
A Project Report
on
Online Survey
System

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Project Analysis

The topic allocated to us for the socket programming project is “e-Survey System”. Here, the client establishes a connection with the server; this implies that the TCP protocol is being used. The Server should allocate a new thread for every new incoming Client. To accomplish this feature, we took care of a concurrent thread; that is, when the number of connections is made with the server, that time, each line doesn’t interfere with one another. Therefore, we synchronized the threads.

❖ Design and Implementation:

1. A secure server only allows clients with exact names and passwords to cast votes.
2. Server checks for the authenticity of the client & also checks if the client has already voted. It returns a message to the client according to the security check.
3. Admin registers voters, and the voter list is stored in a CSV file.
4. Server can take the client’s name and password and match it with the txt file.
5. If details match, the voter is redirected to the secured Survey page.
6. The voters will then cast a vote by mentioning the poll symbol of the candidate from the candidate list provided by the server.
7. The system (server) can handle multiple clients and create a new thread for each.
8. One client can cast a vote once and only once.

Requirements

Python Libraries Required:

- Pandas
- Tkinter
- Socket
- Subprocess

Tools Used

- Programming: Python
- Connection: Socket Programming
- Protocol: TCP
- User Interface: python-Tkinter
- Data Storage: Using CSV files
- Data Updates: python-pandas
- OS Calls: python-subprocess

How to Run

1. Open the terminal/command prompt on your PC.
2. Navigate to the 'Survey' folder
3. Run the command: `python homePage.py`
4. A new home page window should open. If this doesn't happen, check your installations.
5. Login into Admin using the details in the 'How to log in part.
6. Click on the 'Run Server' Button.
7. Use the rest of the Buttons as per your need.

How to Login

❖ Admin Login:

→ Admin ID: Admin →
Password: admin

❖ Voter Login:

- ❑ The server should be running for voters to be able to log in.
- Already registered voter I. Ds: 10001 to 10005
- Password (for already registered voters): abcd

Workflow Description

❖ In order Description to run & test this project:

1. Open the terminal & run `python homePage.py` to open Home Page Window.
2. Log into Admin and press 'Run Server.' This will run the Server in a new console window.
3. Now that the server is running, return to the admin home page window.
4. Press 'Register Voter' and enter details to register a new voter. Remember or note down the 'Voter ID' you will receive on successful registration.
5. Press 'Home' to return to the Home. Now, press 'Voter Login' to open the voter login page.
6. Enter the login details and be redirected to the Survey Page. You will receive an error message if the Voter has a disability or has already cast a vote.
7. Cast a Vote. Now on receiving a success message, press home to return home.
8. Login into Admin again. Press 'Show Votes' to check all parties' votes so far.
9. Return to Home. You can press 'New Window' to open multiple pages and cast a vote concurrently from numerous voters.

Flow Chart

