Brian Ackley & Anthony Thap

28 January 2014

CSE460 Operating Systems

Tong Yu

Lab4

1 Here are our test programs and our test screenshots.

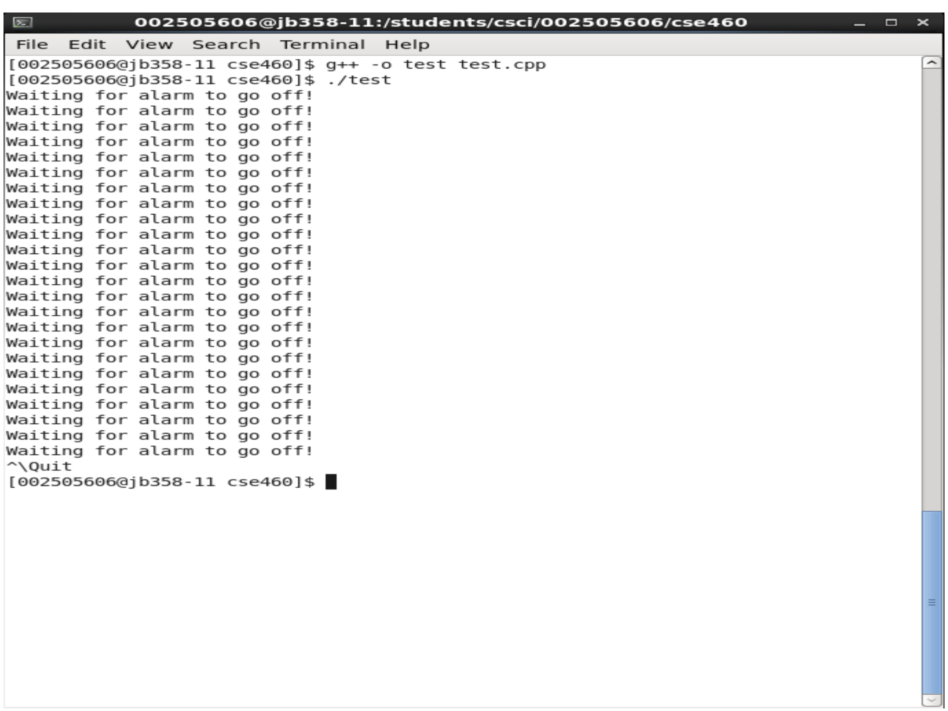
```
#include <signal.h>
#include <unistd.h>
#include <iostream>

using namespace std;

void func ( int sig )
{
  cout << "Alarm has gone off " << sig << endl;
}

int main()
{
  (void) signal ( SIGKILL, func );      //catch terminal interrupts

  while (1) {
    cout << "Waiting for alarm to go off!" << endl;
    sleep (1);
  }
  return 0;
}
```



```
//test_alarm.cpp
#include <signal.h>
#include <unistd.h>
#include <iostream>

using namespace std;

//simulates an alarm clock
void ding ( int sig )
{
  cout << "Alarm has gone off " << endl;
}

//tell child process to wait for 5 seconds before sending
//a SIGALRM signal to its parent.

int main()
{
  int pid;

  cout << "Alarm testing!" << endl;

  if ( ( pid = fork() ) == 0 ) {            //child
    sleep ( 5 );
    /*
            Get parent process id, send SIGALARM signal to it.
     */
    kill ( getppid(), SIGALRM );
    return 1;
  }

  //parent process arranges to catch SIGALRM with a call
  //to signal and then waits for the inevitable.
      int sigaction(int signum, const struct sigaction *act,
                  struct sigaction *oldact);


  pause();                                  //process suspended, waiting for signals to wake up
  cout << "Done!" << endl;

  return 1;
}
```

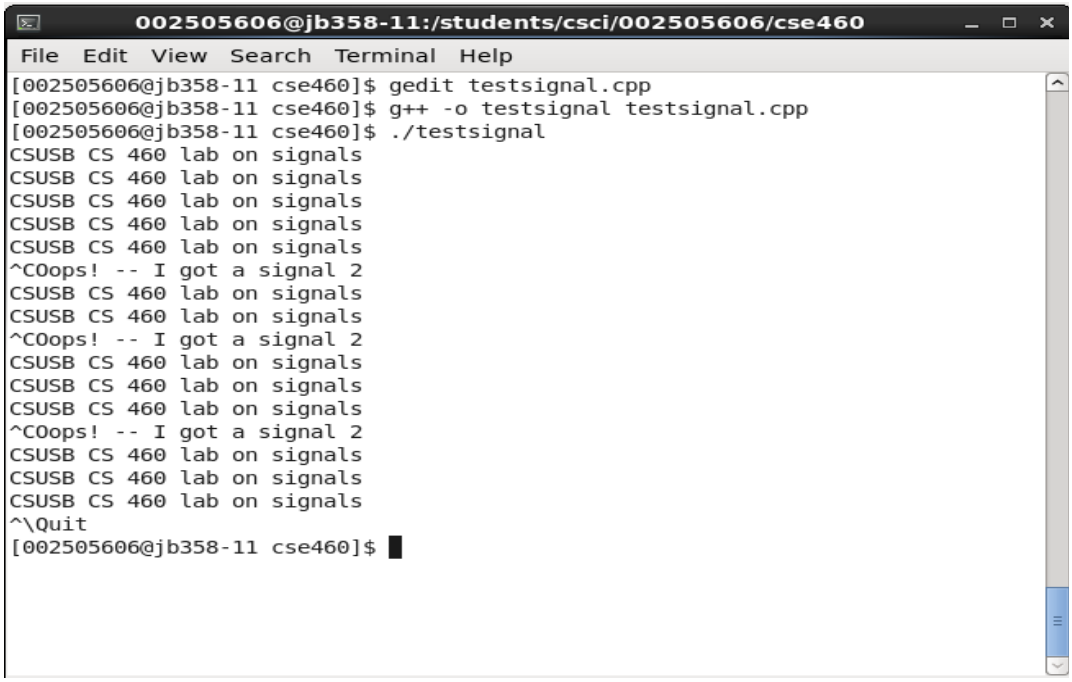

```
//test_signal.cpp
#include <signal.h>
#include <unistd.h>
#include <iostream>

using namespace std;

void func ( int sig )
{
  cout << "Oops! -- I got a signal " << sig << endl;
}

int main()
{
  (void) signal ( SIGINT, func );      //catch terminal interrupts

  for ( int i = 0; i < 20; ++i ) {
    cout << "CSUSB CS 460 lab on signals" << endl;
    sleep ( 1 );
  }
  return 0;
}
```


002505606@jb358-11:/students/csci/002505606/cse460
File Edit View Search Terminal Help
[002505606@jb358-11 cse460]$ gedit testsignal.cpp
[002505606@jb358-11 cse460]$ g++ -o testsignal testsignal.cpp
[002505606@jb358-11 cse460]$ ./testsignal
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
^COops! -- I got a signal 2
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
^COops! -- I got a signal 2
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
^COops! -- I got a signal 2
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
CSUSB CS 460 lab on signals
^\Quit
[002505606@jb358-11 cse460]$