Assignment Summary

Socket communication

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1. **Solution summary**

   I reach the solution by solving the sub-problems in order as bellow:

1) **What is Socket communication?**

   Socket communication is a mechanism to implement interprocess communication on different machine.Most interprocess communication uses the *client server model*. One of the two processes, the *client*, connects to the other process, the *server*, typically to make a request for information.

   The system calls for establishing a connection involve the basic construct of a *socket*. A **socket** is one end of an interprocess communication channel. The two processes each establish their own socket.

2) **How to implement Socket communition in C?**

   Client side:

   1. Create a socket with the socket() system call
   2. Connect the socket to the address of the server using the connect() system call
   3. Send and receive data. There are a number of ways to do this, but the simplest is to use the read() and write() system calls.

   Server side:

   1. Create a socket with the socket() system call
   2. Bind the socket to an address using the bind() system call. For a server socket on the Internet, an address consists of a port number on the host machine.
   3. Listen for connections with the listen() system call

4. Accept a connection with the accept() system call. This call typically blocks until a client connects with the server.
5. Send and receive data

3) Logic of this assignment
   a. set up **socket communication** for both client and server
   b. communicate (send/receive)between client and server
   c. respond Control+c through **signal handle**
   d. test

2. Test Screenshot

To be clear, I changed the type of out file to .txt when test
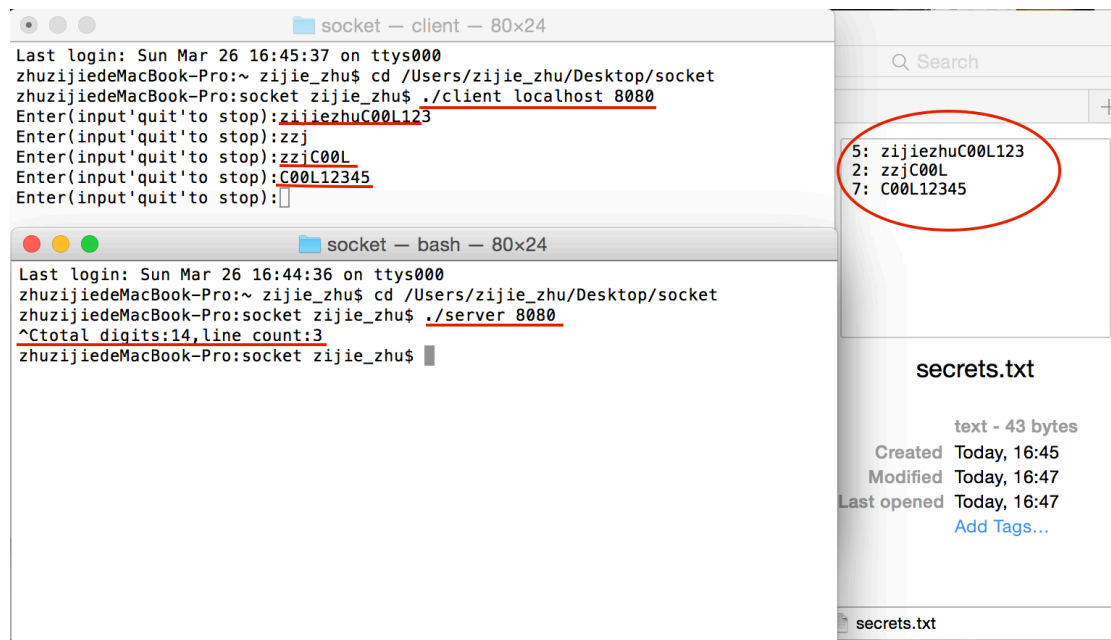
PS: My machine cannot return to main function from signal handle function.

The reason is:

Note In theory, you could remove the exit() call from the signal handler function, and the script should start executing from wherever it left off. However, this feature is not working on several platforms. If you want to test your platform, run the following small program:

3. Reference

http://www.cs.rpi.edu/~moorthy/Courses/os98/Pgms/socket.html

http://www.thegeekstuff.com/2011/12/c-socket-programming/?utm_source=feedburner