Voting System Project Report

Project Title: Voting System [Team – 13]

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Abstract

This project demonstrates the creation of a basic Voting System using C programming language. The system is designed to: secure access with a password, allow voting for 5 candidates, and display the results of the voting. The project focuses on fundamental concepts like arrays, loops, string comparison, and conditional statements.

Introduction

Voting is an essential process in any democracy. Through this project, a basic electronic voting system is simulated where users can vote securely after entering a password. This system ensures that voting is simple and secure for basic demonstration purposes.

Objective

- To create a secure, user-friendly voting system using C.  
- To apply C programming concepts like strings, arrays, and control statements.  
- To ensure only authorized access using a basic password mechanism.

Software & Hardware Requirements

Software:  
- GCC Compiler (MinGW / CodeBlocks / Turbo C / Online GBD)  
- Text Editor (Notepad / VS Code / DEV C++)  
  
Hardware:  
- Any standard PC or Laptop  
- Windows/Linux Operating System

System Design

Flow:  
1. Enter Password → If correct → Show Menu  
2. Choose Candidate (1-5) to vote  
3. Option to Show Results or Exit  
4. Invalid entries are handled properly.  
  
Security:

- Simple password check using strcmp() function.

Code Explanation

- Password Check: Compares user input with stored password using strcmp().  
- Candidates: Names stored in a 2D array.  
- Votes: Votes are recorded in an integer array.  
- Menu Driven: Using loops and conditions to offer voting or showing results.

Output

Login Page: Prompt for password  
Voting Menu: List of candidates  
Results: Display each candidate's votes  
Example Output:

Enter password to access voting system: 12345

---------- Voting System ----------

Please vote for your candidate:

1. candidate 1

2. candidate 2

3. candidate 3

4. candidate 4

5. candidate 5

6. Show Results

7. Exit

Enter your choice (1-7): 5

Thank you for voting!

---------- Voting System ----------

Please vote for your candidate:

1. candidate 1

2. candidate 2

3. candidate 3

4. candidate 4

5. candidate 5

6. Show Results

7. Exit

Enter your choice (1-7): 6

---------- Voting Results ----------

candidate 1: 0 votes

candidate 2: 0 votes

candidate 3: 0 votes

candidate 4: 0 votes

candidate 5: 1 votes

---------- Voting System ----------

Please vote for your candidate:

1. candidate 1

2. candidate 2

3. candidate 3

4. candidate 4

5. candidate 5

6. Show Results

7. Exit

Enter your choice (1-7): 7

Exiting the voting system. Goodbye!

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Process exited after 10.23 seconds with return value 0

Press any key to continue . . .

Conclusion

This project successfully simulates a simple Voting System with basic security and functionality. It enhances understanding of real-world applications using C programming concepts.

Future Scope

- Adding authentication for multiple users.  
- Preventing double voting.  
- Implementing a graphical user interface (GUI).  
- Adding a database to store votes persistently.

References

- C Programming Language by E. Balagurusamy  
- Online resources and tutorials on C programming  
- MinGW GCC Compiler Documentation

Acknowledgment

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Thank You…