

```
1  #include <cs50.h>
2  #include <stdio.h>
3  #include <string.h>
4
5  // Max number of candidates
6  #define MAX 9
7
8  // Candidates have name and vote count
9  typedef struct
10 {
11     string name;
12     int votes;
13 }
14 candidate;
15
16 // Array of candidates
17 candidate candidates[MAX];
18
19 // Number of candidates
20 int candidate_count;
21
22 // Function prototypes
23 bool vote(string name);
24 void print_winner(void);
25
26 int main(int argc, string argv[])
27 {
28     // Check for invalid usage
29     if (argc < 2)
30     {
31         printf("Usage: plurality [candidate ...]\n");
32         return 1;
33     }
34
35     // Populate array of candidates
36     candidate_count = argc - 1;
37     if (candidate_count > MAX)
38     {
39         printf("Maximum number of candidates is %i\n", MAX);
40         return 2;
41     }
42     for (int i = 0; i < candidate_count; i++)
```

```
43     {
44         candidates[i].name = argv[i + 1];
45         candidates[i].votes = 0;
46     }
47
48     int voter_count = get_int("Number of voters: ");
49
50     // Loop over all voters
51     for (int i = 0; i < voter_count; i++)
52     {
53         string name = get_string("Vote: ");
54
55         // Check for invalid vote
56         if (!vote(name))
57         {
58             printf("Invalid vote.\n");
59         }
60     }
61
62     // Display winner of election
63     print_winner();
64 }
65
66 // Update vote totals given a new vote
67 bool vote(string name)
68 {
69     // TODO
70     return false;
71 }
72
73 // Print the winner (or winners) of the election
74 void print_winner(void)
75 {
76     // TODO
77     return;
78 }
```