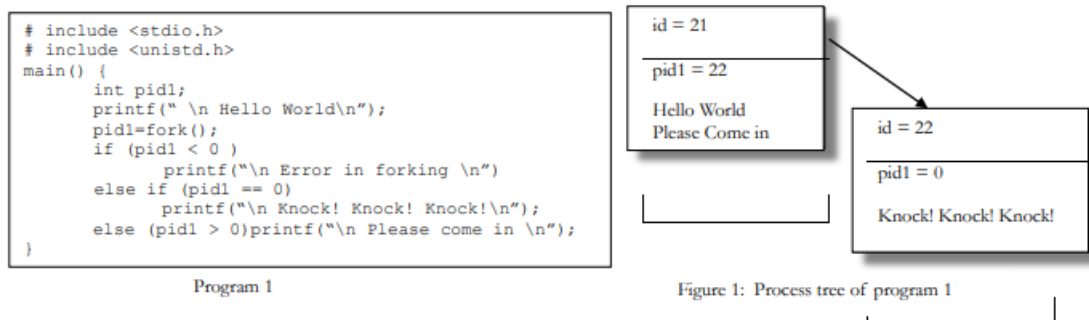
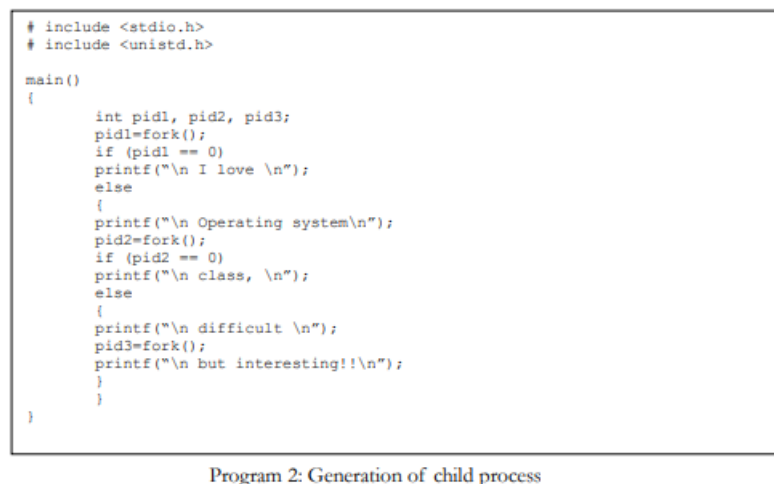


Example: An execution of program 1 produces a process tree, an output, and process identifier assignment as shown in Figure 1. The parent process identifier is assumed to have been assigned with an integer 21, while the child is assigned with the next available identifier i.e 22.

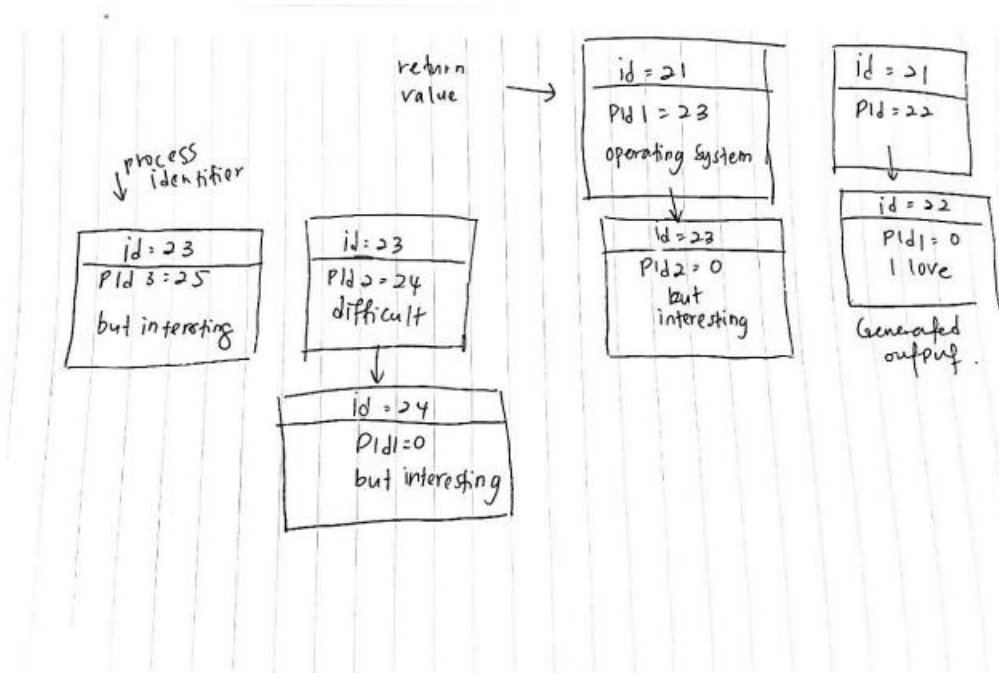


Q1 : Firstly, understand the coding and rewrite back using UNIX program. Then, draw a process tree (as in Figure 1) to illustrate the parent-child relationship for the C code given in program 2. For each node on the tree, write the following information:

- i. The process identifier (assumed that the parent process identifier is assigned, id=21).
- ii. The return value of the fork() statement
- iii. Generated output



Question 1 and 2



Question 3

```
fedora@fedora:~/class/fork
[fedora@fedora ~]$ whoami
fedora
[fedora@fedora ~]$ ls
ameerul  class  Documents  Music  Public  test
ameerul0 Desktop Downloads Pictures Templates Videos
[fedora@fedora ~]$ cd class
[fedora@fedora class]$ ls
fork
[fedora@fedora class]$ cd fork
[fedora@fedora fork]$ ls
a.out  fork1.c  fork2.c  fork3.c
[fedora@fedora fork]$ gcc fork1.c
[fedora@fedora fork]$ ./a.out

Hello World
PID=15654

Please come in
=15654

Knock! Knock! Knock!
=15655
[fedora@fedora fork]$
[fedora@fedora fork]$ gcc fork3.c
[fedora@fedora fork]$ ./a.out

Operating system

difficult

I love

class,

but interesting!!

but interesting!!
[fedora@fedora fork]$
[fedora@fedora fork]$
[fedora@fedora fork]$
```