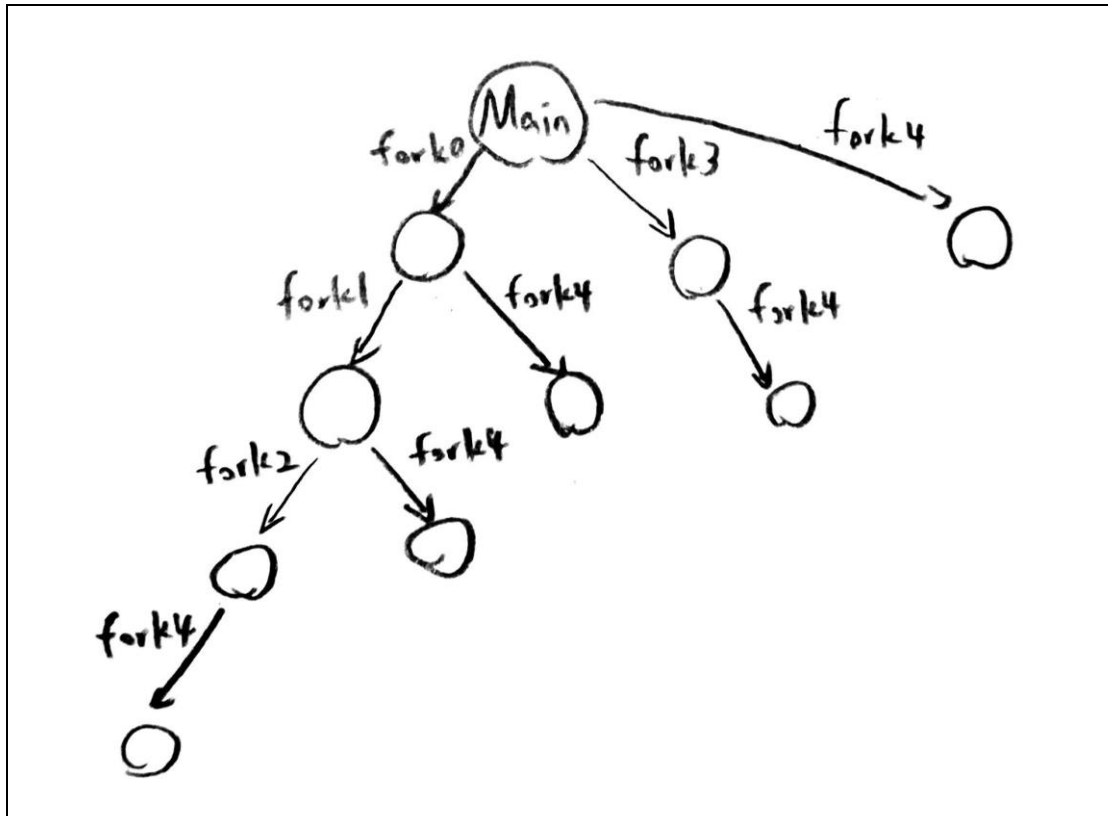# NYCU OS HW1 report 2021

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Q1. hw1_1

Tree format(according to OS_HW1.pdf/p.7):

Q2. hw1_2

Please put your result(screenshot).

Also, write down the problems you met and solutions.

Result

```
[chenyt913@linux3 HW1]$ ./HW1-2
Main Process ID : 2553807
Fork 1. I'm the child 2553808, my parent is 2553807
Fork 2. I'm the child 2553809, my parent is 2553808
Fork 3. I'm the child 2553810, my parent is 2553809
Fork 4. I'm the child 2553811, my parent is 2553807
Fork 5. I'm the child 2553812, my parent is 2553811
Fork 6. I'm the child 2553813, my parent is 2553807
Fork 5. I'm the child 2553814, my parent is 2553813
Fork 5. I'm the child 2553815, my parent is 2553807
```

Problems & solutions

　　　本身在邏輯上沒有遇到什麼太大問題，但在寫 code 時在 code 的簡潔性與易讀性上遇到不少問題，許多 fork 導致需要許多 if-else，且需要重複呼叫 wait、fork、printf，不只讓程式碼看起來有些凌亂，也違反了 DRY(Don't repeat yourself)原則。經過一番嘗試，我最後將重複出現的函數包到一個自定義的 Fork 中，成功讓 code 更加精簡。

Q3. hw1-3

Please put your result(screenshot).

```
[chenyt913@linux3 HW1]$ ./HW1-3
osh>cat hello.txt
Hello World!!
osh>ls
hello.txt  HW1-2  HW1-2.cpp  HW1-3  HW1-3.cpp  HW1-3_my  HW1-3_my.cpp
osh>date
Sun Oct  2 11:26:45 CST 2022
osh>ps -f
UID          PID    PPID  C STIME TTY          TIME CMD
chenyt9+ 2548987 2548986  0 11:21 pts/9    00:00:00 -tcsh
chenyt9+ 2553747 2548987  0 11:26 pts/9    00:00:00 ./HW1-3
chenyt9+ 2553754 2553747  0 11:26 pts/9    00:00:00 ps -f
osh>pwd
/net/cs/109/109550094/OS/HW1
osh>exit
[chenyt913@linux3 HW1]$
```