

## Assignment

Write a program that forks a child process. The parent will send SIGALRM to the child. The child will overwrite the default action of SIGALRM so that a message is displayed and the child exits. Without using *wait()*, the parent will exit after the child has exited. (Note: automatically, when a child exits, a SIGCHLD signal is sent to the parent)

More Details:

- Child will:
  - Overwrite the default action of SIGALRM
  - Loop infinitely and print a message "child waiting"
- Parent will:
  - Overwrite the default action of SIGCHLD
  - Sleep for 1 second
  - Send a SIGALRM to the child
  - Loop infinitely and print a message "parent waiting"
- The handler for SIGALRM and SIGCHLD will:
  - Print the numeric value of the signal received
  - Print a message that the child or parent received the signal
  - exit

Sample Run:

- % a.out

child waiting

child waiting

child waiting

child waiting

child waiting

child waiting

child waiting

...

child waiting

child waiting

child waiting

child waiting

child waiting

child waiting

Signal Received 14

Child received signal

parent waiting

Signal Received 17

Parent received signal