

**Computer Network Laboratory**  
**Lab II Assignment given on: 10-01-2020**  
**Submission deadline: 22-01-2020 (5:30 PM)**

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**Assignment 2:** Client-server programming using Sockets

(I) Implement the following rudimentary string processing application using connection-oriented client-server programming using C or C++. Some guidelines for the implementation are as follows.

- a) The client will send a textual paragraph terminated by '\n' to the server (assume that in the paragraph, '.' appears only at the end of sentences and nowhere else). The server will compute the number of characters, number of words, and number of sentences in the paragraph, and send these numbers back to the client. The client will print these numbers on the screen.
- b) Assume that only one client requests for service at a given time. Implement the server as an iterative server.

(II) Extend the above so that the server can handle multiple concurrent client requests, that is. The server is to be implemented as a concurrent server.

**Submission Details:**

1. Please read the questions carefully and complete it.
2. Make a directory with name <YourRoll Number> and copy your all program(source code) and output file to that folder.
3. You can use C or Cpp for this assignment
4. Please save your program with <rollnumber\_1>.c/cpp for first program and <rollnumber\_2>.c/cpp for second program.
5. Please copy your output and paste it to related program at the end of source code(please comment it)/ if necessary you can take screenshot name it with its question number and put it in a same folder.
6. After completing all the tasks please show it to TA's. Once the result is correct then only we allow you to upload to the moodle.
7. Please zip your folder and submit to moodle within 22-01-2020 (5:30 PM).