

Many web sites and other online media have polls where visitors can vote on a daily topic. Create two C++ programs, a voter program and a results program, that will conduct a poll and display the results.

The first program (voter) will read in the ballot setup from a file, prompt the user to cast their vote, and then record the vote in a file. The first program uses two files. The first file is the ballot setup and it contains exactly three lines of text. The first line is the poll topic. The second line is the first option and the third line is the second option. The example below shows a sample ballot.txt file.

```
Best sandwich
Peanut butter and jelly
Ham and cheese
```

The second file used by the voter program records votes. This votes file should record each vote cast. For example, using the sample ballot shown above, a vote would be either 1 or 2 where one represents a vote for peanut butter and jelly sandwiches (the first option) and 2 represents a vote for ham and cheese sandwiches (the second option). Only the option number the voter selected should be recorded in the votes file. For example if seven different voters each cast a vote, five for peanut butter and jelly and two for ham and cheese, the example below shows the sample votes.txt file after all seven votes.

```
1
1
2
1
2
1
1
```

The second program (results) will use the same ballot file and votes file described above. It will use these files as input to display the results of the poll. The output should display a heading with the poll topic, the number of votes for each option with the option text, and the winning option with the percentage of winning votes. If the vote is a tie the last line of output should say "Tie Vote!". The example below shows the output of the results program for the example files shown above.

```
Election results from vote on Best sandwich
5      votes for Peanut butter and jelly
2      votes for Ham and cheese
Winner: Peanut butter and jelly with 71.4%
```

Note, the winning percentage should be displayed with one digit after the decimal.

**Due date:** Wednesday 16th before 11:59 p.m.

**How to submit:**

Submit your .cpp files and (formal) design document (DOCX or PDF) to Canvas. Do NOT ZIP the files together. Submit each file separately.