

Assignment 2

I confirm that I will keep the content of this assignment confidential. I confirm that I have not received any unauthorized assistance in preparing for or writing this assignment. I acknowledge that a mark of 0 may be assigned for copied work.

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This assignment creates a child process that is exited without waiting, therefore creating a zombie process. The program will also find zombie processes and show them, then kill the parent of any zombie process, then display the updated list of processes with their states.

```
EYeung@EricMac Operating System Fundamentals % ./A2b

This is the parent process
This is the child process
  UID  PID  PPID    F CPU PRI NI      SZ   RSS WCHAN    S        ADDR  TTY        TIME CMD
  501  6736  6735   4006  0  31  0  4297436 2196 -      S        0 ttys004  0:00.11 -zsh
  501  6816  6736   4006  0  31  0  4269164  656 -      S+       0 ttys004  0:00.00 ./A2b
  501  6818    1   4006  0  31  0  4268140  664 -      S+       0 ttys004  0:00.00 ./A2a
  501  6820  6818   2006  0  0  0         0    0 -      Z+       0 ttys004  0:00.00 (A2a)
sh: line 0: kill: (2006) - No such process
sh: line 0: kill: (4006) - No such process
sh: line 0: kill: (6) - No such process
sh: line 0: kill: (4006) - No such process

Updated list of processes
  UID  PID  PPID    F CPU PRI NI      SZ   RSS WCHAN    S        ADDR  TTY        TIME CMD
  501  6736  6735   4006  0  31  0  4297436 2196 -      S        0 ttys004  0:00.11 -zsh
  501  6816  6736   4006  0  31  0  4278380  684 -      S+       0 ttys004  0:00.01 ./A2b
EYeung@EricMac Operating System Fundamentals % gcc Assignment\ 2\ Part\ 2.c -o A2b
EYeung@EricMac Operating System Fundamentals % ./A2b

This is the parent process
This is the child process
  UID  PID  PPID    F CPU PRI NI      SZ   RSS WCHAN    S        ADDR  TTY        TIME CMD
  501  6736  6735   4006  0  31  0  4297436 2208 -      S        0 ttys004  0:00.12 -zsh
  501  6870  6736   4006  0  31  0  4269164  656 -      S+       0 ttys004  0:00.00 ./A2b
  501  6872    1   4006  0  31  0  4268140  656 -      S+       0 ttys004  0:00.00 ./A2a
  501  6874  6872   2006  0  0  0         0    0 -      Z+       0 ttys004  0:00.00 (A2a)
sh: line 0: kill: (2006) - No such process
sh: line 0: kill: (4006) - No such process
sh: line 0: kill: (6) - No such process
sh: line 0: kill: (4006) - No such process

Updated List of Processes
  UID  PID  PPID    F CPU PRI NI      SZ   RSS WCHAN    S        ADDR  TTY        TIME CMD
  501  6736  6735   4006  0  31  0  4297436 2208 -      S        0 ttys004  0:00.12 -zsh
  501  6870  6736   4006  0  31  0  4270188  668 -      S+       0 ttys004  0:00.01 ./A2b
EYeung@EricMac Operating System Fundamentals %
```