cTags

```
user64@trainux01:~$ cd Batch17Oct2024_189
user64@trainux01:~/Batch17Oct2024_189$ ll
total 100
drwxrwxr-x   7 user64 user64  4096 Nov   5 10:13 ./
drwx------  17 user64 user64  4096 Nov   5 18:24 ../
drwxrwxr-x   8 user64 user64  4096 Nov   4 09:47 .git/
-rw-r--r--   1 user64 user64 12288 Nov   4 09:39 .str.c.swp
drwxrwxr-x   3 user64 user64  4096 Oct  28 07:20 CGBatch17Oct2024/
-rw-rw-r--   1 user64 user64    20 Oct  28 06:52 README.md
-rwxrwxr-x   1 user64 user64  8480 Nov   5 10:08 a.out*
-rw-rw-r--   1 user64 user64   213 Nov   4 07:33 abc.c
drwxrwxr-x   3 user64 user64  4096 Oct  29 06:20 ashFldr/
drwxrwxr-x   8 user64 user64  4096 Nov   5 10:40 ashuFldr/
drwxrwxr-x   3 user64 user64  4096 Oct  25 11:39 classwork/
-rw-rw-r--   1 user64 user64    63 Nov   5 06:48 elseif.c
-rw-rw-r--   1 user64 user64   803 Nov   4 10:12 fgh.c
-rw-rw-r--   1 user64 user64    40 Oct  25 11:15 github.txt
-rw-rw-r--   1 user64 user64   322 Nov   4 10:30 intun.c
-rw-rw-r--   1 user64 user64   217 Nov   4 09:54 keer.c
-rw-rw-r--   1 user64 user64   213 Nov   4 09:54 str.c
-rw-rw-r--   1 user64 user64   162 Nov   4 09:56 strint.c
-rw-rw-r--   1 user64 user64     0 Nov   4 09:55 striny.c
-rw-rw-r--   1 user64 user64   580 Nov   5 07:05 swtich.c
-rw-rw-r--   1 user64 user64   161 Nov   4 10:03 tri.c
-rw-rw-r--   1 user64 user64  1144 Nov   5 10:13 while.c
user64@trainux01:~/Batch17Oct2024_189$ cd ashFldr
user64@trainux01:~/Batch17Oct2024_189/ashFldr$ ll
total 12
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ./
drwxrwxr-x 7 user64 user64 4096 Nov  5 10:13 ../
drwxrwxr-x 5 user64 user64 4096 Oct 29 06:20 day06/
user64@trainux01:~/Batch17Oct2024_189/ashFldr$ cd day06
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06$ ll
total 20
drwxrwxr-x 5 user64 user64 4096 Oct 29 06:20 ./
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ../
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 cTagsTool/
drwxrwxr-x 2 user64 user64 4096 Oct 29 07:01 gdbTool/
drwxrwxr-x 2 user64 user64 4096 Oct 29 06:20 gprofTool/
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06$ cd cTagsTool
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool$ ll
```

```
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool$ ll
total 12
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ./
drwxrwxr-x 5 user64 user64 4096 Oct 29 06:20 ../
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ctags/
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool$ cd ctags
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags$ ll
total 12
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ./
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ../
drwxrwxr-x 7 user64 user64 4096 Oct 29 06:20 project/
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags$ cd project
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project$ ll
total 56
drwxrwxr-x 7 user64 user64  4096 Oct 29 06:20 ./
drwxrwxr-x 3 user64 user64  4096 Oct 29 06:20 ../
-rwxrwxr-x 1 user64 user64   318 Oct 29 06:20 Makefile*
-rw-rw-r-- 1 user64 user64   218 Oct 29 06:20 cscope.files
-rw-rw-r-- 1 user64 user64 15863 Oct 29 06:20 cscope.out
drwxrwxr-x 3 user64 user64  4096 Oct 29 06:20 main/
drwxrwxr-x 4 user64 user64  4096 Oct 29 06:20 mod1/
drwxrwxr-x 4 user64 user64  4096 Oct 29 06:20 mod2/
drwxrwxr-x 4 user64 user64  4096 Oct 29 06:20 mod3/
drwxrwxr-x 4 user64 user64  4096 Oct 29 06:20 mod4/
-rw-rw-r-- 1 user64 user64  1075 Oct 29 06:20 tags
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project$ cd main
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project/main$ ll
total 12
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ./
drwxrwxr-x 7 user64 user64 4096 Oct 29 06:20 ../
drwxrwxr-x 2 user64 user64 4096 Oct 29 06:41 src/
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project/main$ cd src
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project/main/src$ ll
total 16
drwxrwxr-x 2 user64 user64 4096 Oct 29 06:41 ./
drwxrwxr-x 3 user64 user64 4096 Oct 29 06:20 ../
-rwxrwxr-x 1 user64 user64  117 Oct 29 06:41 main.c*
-rw-rw-r-- 1 user64 user64  375 Oct 29 06:34 tags
user64@trainux01:~/Batch17Oct2024_189/ashFldr/day06/cTagsTool/ctags/project/main/src$ vi main.c
```

```c
#include <stdio.h>
#include "mod1_func.h"

int main()
{
  printf("main() started\n");
  mod1_func();


  return 0;
}
~
~
~
~
~
~
~
~
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~
~
```

Bring the cursor to the function call of "mod1_func", and press Ctrl-]. Will notice vi opens the file where mod1_func is defined.

Now position the cursor on mod2_func call. Press Ctrl-]. Reach the definition of mod2 func.

Function call stack as of now: main() -> mod1_func() -> mod2_func().

Press Ctrl-t. You will return backwards to the calling place i.e. reach mod1_func()

Function call stack as of now: main() -> mod1_func()

Press Ctrl-t. Will return backwards to the calling place i,e. reach main()

Function call stack as of now: main()

There are many more commands and shortcuts in vi using ctags. e.g. you can give vi command its mod4 func Above command will jump to mod4_func() definition

```c
1 #include <stdio.h>
2 #include "mod1_func.h"
3 #include "mod2_func.h"
4
5 void mod1_func()
6 {
7   printf("mod1_func() is called\n");
8   mod2_func();
9 }
```

```c
1 #include <stdio.h>
2 #include "mod2_func.h"
3 #include "mod3_func.h"
4
5 void mod2_func()
6 {
7   printf("mod2_func() is called\n");
8   mod3_func();
9 }
```

```c
1 #include <stdio.h>
2 #include "mod3_func.h"
3 #include "mod4_func.h"
4
5 void mod3_func()
6 {
7   printf("mod3_func() is called\n");
8   mod4_func();
9 }
```

```c
1 #include <stdio.h>
2 #include "mod4_func.h"
3
4 void mod4_func()
5 {
6   printf("mod4_func() is called\n");
7 }
```