

Catch Signal

```
void main()
{
void my_segv_handler(int);
int *y;

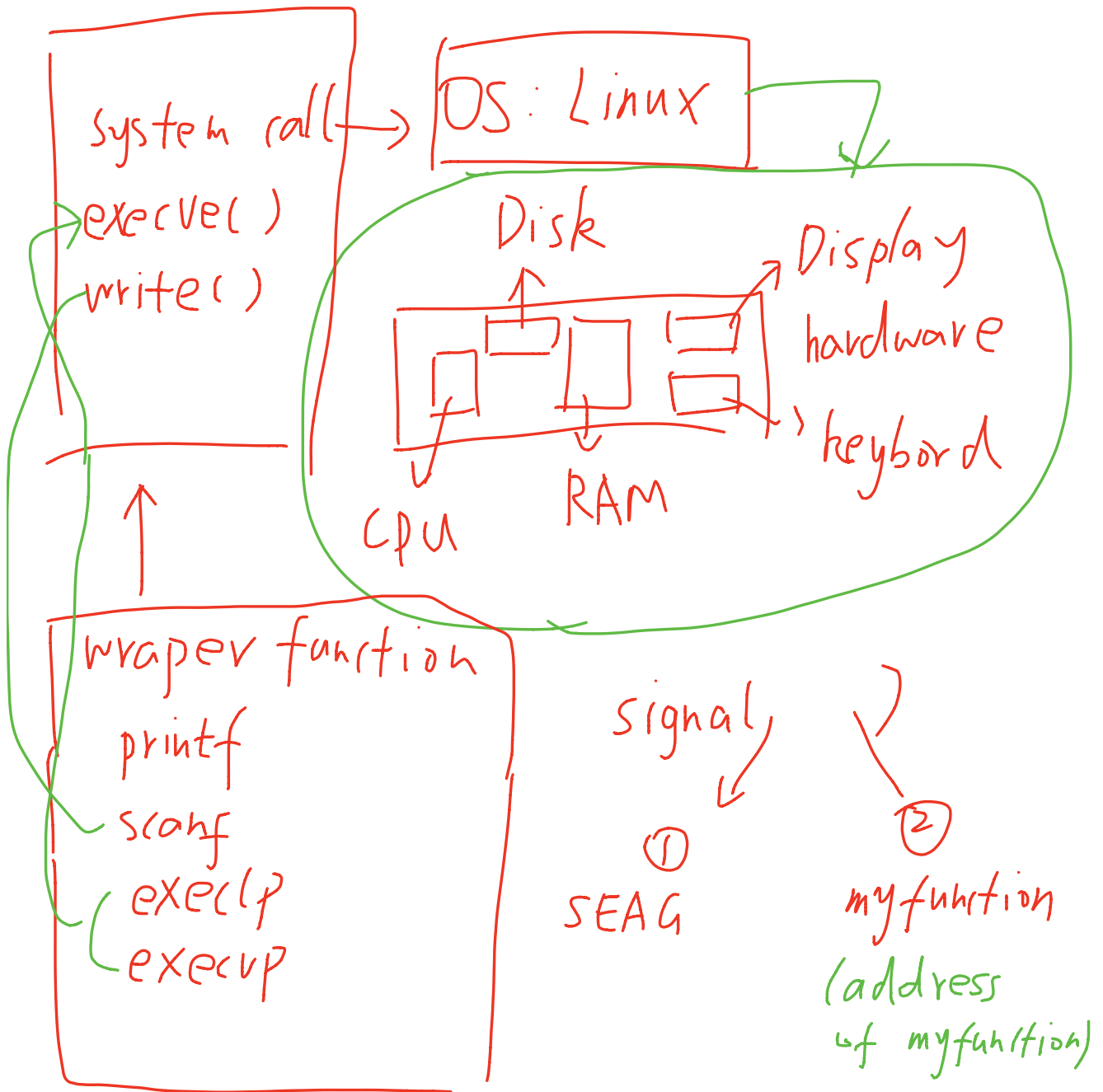
printf("main: %d\n", getpid());

// register signal handler my_segv_handler() with os
// signal(SIGSEGV, &my_segv_handler);

*y = 5;
}

// signal handler catches segmentation fault interrupts
void my_segv_handler(int signal)
{
"main.c" 34L, 541C written
sslab01 40 % gcc main.c
sslab01 41 % a.out
main: 10238
Segmentation fault
sslab01 42 %
```

Ready ssh2: AES-256-CTR 27, 14 27 Rows, 72 Cols VT100



Lab 7 main.c

```
sslslab01.cs.purdue.edu - SecureCRT
File Edit View Options Transfer Script Tools Window Help
Enter host <Alt+R>
Session Manager
sslslab01.cs.purdue.edu
#include <stdio.h>
#include <stdlib.h>
#include <signal.h>

void main()
{
    void my_segv_handler(int);
    int *y;

    printf("main: %d\n", getpid());

    // register signal handler my_segv_handler() with os
    signal(SIGSEGV, &my_segv_handler);

    *y = 5;
}

// signal handler catches segmentation fault interrupts
void my_segv_handler(int signal)
{
    "main.c" 34L, 541C written
    sslslab01 40 %
```

Ready ssh2: AES-256-CTR 27, 14 27 Rows, 72 Cols VT100

```
File Edit View Options Transfer Script Tools Window Help
+ + + + + Enter host <Alt+R>
sslslab01.cs.purdue.edu
{
void my_segv_handler(int);
int *y;

    printf("main: %d\n", getpid());
    // register signal handler my_segv_handler() with os
    signal(SIGSEGV, &my_segv_handler);
    *y = 5;
}

// signal handler catches segmentation fault interrupts
void my_segv_handler(int signal)
{
    if (signal == SIGSEGV) {
        printf("my process is accessing memory it shouldn't\n");
        printf("my_segv_handler: %d\n", getpid());
        while(1);
    }
}
```

pid not change

→ Infinite loop

it's still the same process

```
File Edit View Options Transfer Script Tools Window Help
+ + + + + Enter host <Alt+R>
sslslab01.cs.purdue.edu
sslslab01 % ./a.out
main: 10385
my process is accessing memory it shouldn't
my_segv_handler: 10385
```

same PID

→ SEGFAULT happen, run SEG handler

ssslab01.cs.purdue.edu - SecureCRT

File Edit View Options Transfer Script Tools Window Help

Enter host <Alt+R>

ssslab01.cs.purdue.edu

```
// signal handler example to catch SIGINT:  
// by default: CTRL-C  
  
#include <stdio.h>  
#include <stdlib.h>  
#include <signal.h>  
  
int main()  
{  
    int *y;  
    void my_int_handler(int);  
  
    // register signal handler for CTRL-C with OS  
    if (signal(SIGINT, my_int_handler) == SIG_ERR) {  
        fprintf(stderr, "signal handler registration failed\n");  
        exit(1);  
    }  
  
    // program is infinite loop  
    while(1);  
}  
  
// signal handler my_int_handler() catches CTRL-C key input
```

14,4

ready ssh2: AES-256-CTR 14, 4 27 Rows, 72 Cols VT100

pass more arguments
in handler?

check signal fail or
not

