COMP2602 Computer Networks

Assignment 2 (Individual)

DUE: Fri 18th November, 2022 by midnight

Additional Research may be needed for this assignment.

Write **TCP** client server python programs to implement a basic voting application. There are only two candidates: JohnD and JaneD.

Details

- The client votes for a candidate by sending the candidate name to the server. The server waits for the client's call, collects the name and adds one to the vote counter for that candidate. At the end, print the results of the voting process at the server and client. Note that a tie is possible.

- The client loops, sending a name to the server each time until 10 names have been sent. The client then prints "End of Voting".

- After the server processes each vote, a message, "vote successful" is sent back to the client. This message must be displayed at the client.

- Sample message at the server at the end of processing:
  "JohnD got 4 votes and JaneD got 6 votes so JaneD is the winner."

Notes

- No data validation are necessary.

- Do not prompt for names at the client. Use a file called **"votes.txt"** instead and send names from this file to the server.

- Name the client **VoteClient.py** and the server program **VoteServer.py**

Submission:
Zip your files and submit via My Elearning. Name the file "Firstname Initial + Lastname_ID.zip", e.g. "JDoe_01609982.zip". Only 1 submission is allowed, so be careful that your file submitted is the final version

Testing of your programs
You can run all programs on a single computer.

Further Instructions:

Do not use the eval( ) method in python.

The client must send all messages over the same TCP connection.

[PTO]

Marking Scheme (Program must have most parts working correctly)

Client works seamlessly	7
Automation of sending of names from client (files)	2
Server works seamlessly	13
Overall Quality	3
TOTAL	**25 marks**

[Syntax and logic error programs will generally earn no more than 10 marks]

Notes

- All assignments in this course require research. The research done forms part of the knowledge for the course and can also be tested later on e.g. reading of files in Python.

- A random set of students may be interviewed about their programs.