College of Engineering, Pune
Dept of Computer Engineering and Information Technology
Year (Final B.Tech)
Advanced Unix Programming (AUP)
Lab 8

Write a program to implement the following:

1. Create a new system call wait2, which extends the wait system call.

int wait2(int *wtime, int *rtime, int *iotime)

Where the three arguments are pointers to integers to which the wait2 function will assign:

a. The aggregated number of clock ticks during which the process waited (was able to run but did not get CPU)

b. The aggregated number of clock ticks during which the process was running

c. The aggregated number of clock ticks during which the process was waiting for I/O (was not able to run).

The wait2 function shall return the pid of the child process caught or -1 upon failure

2. Call fork. Let the child create a new session. Verify that the child becomes the process group leader and it does not have a controlling terminal.

3. Write a program to verify that a parent process can change the process group ID of one of its children before the child performs an exec(), but not afterward.