

DAY09.C

Functions (3) Recursions

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0.1 Nested Function Calls

```
.....:
t3.c
.....:
#include <stdio.h>

void func1( void ) {
    printf("func1: called \n");
}

void func2( void ) {
    printf("func2: called \n");

    func1();
}

void func3( void ) {
    printf("func3: called \n");
    func2();
}

int main( void ) {
    printf("-----\n");
    func3();

    printf("-----\n");
    func2();

    printf("-----\n");
    func1();
}
```

```
.....:
t3.out
.....:
-----
func3: called
func2: called
func1: called
-----
func2: called
func1: called
-----
func1: called
```

func3 calls func2, and func2 calls func1

- func2 calls func1
- func2 needs func1's prototype or definition before its own definition
- func3 calls func2
- func3 needs func2's prototype or definition before its own definition
- functions are defined in the file : func1 - func2 - func3
- before func2's definition, there are func1's definition
- before func3's definition, there are func2's definition
- therefore, no function prototype is needed
- if func3 is called in the main, func3 calls func2, and func2 calls func1
- if func2 is called in the main, func2 call func1.