PROJECT: Voting System

Submitted to

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Introduction

The Voting System Project is a Java-based program that allows users to simulate an election and calculate the results based on the votes cast by the voters. The program prompts the user to enter the total number of voters and then asks them to select an option representing a political party to cast their vote. The program keeps track of the votes cast for each party and calculates the percentage of votes received by each party. Finally, the program displays the result of the election showing the percentage of votes received by each political party.

Code Analysis

The code is written in Java and follows object-oriented programming principles. It consists of a single class named "vote" that contains float variables to represent the votes received by different political parties, including BJP, INC, AAP, BSP, CPI, NPP, and Others. The "result" method is responsible for calculating the result of the election based on the votes cast by the voters. It takes the total number of voters and an array of votes as input parameters. The "main" method is the entry point of the program. It prompts the user to enter the total number of voters and then uses a loop to collect the votes from each voter by displaying the available options for different political parties. The votes are stored in an array. Finally, the "result" method is called to calculate and display the result of the election. The code uses a switch statement to determine the political party corresponding to the vote cast by the voter and increments the vote count for that party accordingly. The percentage of votes received by each party is calculated by dividing the vote count by the total number of voters and multiplying by 100. The result is displayed in the console using the "System.out.println" statements.

Source code

```
import java.io.FileWriter;
import java.io.IOException;
import java.util.Scanner;

public class Vote {
    float BJP; // Bharatiya Janata Party (BJP)
    float INC; // Indian National congress (INC)
    float AAP; // Aam aadmi party(AAP)
    float BSP; // Bahujan Samaj Party (BSP)
    float CPI; // Communist Party of India (CPI)
    float NPP; // National People's Party (NPP)
    float Others;

    static void result(int TotalVoters, int[] arr) throws IOException {
        // object
        Vote v = new Vote();
        float percent = 100 / TotalVoters;
        v.BJP = v.INC = v.AAP = v.BSP = v.CPI = v.NPP = v.Others = 0;
        for (int i = 0; i < TotalVoters; i++) {
            switch (arr[i]) {
                case 1:
                    (v.BJP)++;
                    break;
                case 2:
```

```
                    (v.INC)++;
                    break;
                case 3:
                    (v.AAP)++;
                    break;
                case 4:
                    (v.BSP)++;
                    break;
                case 5:
                    (v.CPI)++;
                    break;
                case 6:
                    (v.NPP)++;
                    break;
                case 7:
                    (v.Others)++;
                    break;
            }
        }

        FileWriter fw = new FileWriter("result.txt"); // FileWriter to
write the result to a file

        fw.write("\n\n");
        fw.write("\tResult of election\n");
        fw.write("BJP --> " + v.BJP * percent + "%\n");
        fw.write("INC --> " + v.INC * percent + "%\n");
        fw.write("AAP --> " + v.AAP * percent + "%\n");
        fw.write("BSP --> " + v.BSP * percent + "%\n");
        fw.write("CPI --> " + v.CPI * percent + "%\n");
        fw.write("NPP --> " + v.NPP * percent + "%\n");
        fw.write("Others --> " + v.Others * percent + "%\n");
        fw.write("\n\n");

        fw.close(); // FileWriter close

        System.out.println("Result has been saved to result.txt file.");
    }

    public static void main(String args[]) throws IOException {
        System.out.println("Voting System Project");
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter total number of voters");
        int totalVoters = sc.nextInt();
        int arr[] = new int[totalVoters]; // store the result of selected
option by the user
        for (int i = 0; i < totalVoters; i++) {
            System.out.println("\n");
            System.out.println("Select any one option");
            System.out.println("1 --> for BJP: ");
            System.out.println("2 --> for INC: ");
            System.out.println("3 --> for AAP: ");
            System.out.println("4 --> for BSP: ");
            System.out.println("5 --> for CPI: ");
            System.out.println("6 --> for NPP: ");
            System.out.println("7 --> for Others: ");
            arr[i] = sc.nextInt();
        }
        result(totalVoters, arr);
    }
}
```

Example of source code output

Result store in file “result.txt”

```
    Result of election
BJP --> 0.0%
INC --> 12.0%
AAP --> 24.0%
BSP --> 12.0%
CPI --> 24.0%
NPP --> 0.0%
Others --> 12.0%
```

Conclusion

The Voting System Project is a simple Java program that simulates an election and calculates the result based on the votes cast by the voters. It provides a basic understanding of Java programming concept.