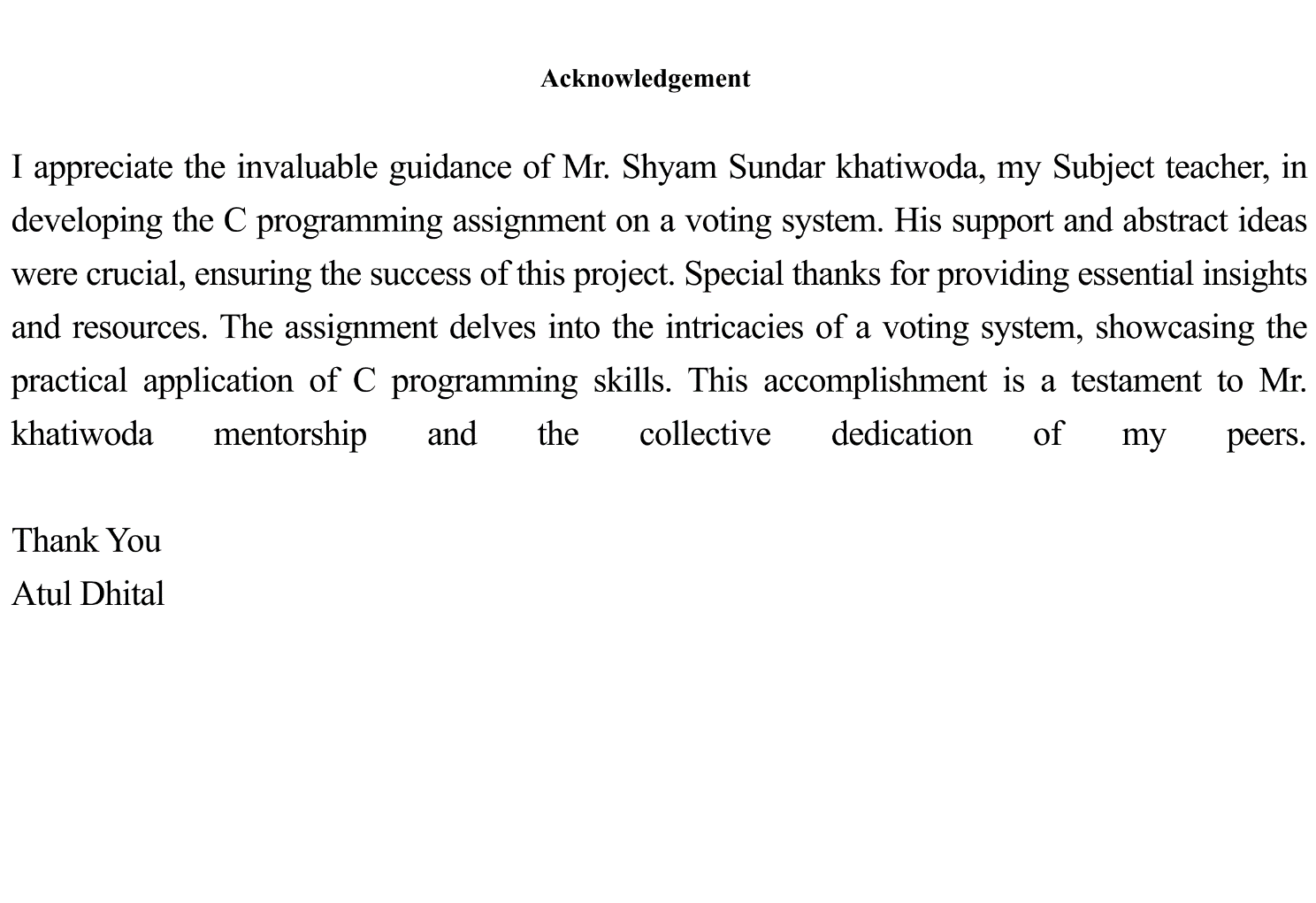


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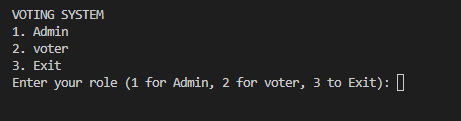
# Introduction:

C is a popular, simple, and adaptable universal language for programming. It is a machine-independent organized language for programming that is extensively used for developing apps, platforms like Windows, and an array of complicated programs such as the Python interpreter, Oracle database, and Git. C is said to as a programming language of the gods. One could say that computer programming is based on C. If you are familiar with C, you can readily comprehend other programming languages which use the C model (w3schools, n.d.).

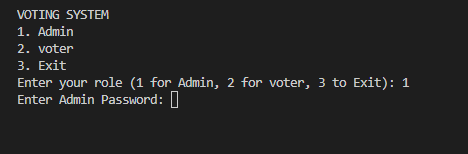
# Design:

The software is an Elections Management System (EMS) which allows users to finish an assortment of event-related duties. The primary menu has three options:

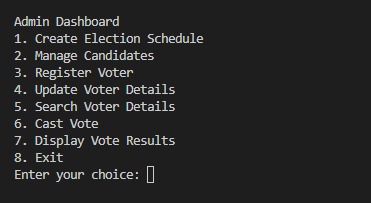
First we have a common interface for user or admin for when we run code:



## **Admin Login**

After running the program if user can choose option 1 then we need to enter passcode to access the admin panel   


After entering the correct passcode the user can able to access the feature of admin dashboard of voting system.



After getting access of admin side admin can do 7 tasks those are   
1. Create Election Schedule

2. Manage Candidates

3. Register Voter

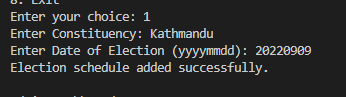
4. Update Voter Details

5. Search Voter Details

6. Cast Vote

7. Display Vote Results

### Create Election Schedule: If the admin choose the Create Election Schedule then, Admin can enter details about an electoral area and its election date.



After, creating election date admin can return to the admin dashboard.

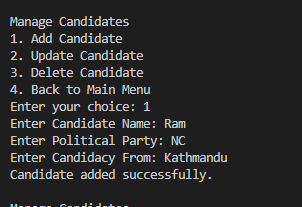
### Manage Candidates

After creating election admin can manage the candidates that is Add candidates to the candidate list, including their name, political party, and candidacy details. Also, admin can update and remove candidates from the list.

When admin choose manage candidates options there is 4 options that is

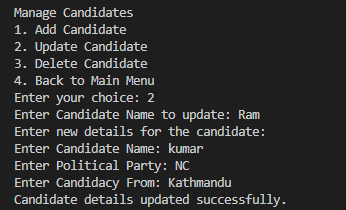
1. Add Candidate

After selecting 1 as the option for registering a candidate. Admin can add candidates for the election:   
where admin must input information about the candidates. Those are the name, party, and address.



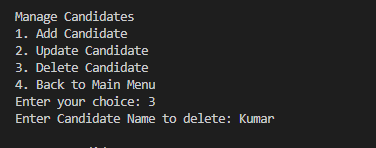
2. Update Candidate

If admin need to update candidates details admin should chose option 2 and enter name of the candidates:



3. Delete Candidate

If admin wants to delete the candidates, admin shoul choose option 3 and enter the name to delete the candidates:



4. Back to Main Menu

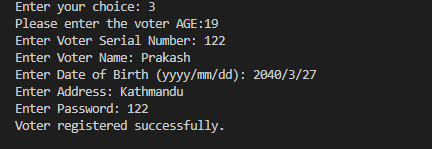
If admin wants to get back to main dashboard admin should choose option 4.

### Register Voter

Administrators can register new voters by providing their serial number, name, date of birth, address, and password. By checking that the voter is at least 18 years old.

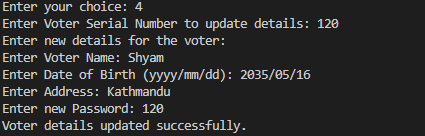
First admin will ask for age to ensure that voter was eligible for voting or not.

Then we need to enter serial number, Date of Birth, Address, and password of Voter.



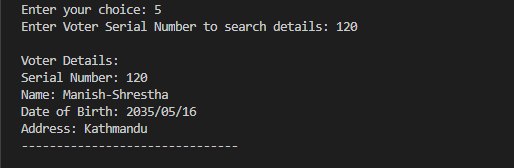
### Update Voter Details

Admin can update voter data by entering the serial number and updating the necessary information.



### Search voter Detail’s

Admin can search for and indicate details about a voter via the voter's serial number.



### Display vote results

Admin can publish the vote by entering number 7.



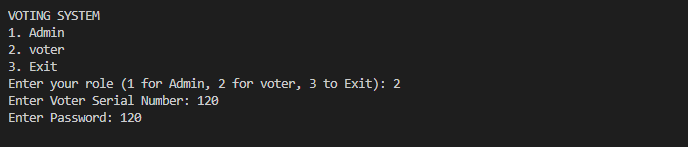
### Logout

The option 8 exit works as logout.

## **Voter Dashboard**

After running the program if user can choose option, then we need to enter passcode to access the voter panel:

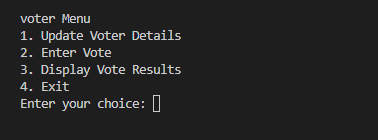
To access the voter we need to login first where we need to enter serial number and password that was provided by the admin.



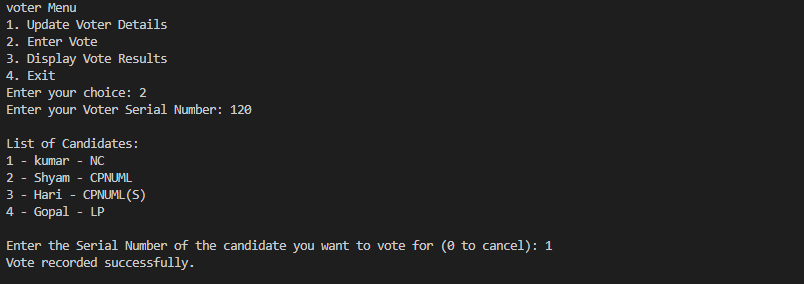
Voter can access the

1. voter can update the own details
2. Cast the vote
3. Display the results
4. Exit

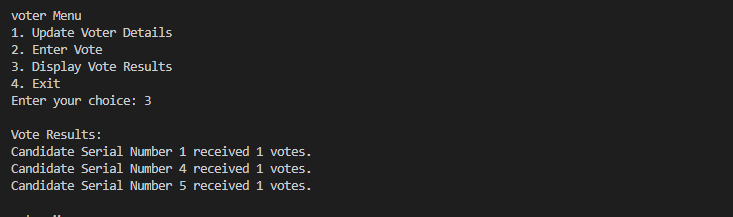
**2.2.1. Update voter details**

****

**2.2.2. Enter Vote**

****

**2.2.3. Display Vote**

****

When the user picks an option, the program asks for further information.

When a user picks the "Administrator Login" option, they must provide their username and password. Following a successful login, the program shows a menu with the following options: The user can pick an option by entering the right number.

If you make a wrong selection, the application will display an error notice. If a user chooses the voter registration option, the application prompts them to provide personal information such as their name, residence, age, and voter ID number. Details are kept in a file. When a user picks the "Vote" option, they are asked to provide their account and password.  
  
When a user picks a voting option, they are asked to provide their login and password.

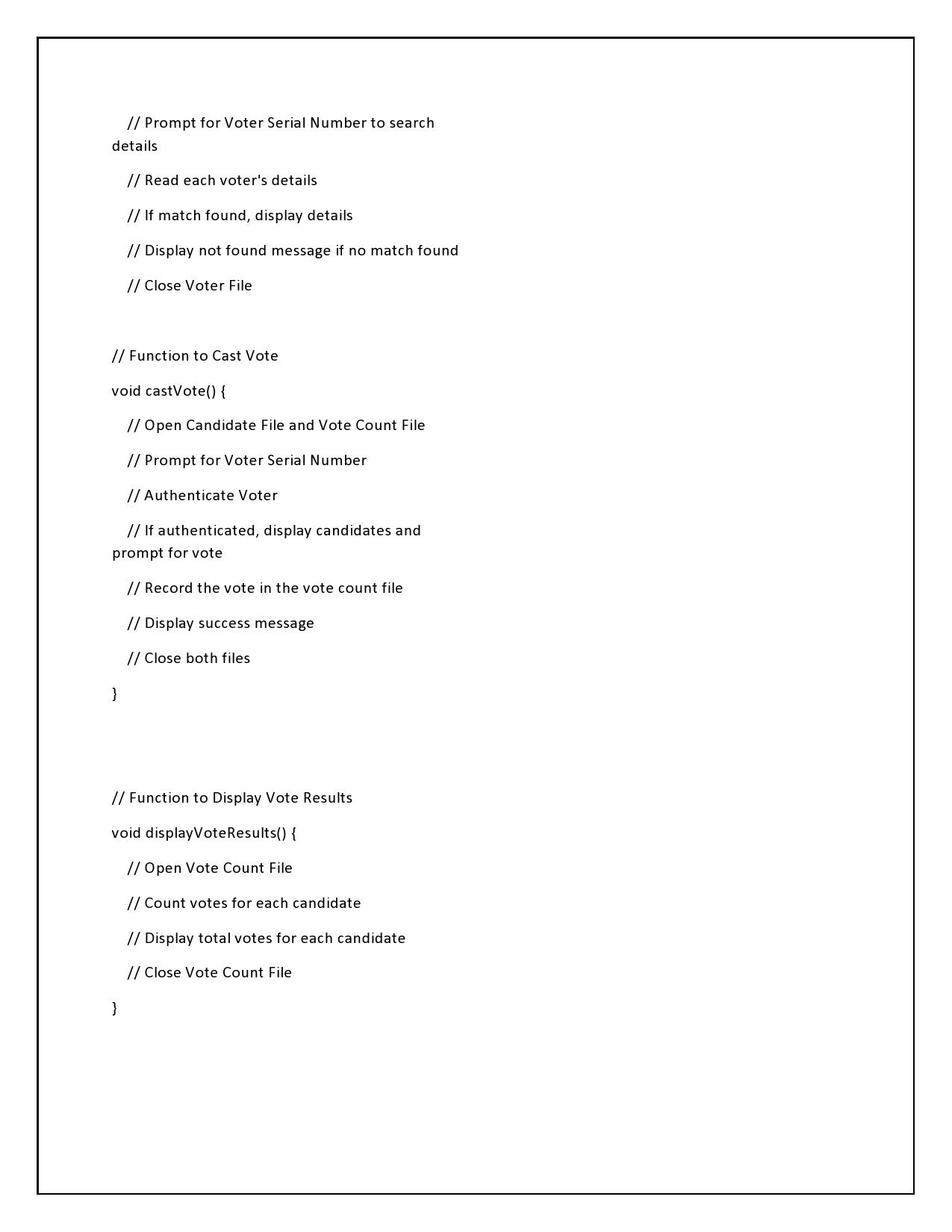
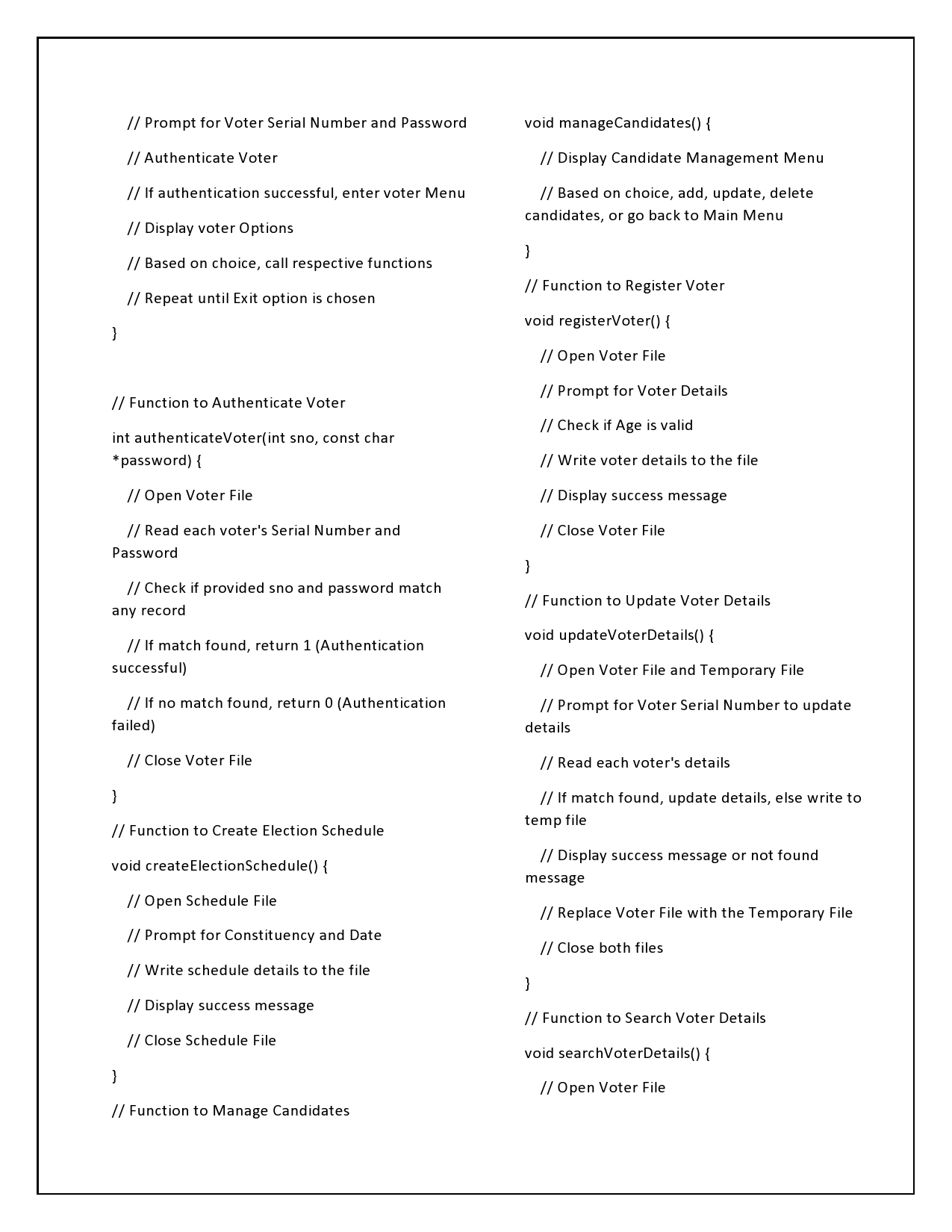
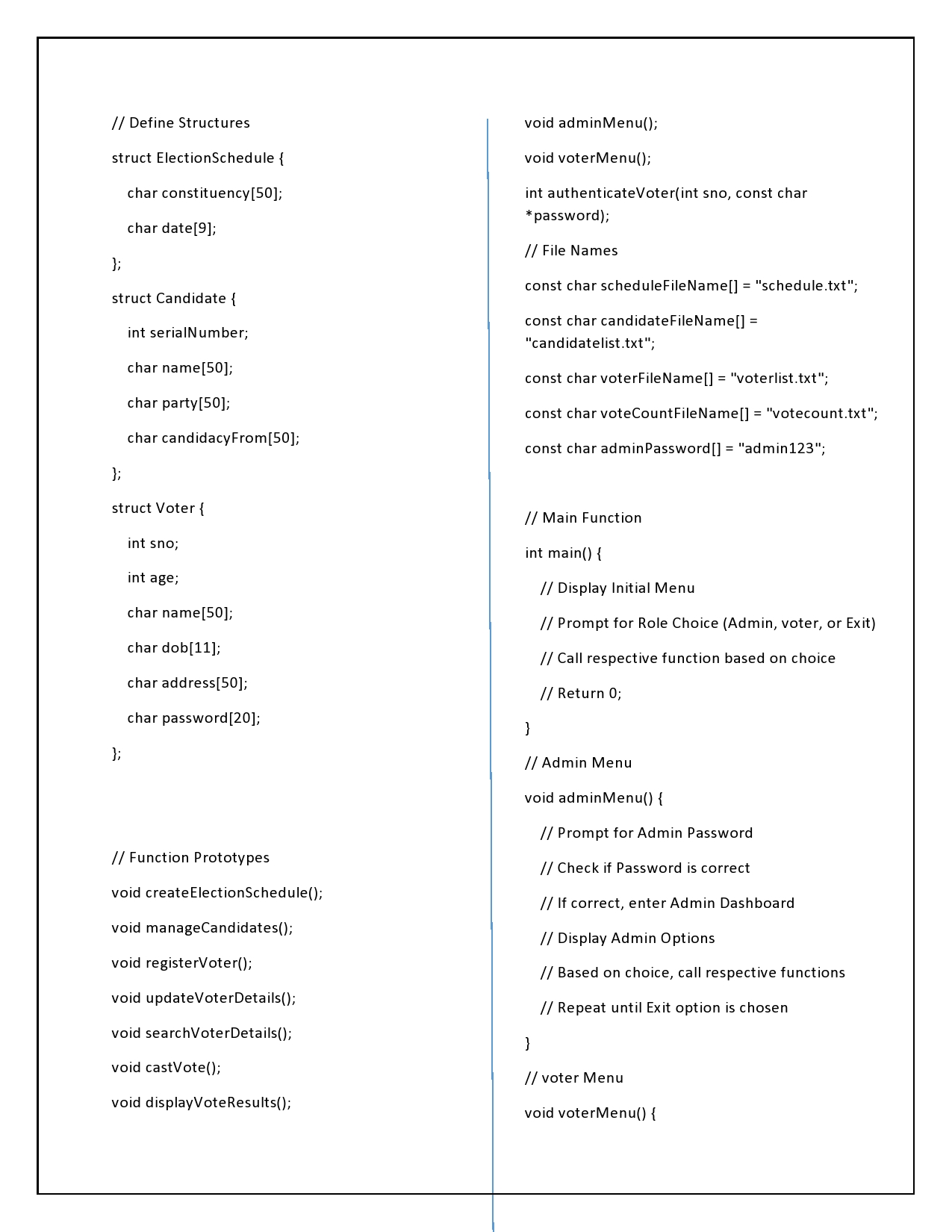
After registering successfully, the program provides a list of candidates from which the user can choose and vote.

When a vote is cast, the computer calculates the total number of votes for the chosen candidate. The application also offers tools for doing election-related tasks such as developing an election strategy, storing voter information in a file, reading voter information from a file, and so on.

Overall, the program's purpose is to provide a user-friendly interface for administering elections while ensuring fair and transparent outcomes.

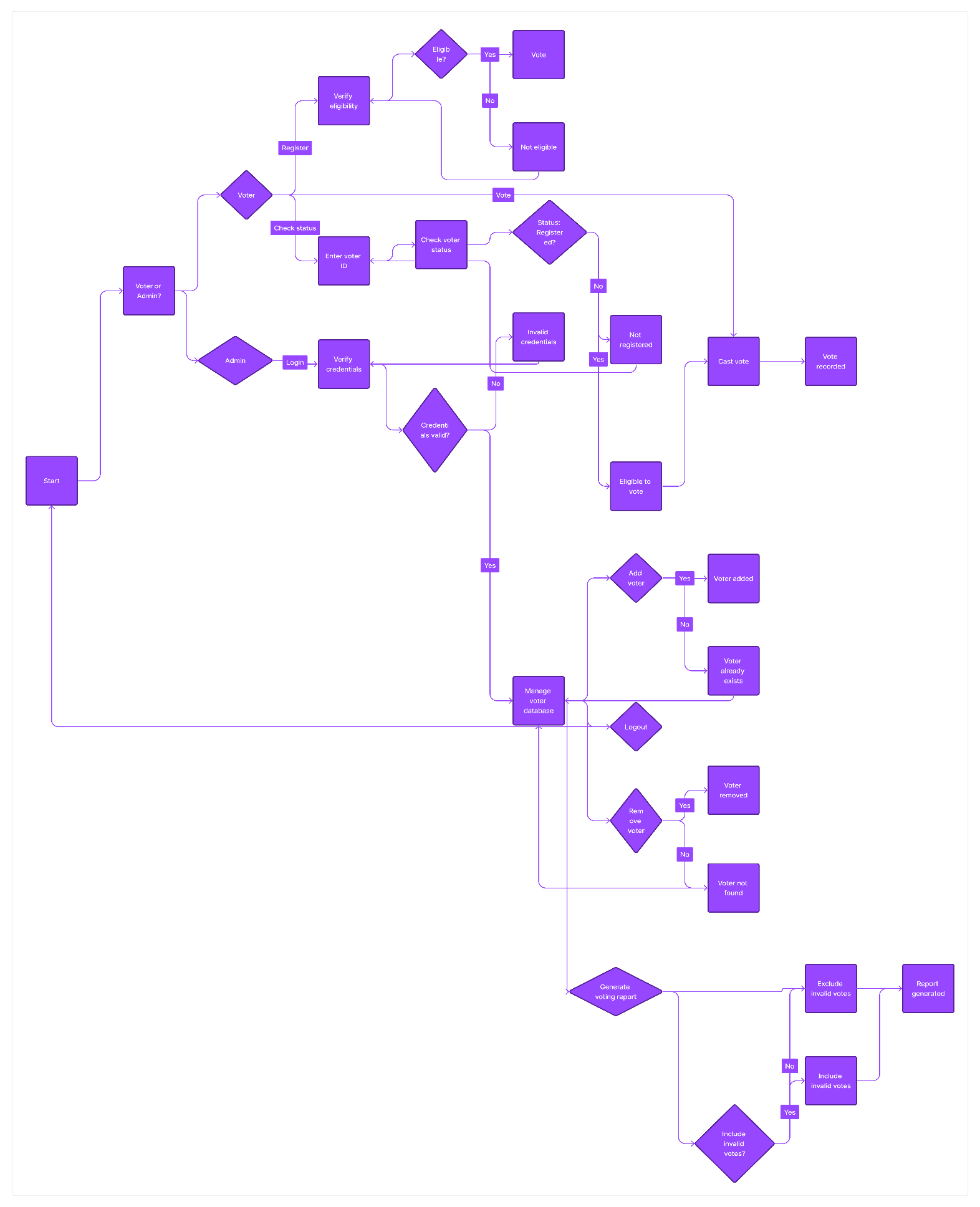
# Pseudocode:

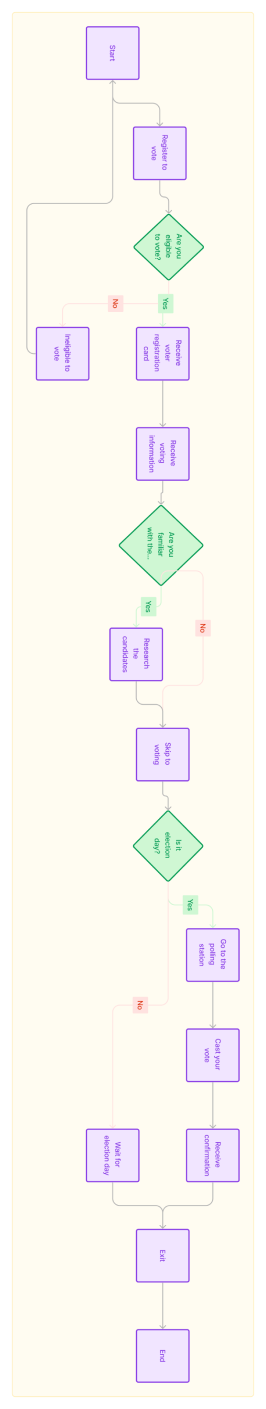
C supports the informal programming style known as pseudocode, which enhances human comprehension. Because it is written in plain English, the sophisticated program is made more understandable (geeksforgeeks, 2023).

Pseudocode can't be compiled or understood. It does not follow to the syntax of the programming language; hence, it is expressed in pseudocode to make it easy for both programmers and non-programmers to comprehend (wikihow, 2023).  


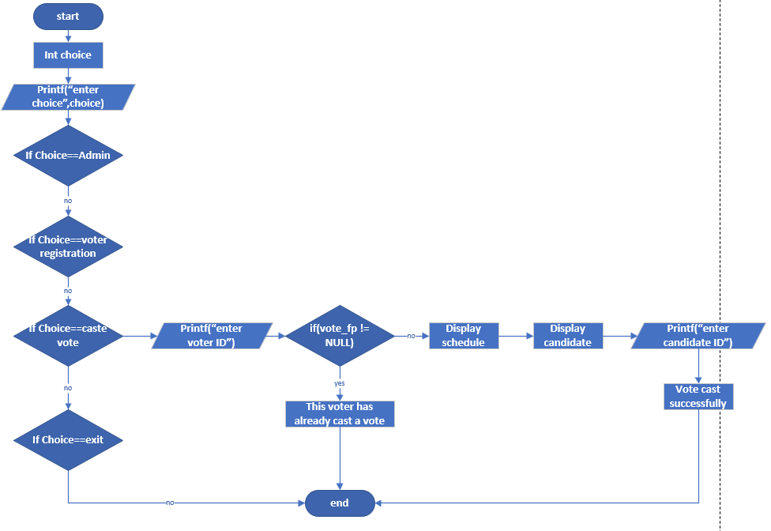
# Flowcharts:

Flowcharts are useful visual tools that assist programmers express algorithms or applications. Flowcharts, which show the processes, information flow, and interactions that occur within an algorithm or program, help programmers comprehend and assess complicated code structures. They are particularly useful when programmers need to view a program's logic and decision-making processes during the planning and debugging stages (zenflowchart, 2022).

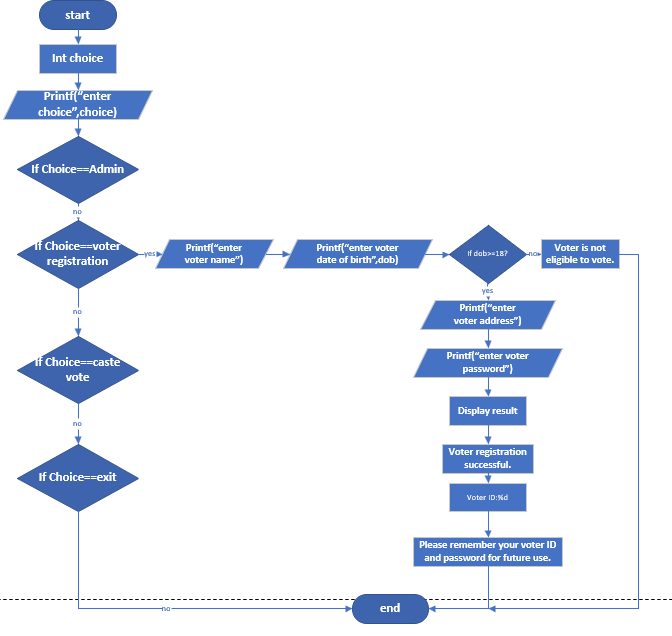
Aside from technical applications, flowcharts may help non-technical persons understand how a software works. Flowcharts, which use symbols and conventional language, let non-programmers comprehend how software works. A basic flowchart may include a number of symbols, such as start and end points, decision points, process stages, and links. Combining these symbols allows for the modelling of complicated decision trees, loops, and other program structures (programiz, 2021).  
  
Flowcharts serve to connect the technical and non-technical programming components of software development. They provide an example of the computer program's language and design, making it simpler to identify and fix issues, as well as communicating the fundamentals of programming to a larger audience.  
  
  
  
  




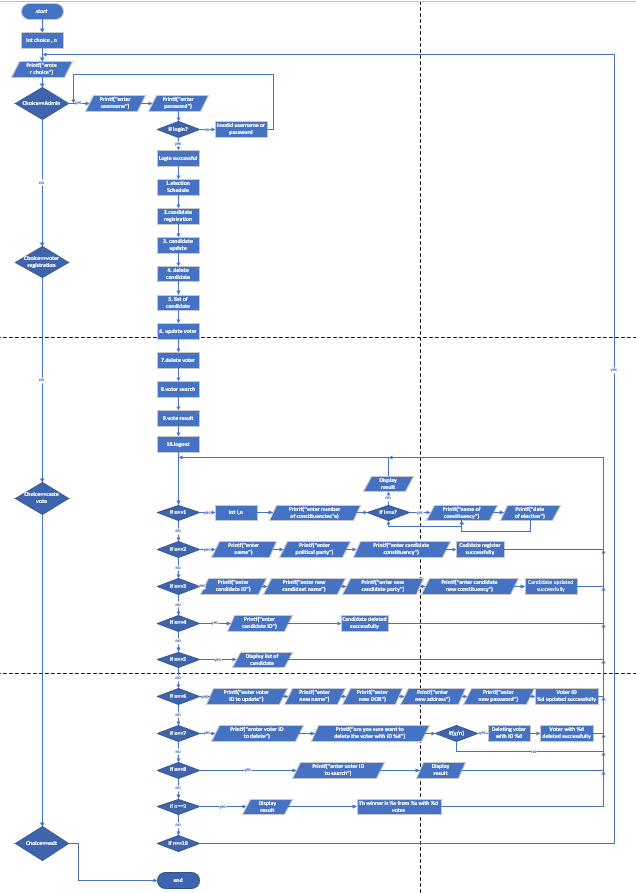
## **Candidate register:**



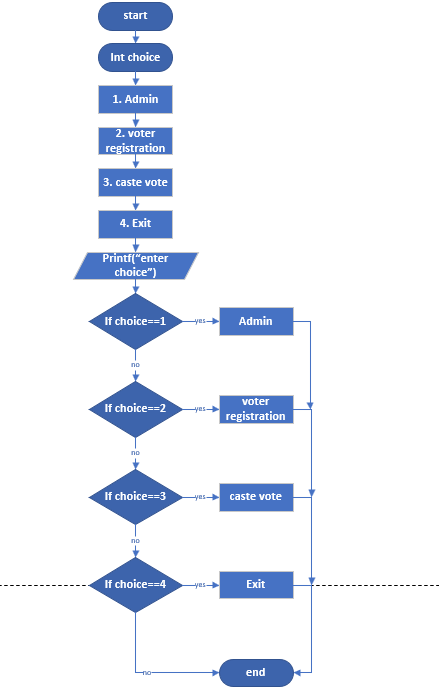
## Voter register:



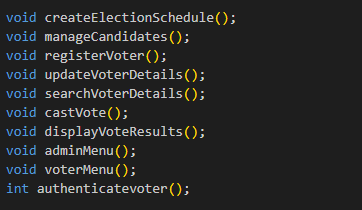
## Main function:



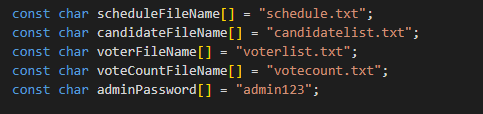
## Display panel:

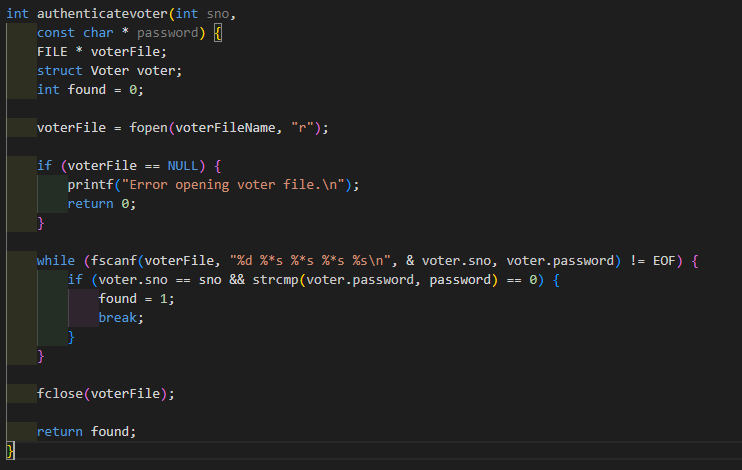


Implementation of Functions



File name Generate and admin password



Authentication for user login

Conclusion:

The system must be designed to facilitate the secure and efficient conduct of an election, incorporating essential features such as voter and candidate registration, online voting, and result generation. The system must also ensure that all data stored in text files is secure and protected from any potential breaches. In addition, the system should provide a reliable and trustworthy platform for conducting the election, with measures in place to prevent unauthorized access or tampering with the data. Overall, the system should prioritize the integrity and confidentiality of the election process to ensure a fair and accurate outcome.

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