

Digital Voting System

Introduction

Voting is one of the most important activities in our daily life. Traditional voting systems are slow and sometimes create confusion. To make the process easier, I built a small Digital Voting System using Data Structures. This system is simple but shows how technology can make voting fair and transparent.

Objectives

- Store candidates and their votes.
- Manage the line of voters.
- Keep history of votes for undo option.
- Find the winner in a clear way.

Data Structures Used

- 1. Array \rightarrow to store candidates and their vote counts.
- 2. **Queue** \rightarrow to manage the line of voters.
- 3. **Stack** \rightarrow to store vote history and undo last vote.
- 4. Linked List \rightarrow to store the winner list.

Functionalities of the Project

- Add voters into a queue.
- Cast vote for a candidate.
- Show live results of the election.
- Undo the last vote using stack.
- Declare the winner and store it in a linked list.

Impact in Real Life

- Makes the voting process faster and fair.
- Helps in organizing elections for schools, colleges, clubs, and small communities.
- Reduces errors compared to manual voting.

Conclusion

This project is a small example of how Data Structures can be used to solve real-life problems. By combining Array, Queue, Stack, and Linked List, we can build a simple but effective Digital Voting System. In the future, this idea can be expanded to larger systems for real elections.