MIDLANDS STATE UNIVERSITY

Faculty of Commerce

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION SYSTEMS

MASTERS IN INFORMATION SYSTEMS MANAGEMENT DEGREE (MISM) LEVEL1:2

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Using Git/GitHub deploy a voters' roll inspection system (the link should explicitly demonstrate the commands used)

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DOCUMENTATION ON E-VOTING SYSTEM

1.0 Project Analysis

The assignment allocated to us is to create a Voters registration system "e-Voting System". We went on to create a full voter's system where people can register and proceed to vote.

2.0 Design and Implementation:

1. A secure server that only allows clients with authentic names and passwords to cast votes.
2. Server checks for 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. Voters are registered by admin 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, then the voter is redirected to the secured Voting page.
6. The voters will then cast the 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 creates a new thread for each of them.
8. One client can cast a vote once and only once.

3.0 Requirements

Python Libraries Required:

➔ Pandas

➔ Tkinter

➔ Socket

➔ Subprocess

4.0 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

5.0 How to Run

- Open terminal/command prompt on your PC.
- Navigate to 'Evotingsystem' folder
- Run command:

python homePage.py

- A new home page window should open. If this doesn't happen, check your installations.
- Login into Admin using given details in 'How to Login' part.
- Click on the 'Run Server' Button.
- Register the voter – the voter is now in the system and can access the voter's page to vote

6.0 How to Login

❖ Admin Login: ➔ Admin ID: Admin ➔ Password: admin

❖ Voter Login:

❑ Server should be running for voters to be able to login.

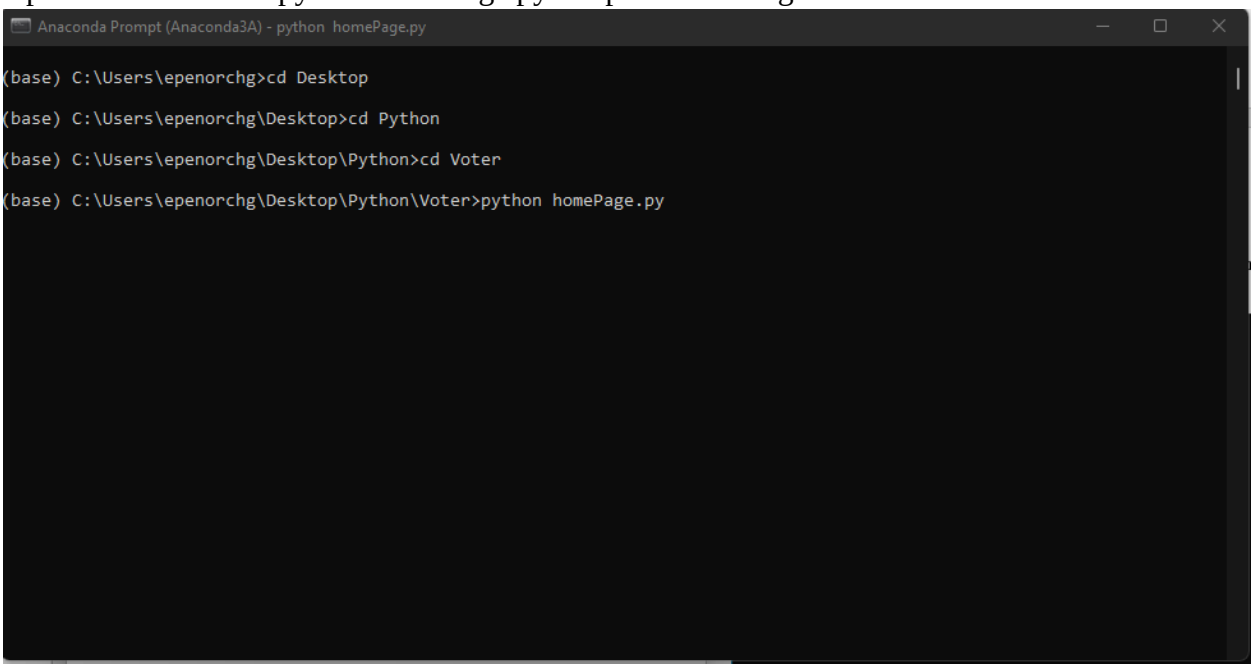
➔ Already registered voter I. Ds: 10001 to 10009

➔ Password (for already registered voters): abcd

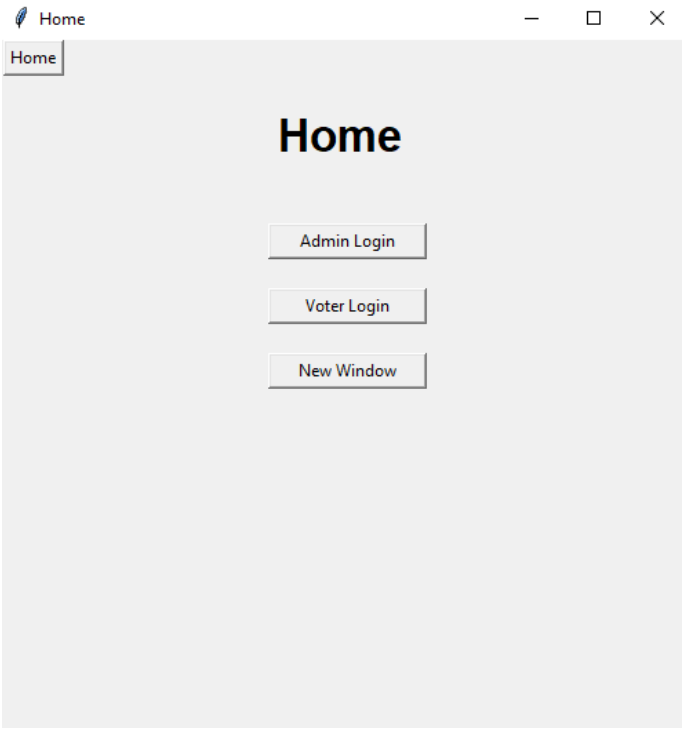
7.0 Workflow Description

❖ In order Description to run & test this project:

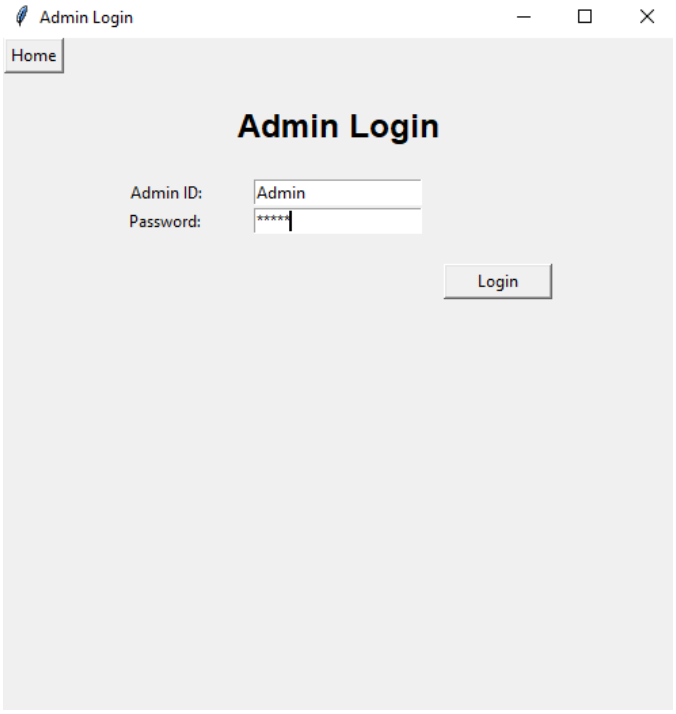
1. Open terminal & run python homePage.py to open Home Page Window.

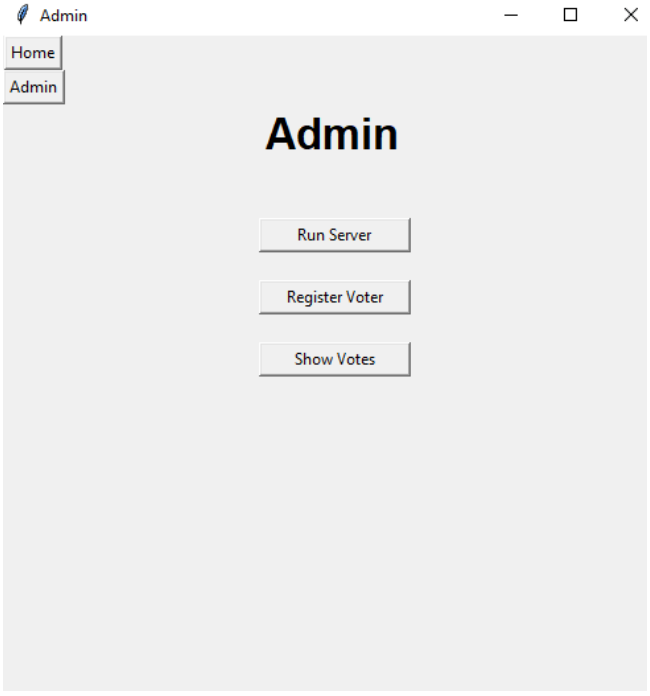


The following window after running the commands will pop up

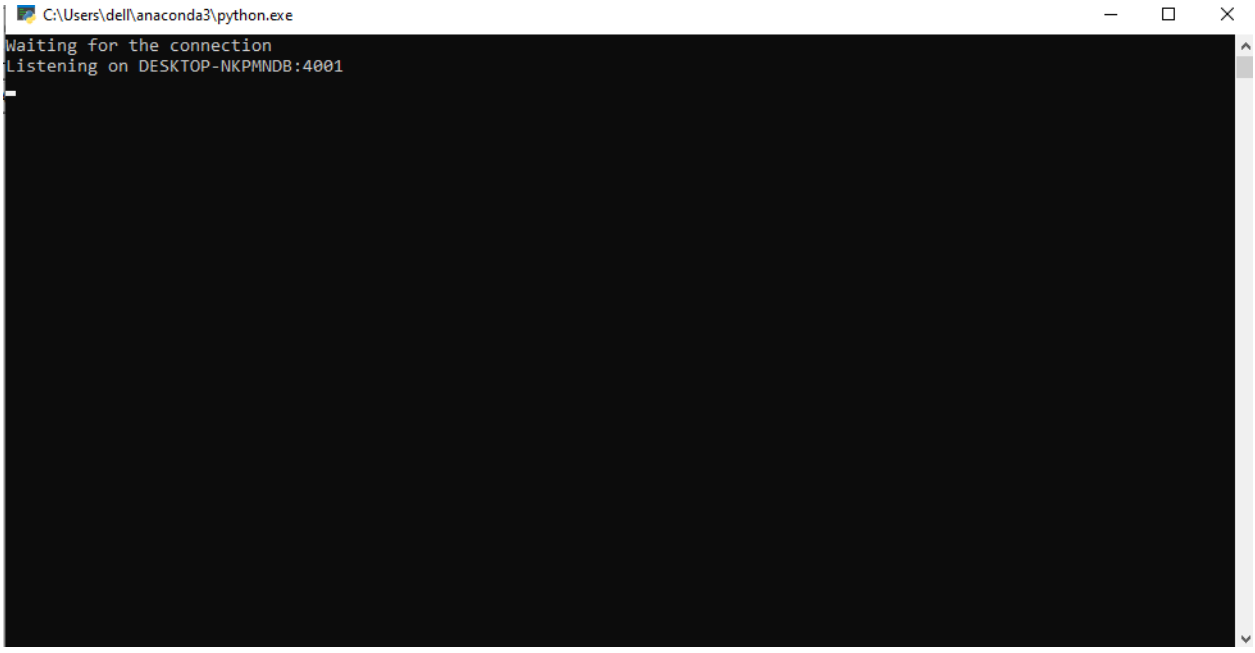


2. Log into Admin and press ‘Run Server’. This will run the Server in a new console window.

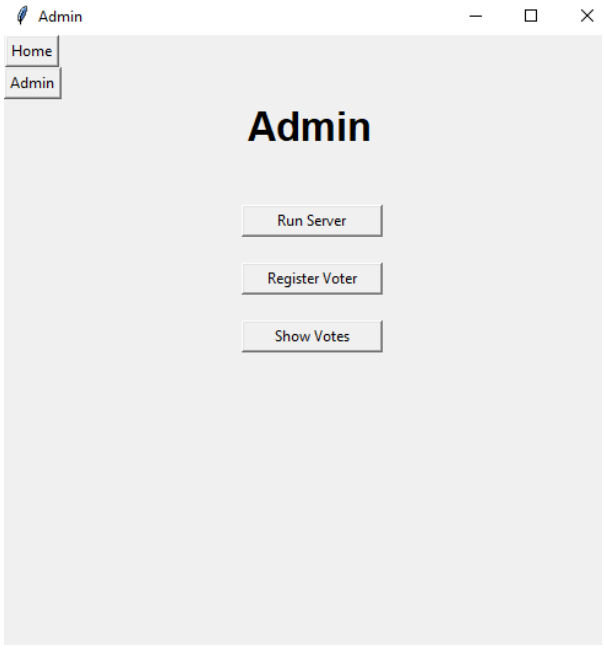




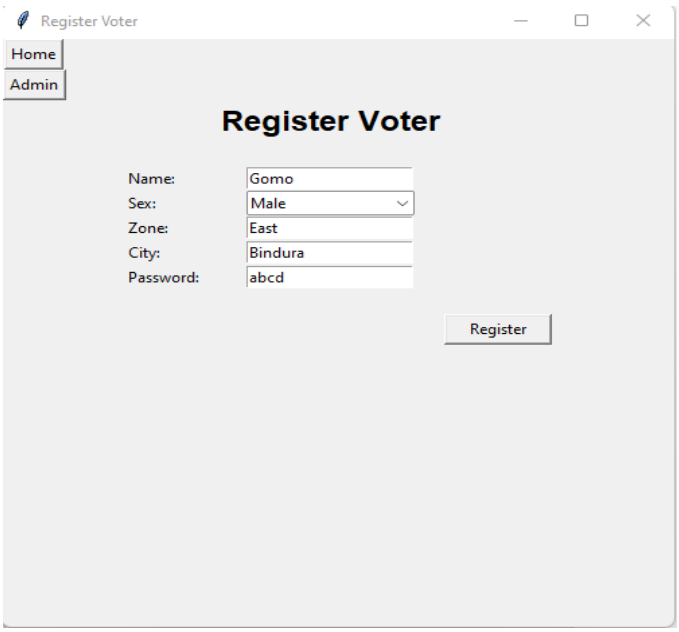
The server is now running as shown below

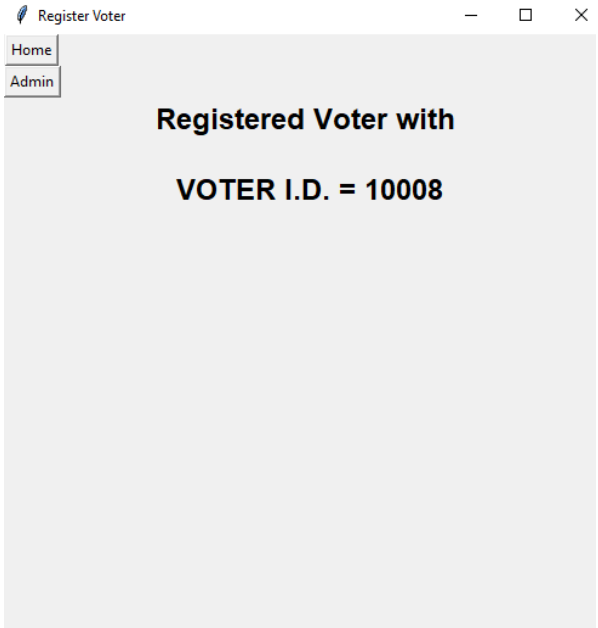


3. Now that the server is running, return to the admin home page window.

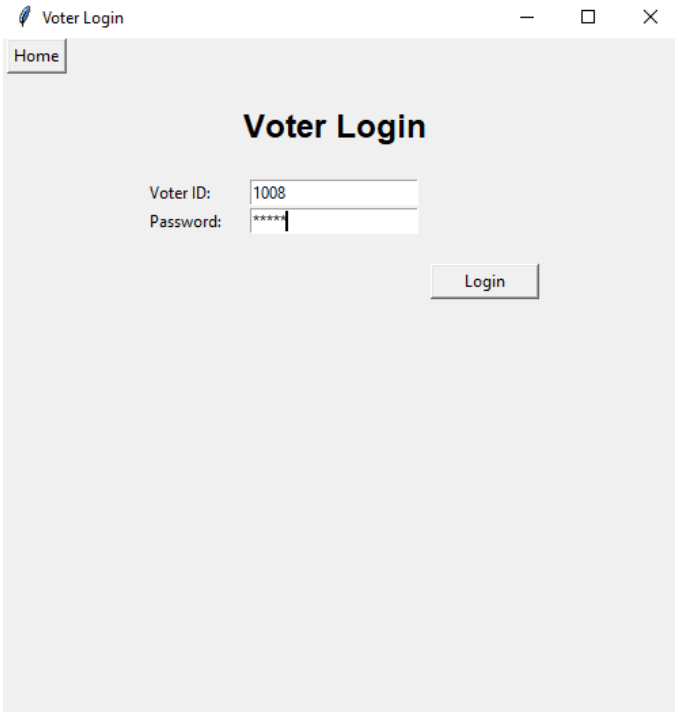


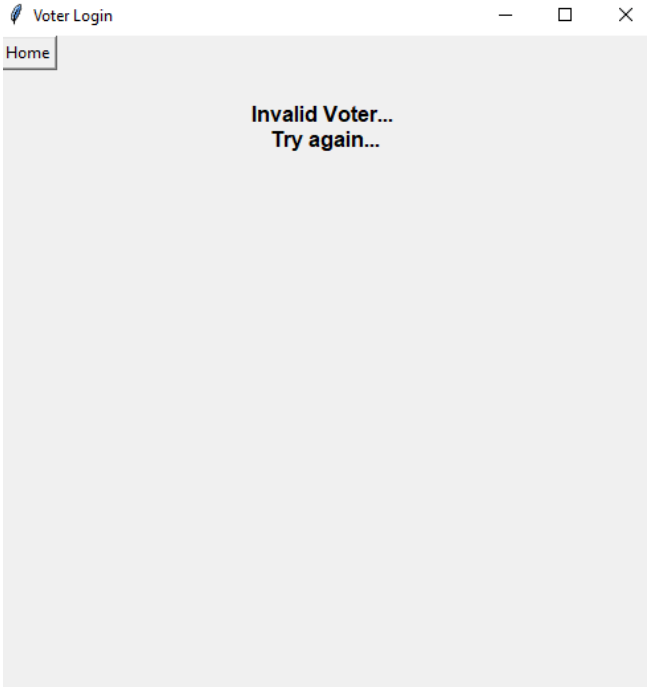
4. Press ‘Register Voter’ and enter details to register a new voter. Remember or note down the ‘Voter ID’ that you will receive on successful registration.





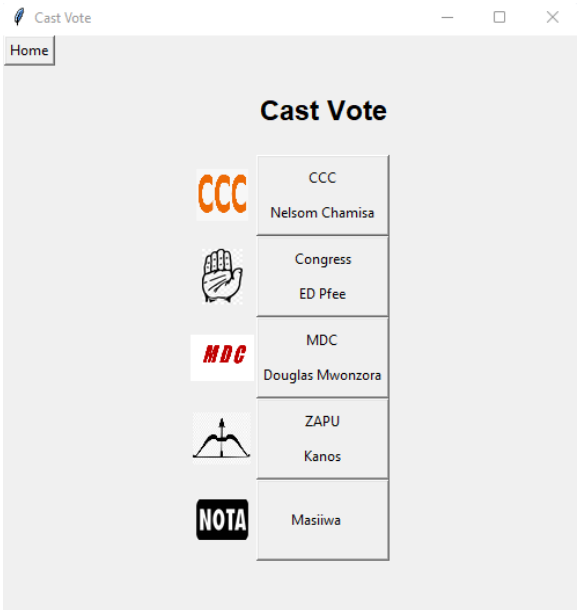
5. Press ‘Home’ to return to the Home. Now, press ‘Voter Login’ to open the voter login page.
6. Enter the login details and you are redirected to the Voting Page. You will receive an error message if the Voter is invalid or has already cast a vote.

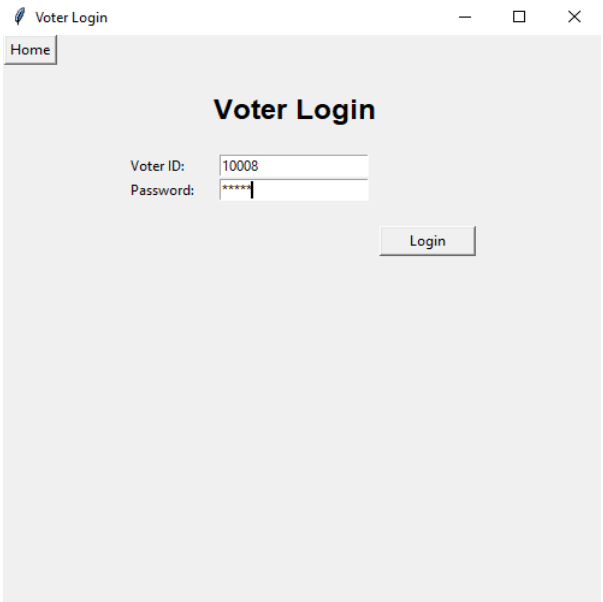


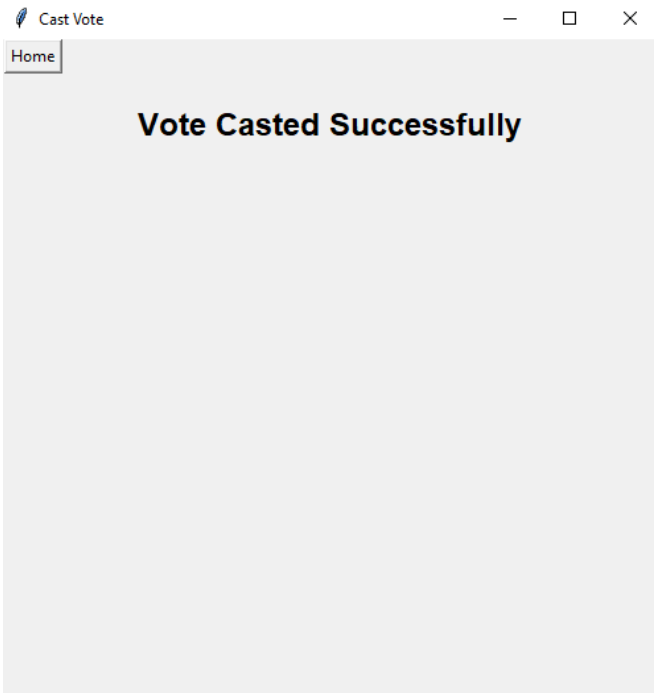


The above will show if you put the wrong details

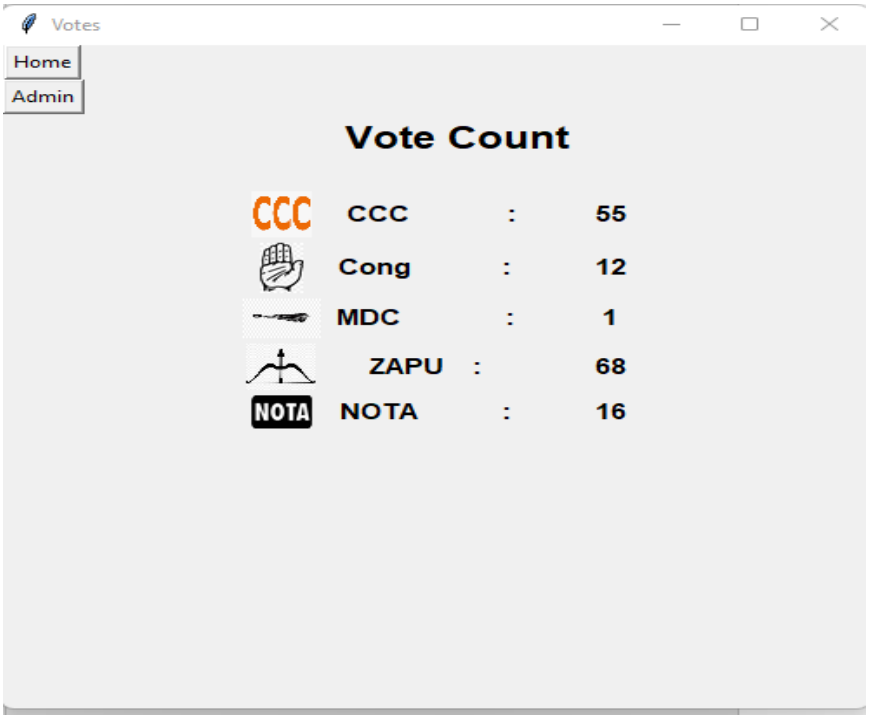
7. Cast a Vote. Now on receiving a success message, press home to return to home.



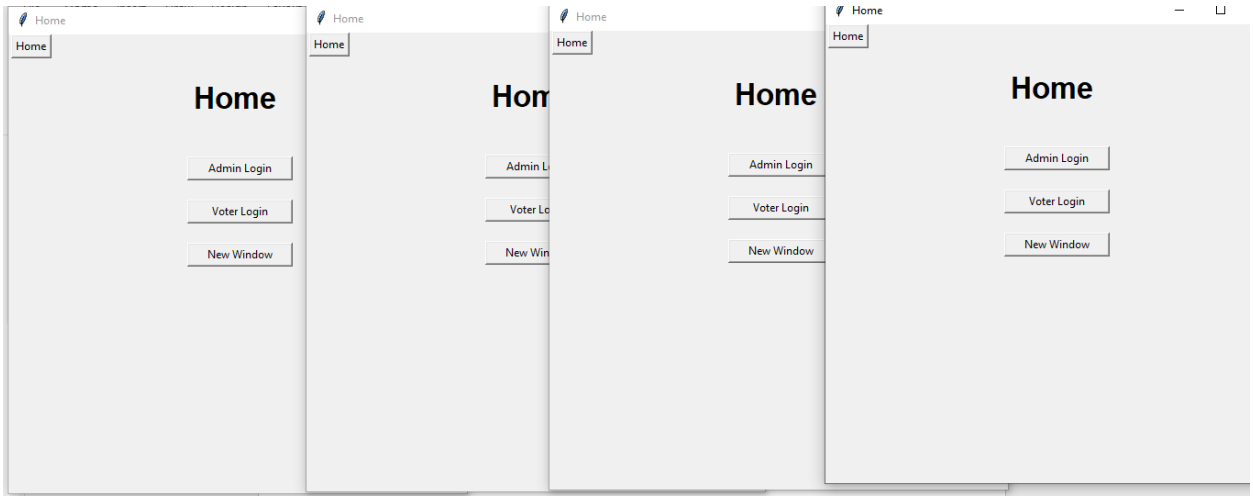




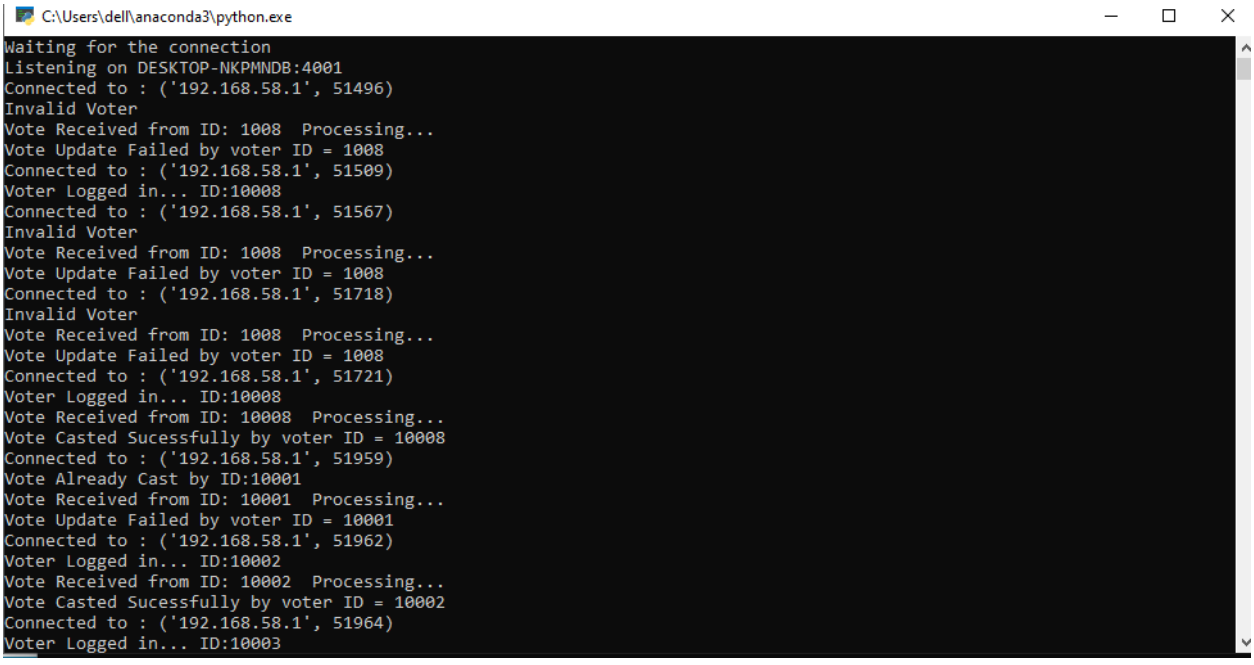
8. Login into Admin again. Press ‘Show Votes’ to check the votes that all parties have received so far.



9. Return to Home. You can press ‘New Window’ to open multiple pages and cast a vote concurrently from multiple voters.



Server Output



Databases

A. Candidate Information

		Sign	Name	Vote Count
2	0	ccc	Nelsom Cl	55
3	1	cong	ED Pfee	12
4	2	mdc	Douglas M	1
5	3	zapu	Kanos	68
6	4	nota	Masiiwa	16

B. Voter Information Database

		voter_id	Name	Gender	Zone	City	Passw	hasVoted
2	0	10001	Epenorch	Male	West	Bulawayo	abcd	1
3	1	10002	Nyasha	Male	South	Masvingo	abcd	1
4	2	10003	Samuel	Male	East	Harare	abcd	1
5	3	10004	Jonah	Male	East	Gweru	abcd	0
6	4	10005	Rachael	Female	North	Mutare	abcd	0
7	5	10006	Ropafadzo	Female	Harare	Harare	abcd	0
8	6	10007	Tanaka	Male	West	Beitbridge	abcd	1
9	7	10008	Percey	Male	West	Chimanim	abcd	1
10	8	10009	Hana	Female	Chivhu	Masvingo	abcd	1
11	9	10010	Gomo	Male	East	Bindura	abcd	0

8.0 Link to the Project on Github

https://github.com/epenorchg/Voter.git