

User Story #1

As a user, I want the ability to run a fair OPL and CPL election in all tie cases.

Acceptance Criteria

- The ability to handle ties between 3 or more candidates
- Be able to run a fair OPL and CPL Election
- Everything is well tested and validated

Definition of Done

- Passes tie OPL and CPL tests
- Coin flip error is fixed (can fairly determine the winner of 3 or more way tie)
- No Runtime errors occur

User Story #2

As a user, I want the ability to log an accurate audit file to verify the validity of the election.

Acceptance Criteria

- The ability to log an audit file
- Audit file is accurate to the election run
- Everything is well tested and validated

Definition of Done

- Audit error is fixed (can log audit file without errors)
- Passes Audit and Election Driver tests
- Passes System test
- No runtime errors occur

User Story #3

As a user, I would like a way to search through my computer's files using a graphical interface to find the file that I want to run on this program

Acceptance Criteria

- The user has a graphical way to be able to search through their files.
- The users selected file is now set to be the one to run on the system
- The graphical interface has been thoroughly tested and validated

Definition of Done

- No errors occur from the user entering a file
- The system runs as normal now with the new way of entering a file using the graphical way.

User story #5

As an election official, I would like to be able to name audit files and specify where these files are stored. I would like to be able to do this using a graphical interface.

Acceptance Criteria

- User is able to input the name of the audit file using a graphical interface
- User is able to select the location of where to store the file using a graphical interface
- The graphical interface, input, and selection has been thoroughly tested and validated

Definition of Done

- No errors occur from the user entering a file name or location
- The audit file saves to the specified location and has the inputted name
- Audit file is complete and working without bugs
- Inputting file name with the GUI and specifying the location works as specified without bugs

User story #6

As an election official, I want the ability to input ballots using a graphical interface in addition to the CSV file. I want the option as to how I will be inputting the ballots, and I want prompts as to what information I need to input when I choose to do it manually. I want to choose when I am done entering ballots.

Acceptance Criteria

- User is able to manually input ballots using a GUI
- User is able to tell the program when they are done entering ballots
- Users are given prompts to enter election information such as type of election, candidates, etc.
- GUI and input are thoroughly tested and validated

Definition of Done

- Manually entered ballots are correctly counted for CPL and OPL elections
- Manually entered election information is accurately prompted and saves to the correct location within the code
- Input, election, and ballot code is tested and validated to be bug free
- System runs as specified (no errors, fair election)

User story #7

As an election official, I want the system to be able to handle at least 500,000 ballots within a file in a timely manner.

Acceptance Criteria

- 500,000 ballots can be counted and results returned in less than 5 minutes from when the file is inputted/manual input is finished
- Election results are fair and accurate
- Ballot counting is thoroughly tested and bug free

Definition of Done

- Ballot counting has been tested and guaranteed to return results in under 5 minutes
- System runs without bugs/errors
- Election results are fair and accurate

User story #8

As an election official, I want the system to provide a short report in addition to the audit file that contains overall election information.

Acceptance Criteria

- Additional output report is created and contains the date, type of election, candidates and their parties, number of seats, and winners of the election
- Report is consistent with the audit and has been thoroughly tested

Definition of Done

- Short report file is created and gets stored in current directory (or audit location if that task is complete)
- Report file data is consistent with audit
- Report file creation and data generation/output has been tested in a variety of election cases with both types, and is verified to work correctly