Nicholas Grogg

Dr. Edwards

CS151

**Program 2: Part 1 & 2**

**Part 1**

Mayoral Election

|  |  |  |
| --- | --- | --- |
| Choice | Number of Votes | Percentage |
| Rob Ford | 2 | 40 |
| Billy Kenoi | 3 | 60 |

County Council

|  |  |  |
| --- | --- | --- |
| Choice | Number of Votes | Percentage |
| Valerie T. Poindexter | 2 | 40 |
| Aaron Chung | 2 | 40 |
| Jen Ruggles | 1 | 20 |

Proposition 17

|  |  |  |
| --- | --- | --- |
| Choice | Number of Votes | Percentage |
| Yes | 2 | 60 |
| No | 3 | 40 |

Measure 1

|  |  |  |
| --- | --- | --- |
| Choice | Number of Votes | Percentage |
| Yes | 3 | 60 |
| No | 2 | 40 |

Measure 2

|  |  |  |
| --- | --- | --- |
| Choice | Number of Votes | Percentage |
| Yes | 3 | 60 |
| No | 2 | 40 |

**Part 2**

**Understanding the Program**

Structure of program

Program start

read ballot data in, use first line to create class dynamic array

While loop to create constructors from result data

Instantiate constructor for User

Create dynamic array for user ballot

user enters votes for ballot

Program calculates results and returns them as decimals.

Delete dynamic arrays

Program end

**Program Functions and variables**

**Classes**

Program will have one class called VOTER for storing the functions

Program will have a struct for the overloaded = operator

**Variables**

Dynamic array for storing read in data.

Voter ID variable

size variable for dynamic array

**Major Functions**

Constructor, creates the dynamic array

Overloaded constructor, used to create other voter dynamic arrays

Copy Constructor

Destructor to delete dynamic array

Accessors, an accessor to return array data

Mutators, mutator to add data to array

Overloaded = operator in a struct

**Algorithms**

In stream for reading in ballot data file, end when getline = 0

In stream for reading in result files to classes

Out stream for outputting the results of the ballot

Function to calculate ballot results