



Echo Server

1. You are required to create an echo server using a python [socket server](#).
(You can use Java)
 - a) The server will take one line from the client each time. The first character of the line is 'A', 'C', or 'D' the rest of the line will be a set of letters that would be treated as one string.
 - b) The server then receives your request then orders the characters of your string and sends the ordered string back to the client.
 - c) If the first character is 'A' then the order will be descending.
 - d) If the first character is 'C' the order will be ascending.
 - e) If the first character is 'D' all letters will be capitalized.
 - f) Else, the server will return the same message it receives.
2. You are required to provide a screenshot of **Wireshark** showing the traffic between your server and client.

Supplementary Material:

- Socket Programming:
 - i. <https://docs.python.org/3/howto/sockets.html>
 - ii. <https://docs.python.org/3/library/socketserver.html>
- Wireshark Tutorial:
 - i. <https://youtu.be/L3bCS9siEkI>

Policy:

- You are required to answer the above questions.
- The deadline for delivery is your lab time.
- A discussion will be made in your lab about your answers.
- You must work in groups of 2.
- Your answers should be clean, readable, and supported with screenshots.
- Cheating will be severely penalized.
- No late submission is allowed.