Lab Assignment #08
Submit on or before 20.03.18

Weekly contact	**: 0 – 0 – 3 (L – T – P)**
Course No.	**: CS 612**
Course Title	**: Computer Networks**
Instructor-In-Charge	**: Dr. SK Hafizul Islam (hafi786@gmail.com)**

Assignment 8-1

Write two Socket-based C/C++ programs (server and client) based on the connection-oriented iterative communication using TCP. In this programming environment, the client sends a line of text to the server and the server sends the same line back to the client.

Activities of the Server:
➢ Create a socket with the *socket()* system call
➢ 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.
➢ Listen for connections with the *listen()* system call
➢ Accept a connection with the *accept()* system call. This call typically blocks until a client connects with the server.
➢ Send and receive data, use the *read()* and *write()* system calls.

Activities of the Client:
➢ Create a socket with the *socket()* system call.
➢ Connect the socket to the address of the server using the *connect()* system call
➢ 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.

Assignment 8-2

In Assignment 8-2, the server only handles one connection, and then dies. Change the server program in Assignment 8-2, so that it is running indefinitely and should have the capability of handling a number of simultaneous connections, each in its own process.