

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: 29/07/2016**

**Last Date of Submission: 1/08/2016**

**Objectives:**

- I. Write an Echo Server that does the following:
  - a. Starts listening for client requests
  - b. When client sends the initiator string - “BEGIN”, sends an acknowledgement ensuring the client that connection has been established
  - c. Echo every request sent by the client without modification
  - d. When client sends the terminator string - “END”, sends an acknowledgement ensuring the client that connection has been terminated
  - e. If client sends any requests after termination, the server will not communicate
- II. Write an Echo Client that does the following:
  - a. Send initiator string – “BEGIN” to the server to start communication
  - b. Send requests in the form of strings
  - c. 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: 29/07/2016

Date of Submission: 01/08/2016

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.