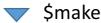
學號:405410100

姓名: 黃晉威

環境:csie0.cs.ccu.edu.tw

信箱: breezekiller789@gmail.com

簡介:



```
siaoweiwei@huangjinweide-MacBook-Pro:cpp_hw1$(git::master) make
g++ -c -o func.o func.cpp -Wall -Werror -c -g
g++ -c -o main.o main.cpp -Wall -Werror -c -g
g++ func.o main.o -o hw1
siaoweiwei@huangjinweide-MacBook-Pro:cpp_hw1$(git::master)
```

# \$gdb hw1

# ▼ (1)印出程式碼

```
(gdb) list
1     // type $make
2     // $./hw1 "string"
3     // The program will print out all the characters apeared in the string
4     #include "header.h"
5
6     using namespace std;
7
8     int main(int argc, char **argv){
9          char *ptr;
10     int len;
(gdb)
```

# ▼ 印出所有 function

```
(gdb) info functions
All defined functions:

File func.cpp:
13:     void Insert(lnode*, char);
6:     lnode *NewNode();
38:     void Traverse_List(lnode*);

File main.cpp:
8:     int main(int, char**);

Non-debugging symbols:
0x0000000010000000000    _mh_execute_header(gdb)
```

▼ (2)設定 breakpoint

```
(gdb) b Insert
Breakpoint 2 at 0x1000000da2: file func.cpp, line 14.
(gdb) ■

(gdb) b main
Breakpoint 1 at 0x100000eb6: file main.cpp, line 11.
(gdb) ■
```

▼ (3)向下執行程式碼(直到 breakpoint)

```
(gdb) set args apple is sweet (gdb) run
```

▼ (4)向下執行一行程式碼

```
for(int i=1; i<argc; i++){</pre>
(gdb) n
16
                   len = strlen(argv[i]);
(gdb) n
17
                   ptr = strdup(argv[i]);
(gdb) n
19
                   for(int i=0; i<len; i++, ptr++){
(gdb) n
20
                        Insert(head, *ptr);
(gdb) n
Thread 3 hit Breakpoint 2, <a href="Insert">Insert</a> (head=0x100200000, ptr=97 'a') at func.cpp:14 struct lnode *node = NULL;
(gdb) n
17
              for(node=head; node->next != NULL; node = node->next){
(gdb) n
27
              if(node->next == NULL){
(gdb) n
28
                   node->next = NewNode();
(gdb) n
29
                   node->key = ptr;
(gdb)
```

▼ (5)印出特定變數值(ex: 變數 a 現在的值)

```
30 node->cnt++;
(gdb)
31 }
(gdb) p node->cnt
$2 = 1
(gdb) ■
```

▼ (6)設定持續印出某變數值

```
(gdb) display ptr
1: ptr = 97 'a'
(gdb) n
35 }
1: ptr = 97 'a'
(gdb)
(gdb)
20
                  Insert(head, *ptr);
(gdb)
Thread 3 hit Breakpoint 2, <a href="Insert">Insert</a> (head=0x100200000, ptr=112 'p') at func.cpp:14 struct lnode *node = NULL;
1: ptr = 112 'p'
(gdb)
17
if(node->key == ptr){
1: ptr = 112 'p'
(gdb) ■
```

### ▼ (7)結束 debugger

```
(gdb) quit
A debugging session is active.
        Inferior 1 [process 5129] will be killed.
Quit anyway? (y or n) y
siaoweiwei@huangjinweide-MacBook-Pro:cpp_hw1$(git::master)
```