

OS project1 report Team19

1. Implementation details or faced difficulties:

Show():按照 hello()的方式用 printk 印出組員學號及姓名

Multiply():從 Input 讀進兩個數，並回傳兩個數的乘積

Min():從 Input 讀進兩個數，比較後回傳較小的數

returnzero(): return 0;

cpu_util: 計算 cpu 使用率

faced difficulties:

不清楚如何測試最後兩個函數，原來是在 test.c 中使用 printf 印出答案

bonus 題中發現在 kernel 中無法使用習慣的 c library (例如 FILE, fgets 等)

手動將字串轉成整數，並將結果表示成浮點數，對於在 kernel 能用的函式知道太少。

2. Test.c:

```
#include<sys/syscall.h>
#include<unistd.h>
#include<stdio.h>
int main(){
    syscall(337);//Show
    printf("%ld\n",syscall(338,94,87));
    printf("%ld\n",syscall(339,94,87));
    syscall(341);//cpu_util
    return 0;
}
```

results:

```
dada@dada-VirtualBox:~/Desktop$ gcc test.c
dada@dada-VirtualBox:~/Desktop$ ./a.out
8178
87
dada@dada-VirtualBox:~/Desktop$ dmesg | tail -n 28
[ 743.716585] hrtimer: interrupt took 4437917 ns
[ 758.534222] B04902103 Tasi Yun Da
[ 758.534225] B04902015 Wang Che Kai
[ 758.534662] cpu 52601 414 22302 32 247 195 12 0 0
[ 758.534680] cpu0 52601 414 22302 32 247 195 12 0 0
[ 758.534697] intr 294845 42 773 0 0 0 0 0 0 4308 593 19616 14B\xffffffbe\x04\xffffffa8W
[ 758.534712] tmp : 52601
[ 758.534726] tmp : 414
[ 758.534739] tmp : 22302
[ 758.534750] tmp : 32
[ 758.534761] tmp : 247
[ 758.534770] tmp : 195
[ 758.534779] tmp : 12
[ 758.534788] tmp : 0
[ 758.534795] tmp : 0
[ 758.534802] total_0 75803
[ 760.534184] tmp : 52744
[ 760.534184] tmp : 414
[ 760.534184] tmp : 22359
[ 760.534184] tmp : 32
[ 760.534184] tmp : 247
[ 760.534184] tmp : 195
[ 760.534184] tmp : 12
[ 760.534184] tmp : 0
[ 760.534184] tmp : 0
[ 760.534184] 22302 22359 75803 76003
[ 760.534184] cpu_usage : 2850
[ 760.534184] 28.50%
dada@dada-VirtualBox:~/Desktop$ █
```