"String"
79 String           >>      2       >>"Array"
80 String           >>      2       >>"Identifier"
81 String           >>      1       >>"LexSum
```

```
82 String            >>    2        >>Is:"
83 String            >>    1        >>"GrandSum
84 String            >>    2
          >>"*********************************"
85 String            >>    2        >>"Grand
86 String            >>    1        >>Summation"
87 String            >>    1        >>"Keyword\t\t>>"
88 String            >>    1        >>"Operator\t>>"
89 String            >>    1        >>Char\t>>"
90 String            >>    2        >>Const\t>>"
91 String            >>    1        >>"String\t\t>>"
92 String            >>    1        >>"Array\t\t>>"
93 String            >>    1        >>"Identifier\t>>"
94 String            >>    1        >>Sum\t>>"
95 String            >>    1        >>"PAUSE"
96 String            >>    1        >>"EXIT"
97
98 Total             >>    35       >>String
99
100 ***************************************
101
102 Array             >>    4        >>nameBuffer
103 Array             >>    5        >>directory
104 Array             >>    7        >>dirBuffer
105 Array             >>    1        >>fileBuffer
106 Array             >>    3        >>file
107 Array             >>    2        >>tokenBuffer
108
109 Total             >>    6        >>Array
110
111 ***************************************
112
113 Identifier        >>    1        >><iostream>
114 Identifier        >>    1        >><string.h>
115 Identifier        >>    1        >><dirent.h>
116 Identifier        >>    1        >>std
117 Identifier        >>    1        >>main
118 Identifier        >>    1        >>DIR
119 Identifier        >>    5        >>dir
120 Identifier        >>    1        >>dirent
121 Identifier        >>    5        >>entity
```

122	Identifier	>>	3	>>totalGsum
123	Identifier	>>	3	>>totalKey
124	Identifier	>>	3	>>totalOp
125	Identifier	>>	3	>>totalSp
126	Identifier	>>	3	>>totalCh
127	Identifier	>>	3	>>totalNum
128	Identifier	>>	3	>>totalStr
129	Identifier	>>	3	>>totalArr
130	Identifier	>>	3	>>totalId
131	Identifier	>>	15	>>cout
132	Identifier	>>	1	>>gets
133	Identifier	>>	3	>>strcpy
134	Identifier	>>	1	>>opendir
135	Identifier	>>	22	>>endl
136	Identifier	>>	1	>>exit
137	Identifier	>>	2	>>readdir
138	Identifier	>>	2	>>strcat
139	Identifier	>>	1	>>d_name
140	Identifier	>>	1	>>checkPath
141	Identifier	>>	6	>>bufferP
142	Identifier	>>	2	>>lexNode
143	Identifier	>>	4	>>parseHead
144	Identifier	>>	13	>>parseP
145	Identifier	>>	4	>>headNode
146	Identifier	>>	20	>>headP
147	Identifier	>>	3	>>kc
148	Identifier	>>	3	>>oc
149	Identifier	>>	3	>>spc
150	Identifier	>>	3	>>ccc
151	Identifier	>>	3	>>ncc
152	Identifier	>>	3	>>sc
153	Identifier	>>	3	>>ac
154	Identifier	>>	3	>>ic
155	Identifier	>>	4	>>grandSum
156	Identifier	>>	3	>>lexSum
157	Identifier	>>	1	>>getFile
158	Identifier	>>	2	>>strtok
159	Identifier	>>	2	>>appendLex
160	Identifier	>>	10	>>next
161	Identifier	>>	1	>>setType
162	Identifier	>>	1	>>searchFreq

```
163 Identifier        >>      2       >>lex
164 Identifier        >>      1       >>type
165 Identifier        >>      8       >>printType
166 Identifier        >>      1       >>countTotalFreq(
167 Identifier        >>      7       >>countTotalFreq
168 Identifier        >>      2       >>system
169
170 Total             >>      56      >>Identifier
171
172 *************************************
173
174 LexSum Is:133
175
176 GrandSum Is:735
177
178
179 C:\Users\Teoman\Desktop\code\utility.h
180
181 Keyword           >>      1       >>include
182 Keyword           >>      1       >>bool
183 Keyword           >>      4       >>char
184 Keyword           >>      2       >>if
185 Keyword           >>      2       >>return
186 Keyword           >>      1       >>true
187 Keyword           >>      1       >>else
188 Keyword           >>      1       >>false
189 Keyword           >>      1       >>void
190 Keyword           >>      1       >>int
191 Keyword           >>      1       >>while
192
193 Total             >>      11      >>Keyword
194
195 *************************************
196
197 Operator          >>      5       >>*
198 Operator          >>      6       >>=
199 Operator          >>      1       >>!=
200 Operator          >>      1       >>++
201
202 Total             >>      4       >>Operator
203
```

```
204 ****************************************
205
206 Special Char      >>      1       >>#
207 Special Char      >>      11      >>(
208 Special Char      >>      11      >>)
209 Special Char      >>      6       >>{
210 Special Char      >>      3       >>,
211 Special Char      >>      11      >>;
212 Special Char      >>      6       >>}
213 Special Char      >>      2       >>[
214 Special Char      >>      2       >>]
215
216 Total             >>      9       >>Special Char
217
218 ****************************************
219
220 Char Const        >>      1       >>'\0'
221
222 Total             >>      1       >>Char Const
223
224 ****************************************
225
226 Num Const         >>      1       >>0
227
228 Total             >>      1       >>Num Const
229
230 ****************************************
231
232 String            >>      2       >>"r+"
233
234 Total             >>      1       >>String
235
236 ****************************************
237
238 Identifier        >>      1       >><iostream>
239 Identifier        >>      1       >>checkPath
240 Identifier        >>      2       >>path
241 Identifier        >>      2       >>FILE
242 Identifier        >>      7       >>fp
243 Identifier        >>      2       >>fopen
244 Identifier        >>      2       >>fclose
```

```
245 Identifier        >>      1         >>getFile
246 Identifier        >>      2         >>directory
247 Identifier        >>      3         >>file
248 Identifier        >>      3         >>c
249 Identifier        >>      4         >>i
250 Identifier        >>      1         >>getc
251 Identifier        >>      1         >>EOF
252
253 Total             >>     14         >>Identifier
254
255 *************************************
256
257 LexSum Is:41
258
259 GrandSum Is:118
260
261 *************************************
262 Grand Summation
263 *************************************
264
265 Keyword          >>47
266 Operator         >>163
267 Special Char     >>297
268 Char Const       >>1
269 Num Const        >>19
270 String           >>61
271 Array            >>22
272 Identifier       >>243
273 Grand Sum        >>853
274
275 Press any key to continue . . .
```