SWE2007-42: Software Experiment2 (Fall 2018)

Programming Assignment #2

Due: Nov. 26th, PM 23:59

1. Purpose

   The purpose of the 3rd assignment is making a program which has word search function based on "Socket Communication". The scope of the program is described as following "2. Scope and Rating".

2. Scope and Rating (you can include any standard header files that you want)

   A) There are a Server and Client.

   B) Using TCP Socket, connect Client to Server (**IP: 127.0.0.1, Port: 10000**).

   C) **[30 Pts]** If establishing the connection on success, print a massage "Connection Success" at terminal windows of Client and Server.

   D) Client sends a search-message including *a word* (**Max length: 80 bytes, only lower case**) to Server.

   E) **[20 Pts]** Server looks up the word in a text-file (file name: genesis_index.txt) after receiving the massage from Client.

   F) **[20 Pts]** If there is the word in the text-file, Server sends a result-massage including "True" to Client. Otherwise, Server sends a result-massage including "False" to Client.

   G) **[20 Pts]** Client prints the search word and search result after receiving the result-massage.
   (e.g. "[Search Result] abel : True")

   H) **[10 Pts]** Until terminating one of Server and Client, the program keeps running.

Server Terminal Window	Client Terminal Window
$ **./server 10000** [[Server Starting]]	
	$ **./client 127.0.0.1 10000** [[Client Starting]]
Connected: 127.0.0.1 [[Connection Success]]	
	[[Connection Success]] > abel
[[Receiving Massage from Client]] [[Sending Massage to Client]]	
	[Search Result] abel : True > geniusyoungseok
[[Receiving Massage from Client]] [[Sending Massage to Client]]	
	[Search Result] geniusyoungseok : False >

3. Penalty

   ✓ 15 points deducted per day. After 3 days, you will get 0 point.

   ✓ You should submit source code files (**Server named "server.c", Client named "client.c"**) on i-campus. **Otherwise, you will get –30 points**

   ✓ The source code should be compiled successfully (compile option: "-Wall –W"). Otherwise, you will get 0 point.

※ In this class, there will be assignments the instead of tests (mid-term and final-term). Thereby, the assignments are very important and the question of program implementation issues would be not accepted.