Universal Definition of Done: Runs on CSE Labs machine.

User Story 1:

As an election official, I want ties to be handled fairly so the decision is unbiased when running an OPL election.

AC: Ties in OPL are decided <u>randomly.</u>

Done: Tested, documentation done, source code updated to reflect this change, reviewed and

refactored.

Effort: Small (30 minutes)

User Story 2:

As an election official, I want the program to run smoothly because I don't know how to handle program crashes.

AC: On any input the program exits gracefully, notifying the user of any error in layman's terms.

Done: Tested, documents, and source code updated to reflect this change, reviewed and

refactored.

Effort: Small

EPIC: User Story 3:

As an election official, I want to process elections with the MPO algorithm because the S.O.S. said the program needs to handle this type of voting system.

AC: The program can process election files and declare winners with MPO

Done: Implemented, tested, documented, reviewed and refactored.

Effort: XL

User Story 3.1:

As an election official, I need ties between candidates to be broken by a coin toss so that the election is fair and accurate.

AC: The coin toss leads to each candidate winning the given seat an even amount of time.

Done: Implemented, tested, documented, reviewed and refactored

Effort: S

User Story 3.2:

As an election official, I want to choose the winner(s) based upon who has received the most votes because the Secretary of State has decided this is a fair way to choose winners.

AC: The winner(s) is/are chosen based upon who received the most votes in one round. The program can be run on CSE lab machines.

Done: Implemented, tested, documented, reviewed and refactored.

Effort: M

User Story 3.3:

As an election official, I need the program to be able to handle files of the MPO type so that the system can process the results automatically.

AC: File is read in and processes all election information and assigns ballots to candidates.

Done: Implemented, tested, documented, reviewed and refactored.

Effort: S

User Story 3.4:

As an election official, I need the stats from the MPO election to be outputted to the screen once the election is decided.

AC: Each candidate has their statistics displayed to the screen upon completion of the election. Can run on CSELabs machines.

Done: Implemented, tested, and documented.

Effort: Small

User Story 7:

As an election official, I want ballots with less than half of the candidates ranked in an IRV election to be discounted and noted in a file.

AC: Program invalidates ballots with less than half of the candidates ranked and reports which ballots were invalidated to the audit file.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Medium

EPIC User Story 4

As an election official, I want to be able to click on the files so that the process is simple and straightforward.

AC: The program shows the user a GUI when prompting for the file(s) to be used in the election.

Done: Implemented, tested, documented, reviewed and refactored.

Effort: XL

User Story 4.1:

As an election official, I want a window to pop up with all available election files that I can choose, so I can select them easily.

AC: GUI window displays all .csv files in working directory

Done: Implemented, tested, documented, reviewed and refactored.

Effort: M

User Story 4.2:

As an election official, I want the files I click on to be selected for the program to use so that the program responds to my choices.

AC: GUI window responds to user interaction, files that are clicked on are highlighted and selected for running the election.

Done: Implemented, tested, documented, reviewed and refactored.

Effort: S

User Story 4.3:

As an election official, I want to click on a "Run" button to run the program with all of the files I have selected so that the program runs simply.

AC: GUI window has a "Run" button that when clicked, starts program execution with all files selected. If no files are selected, it shows in red text "Please Select a File" until the user either runs with >= 1 files selected or cancels the program's execution.

Done: Implemented, tested, documented, reviewed and refactored.

Effort: S/M

User Story 5:

As an election official, I want to run an election with ballots from multiple voting centers, so that we don't have to hire someone to manually add all ballots to one file.

AC: The program accepts multiple filenames and correctly creates ballots from all files.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Medium

User Story 6:

As an election official, I want results from the election to be displayed to me immediately.

AC: Program outputs winners/seats/percentages to the screen.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Small

EPIC: User Story 8:

As an election official, I want a table to be displayed after the election that shows the number of votes each candidate has after each round of the IRV election.

AC: The program correctly creates a table, which is made available to the user.

Done: Implemented, tested, documented, reviewed and refactored

Effort: XL

User Story 8.1:

As an election official, I want a table displaying each candidate and their party displayed.

AC: Program displays a table with each candidate listed.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Small

User Story 8.2:

As an election official, I want to see each round of votes the candidates were given from the ballots.

AC: Program opens a table of a list of candidates and all the votes they received each round.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Small

User Story 8.3:

As an election official, I want the amount of votes added and subtracted for each candidate displayed next to their names in a table.

AC: Votes per candidate that are added/subtracted are displayed per round next to the candidate name in a table.

Done: Implemented, tested, documented, reviewed and refactored

Effort: Medium