

สมาชิก

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ข้อ 1

source code

```
0s © cat 01.c activity/03 v15.2.1-gcc 00:31
#include <stdio.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>
int main(){
    printf("I am the parent process. My PID is %d\n", getpid());
    pid_t pid = fork();
    if (pid < 0) {
        printf("[Parent]Error fork failed\n");
    }
    if (pid == 0){
        printf("I am the child process. My PID is %d and my parent's PID is %d\n", getpid(), getppid());
        pid_t pid_2 = fork();
        if (pid_2 < 0){
            printf("[Child]Error fork failed\n");
        }
        if (pid_2 == 0) {
            printf("I am the grandchild process. My PID is %d and my parent's PID is %d\n", getpid(), getppid());
        }
        else{
            wait(NULL);
        }
    }
    else{
        wait(NULL);
    }
    return 0;
}
```

output

```
0s © ./01 activity/03 v15.2.1-gcc 00:34
I am the parent process. My PID is 721658
I am the child process. My PID is 721660 and my parent's PID is 721658
I am the grandchild process. My PID is 721661 and my parent's PID is 721660
```

ข้อ 2

source code

```
8s © cat 02.c activity/03 v15.2.1-gcc 00:40
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/wait.h>
int main(int argc, char *argv[])
{
    pid_t pid;
    pid = fork() ;
    if (pid < 0) {
        printf("Error : cannot fork\n");
        exit(1);
    }
    else if (pid == 0) {
        if (argc < 2){
            printf("Please enter UNIX command\n");
            exit(1);
        }
        execvp(argv[1], &argv[1]);
    }
    else {
        wait(NULL);
        return(0);
    }
}
```

output

```
8s © ./02 activity/03 v15.2.1-gcc 00:38
Please enter UNIX command

8s © ./02 date activity/03 v15.2.1-gcc 00:39
w. 14 u.k. 2569 00:39:06 +07

8s © ./02 head -1 /etc/passwd activity/03 v15.2.1-gcc 00:39
root:x:0:0::/root:/usr/bin/bash

8s © ./02 cal 12 2021 activity/03 v15.2.1-gcc 00:39
ธันวาคม
2021
อ. จ. อ. พ. ศ. ส.
    1  2  3  4
5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
```