National University of Computer and Emerging Sciences

Laboratory Manuals
for
Computer Networks - Lab

(CL -3001)

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Section	BCS-6B
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Objective: TCP Multi-threading using pthreads.

In lab Statement: (20)

<u>ONLINE VOTING SYSTEM</u>

You are to devise an online vote casting system using **TCP** multithreaded server-client program. The voters will log on from client systems and cast their votes. Note that

<mark>One client can cast a vote ONCE AND ONLY ONCE</mark>.

A list of registered voters is available in a text file in the following format:

Name/CNIC number

System should be secure and should only allow clients with authentic name and CNIC to cast the vote.

The Server shall

- First of all take the client's name and CNIC and match it with the content of the text file (Voters_List.txt).
- If the details match, then it will welcome the voter and **display the names and poll symbols of the candidates on the terminal**.(Candidates_List.txt)
- The voter will then cast the vote by **MENTIONING THE POLL SYMBOL (not the name) OF THE CANDIDATE. All these details are to be recorded in an output text file.**
- This system should work perfectly for **at least 5 different clients.**

<mark>Note:</mark>

1. You should be familiar with basic file streaming commands in C.

2. The server-client code **should be in C** and only C language. No other language is accepted

3. Student shall be awarded zero in the lab and -50 absolutes, if plagiarism of any kind is found in this lab.