

# NYCU OS HW1 report 2021

Name

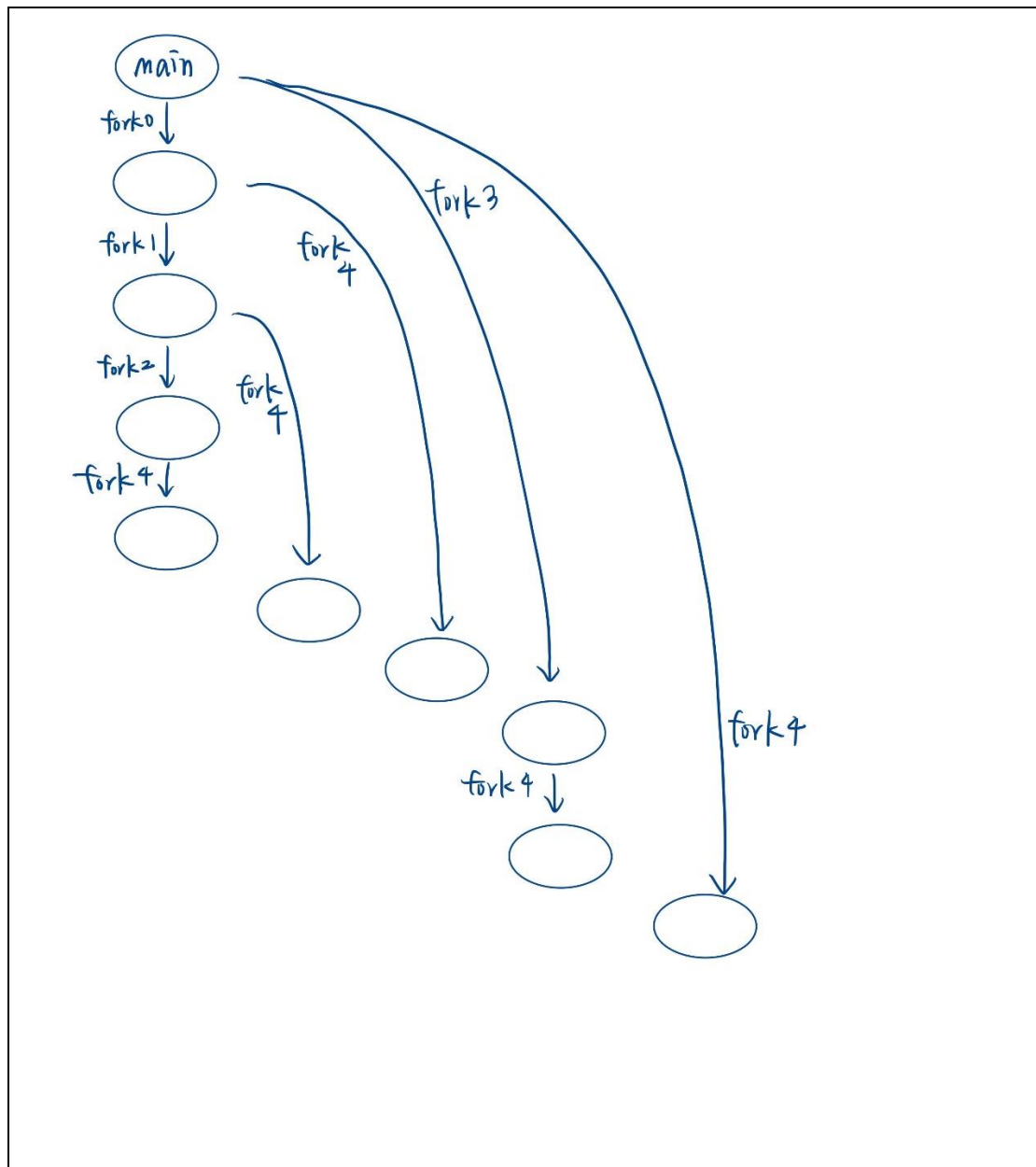
梁詠晴

Student Id

109550134

## 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

```
[ycliang22@linux1 ~]$ nano hw1_2.cpp
[ycliang22@linux1 ~]$ g++ hw1_2.cpp
[ycliang22@linux1 ~]$ ./a.out
Main Process ID : 3386752
Fork 1. I'm the child 3386753, my parent is 3386752.
Fork 2. I'm the child 3386754, my parent is 3386753.
Fork 3. I'm the child 3386755, my parent is 3386754.
Fork 4. I'm the child 3386756, my parent is 3386752.
Fork 5. I'm the child 3386757, my parent is 3386756.
Fork 6. I'm the child 3386758, my parent is 3386752.
Fork 5. I'm the child 3386759, my parent is 3386758.
Fork 5. I'm the child 3386760, my parent is 3386752.
[ycliang22@linux1 ~]$ █
```

#### Problems & solutions

實作時，因為有些 parent 漏掉了 `wait()`，使 fork 的順序和預期的不同。正確判斷 parent process 並加上 `wait()` 後，fork 的順序就對了。

### Q3. hw1-3

Please put your result(screenshot).

```
[ycliang22@linux1 ~]$ g++ hw1_3.cpp
[ycliang22@linux1 ~]$ ./a.out
osh>cat hello.txt
hello world!
osh>ls
a.out  hello.txt  hw1_1.cpp  hw1_2.cpp  hw1_3.cpp  HW1-3_Template.cpp
osh>date
Fri Oct 14 01:41:32 CST 2022
osh>ps -f
UID          PID     PPID  C  STIME TTY          TIME CMD
ycliang+ 3428207 3428206  0  01:39 pts/8        00:00:00 -tcsh
ycliang+ 3429960 3428207  0  01:39 pts/8        00:00:00 ./a.out
ycliang+ 3438305 3429960  0  01:41 pts/8        00:00:00 ps -f
osh>pwd
/net/cs/109/109550134
osh>exit
[ycliang22@linux1 ~]$
```