University of Dhaka

Department of Computer Science and Engineering

CSE 4211: Distributed Systems Lab

**Assignment Code: A1**

**Assignment Title: Echo Server and Client**

**Date of Assignment: 18/07/2017**

**Last Date of Submission: 24/07/2017**

**Objectives:**

1. Write an Echo Server that does the following:
   1. Starts listening for client requests
   2. When client sends the initiator string - “BEGIN”, sends an acknowledgement ensuring the client that connection has been established
   3. Echo every request sent by the client without modification
   4. When client sends the terminator string - “END”, sends an acknowledgement ensuring the client that connection has been terminated
   5. If client sends any requests after termination, the server will not communicate
2. Write an Echo Client that does the following:
   1. Send initiator string – “BEGIN” to the server to start communication
   2. Send requests in the form of strings
   3. Send terminator string - “END” to the server to end communication

**Marks:**

1. Solving problems, I and II will net 60% marks.
2. The rest of the marks (40%) will be distributed via Viva and Testing.

**Deliverables:**

1. A single package containing all necessary files, codes and instructions for running the program on a generic machine.

The deliverables are to be sent in a single compressed package by email. The compressed filename must be of the format: [Roll No.]\_[Assignment Code].

**Submission Format:**

The assignment must be submitted by email. The email must have the following formatting. The submission will not be accepted if the format is not in the correct order.

Subject: [Assignment Code] [Assignment Title] [Roll No]

Body: Assignment Code

Assignment Name

Roll No.

Date of Assignment

Date of Submission

1. Attachment: A single package containing all necessary files, codes and instructions for running the program on a generic machine. The compressed filename must be of the format: [Roll No.]\_[Assignment Code].

**Example Format:**

Subject: [A1] [Echo Server and Client] [SH – 017]

Body: Assignment Code: A1

Assignment Name: Echo Server and Client

Roll No. SH – 017

Date of Assignment: 18/07/2017

Date of Submission: 18/07/2017

Attachment: SH-017\_A1.tar / SH-017\_A1.zip

Penalty:

1. Plagiarism: If it can be proven beyond reasonable doubt that the assignment code(s) was plagiarized, the code will be invalid and no marks will be attributed.
2. Late Submission: Failure to submit the assignment on time will result in 50% cumulative reduced mark which will be activated each week after the original submission date has passed.