

Team 25

Product Backlog

Name (s): Ashton Berg (ber00036), Caleb Tracy (tracy255), Elias Caceres (cacer019), Garrett Abou-Zeid (abouz009)

Date: (04/13/2023)

1.

As an election official I want to be able to use CSV files So that they can be processed in an PO election.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Can select a CSV ballot file to run a PO election.
Definition of Done (what is required by the team before sending out for review) 1. Ability to select desired CSV to be processed 2. Runs a PO election with the file.
Effort: Medium
PBI Author(s): Elias Caceres

2.

As an election official I want to be able to run a Popularity Only (PO) So that I can determine the winner of a PO election.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Have the ability to run a PO election in the software.
Definition of Done (what is required by the team before sending out for review) 1. Implement PO processing 2. Detect and run PO elections from selected files chosen by election officials.
Effort: Extra Large
PBI Author(s): Elias Caceres

3.

As an election official I want to be able to see the statistics, and percentage of votes on my screen So that I can view them during the PO election processing.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. I can see the stats displayed on the screen when the PO election is running.
Definition of Done (what is required by the team before sending out for review) 1. Display of PO election stats/calculations are displayed to the terminal in PO processing.
Effort: Large
PBI Author(s): Elias Caceres

4.

As an election official I want percentage of votes calculated displayed So that I can see distribution of votes
Acceptance Criteria 1. Distribution of votes displayed to the screen
Definition of Done 1. Calculate percentage of votes for each candidate 2. Display the distribution of votes to the screen
Effort: Medium
PBI Author(s): Garrett Abou-Zeid

5.

As an election official I want the program to only need the files and the date So that I don't waste my time doing manual input.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Program takes file input. 2. Program can ask for the day's date.
Definition of Done (what is required by the team before sending out for review) <ul style="list-style-type: none">• The interface only returns the filenames to the program.• Do not need date input, can use a library.
Effort: Small
PBI Author(s): Caleb Tracy

6.

As an election official I want insurance that all ballots have at least half the candidates ranked So that invalid ballots are not counted.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Before any ballot processing, ballots with less than half the candidates ranked are removed.
Definition of Done (what is required by the team before sending out for review) <ul style="list-style-type: none">• When IRV processing is called, a new helper function loops through the ballots, identifying ballots that have greater than 50% of candidates ranked (0.5).• Invalid ballots are removed from the ballots array, and the total number of ballots is updated.• Unit testing for the helper function, and a new integrated test with invalid ballots.
Effort: Medium
PBI Author(s): Caleb Tracy

7.

As an election official I want to provide one or more files for election processing So that I do not have to compile files from different locations into one.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. I can select multiple files on a popup window 2. I only need to provide one or more files. 3. It is easy to select csv files in the local directory.
Definition of Done (what is required by the team before sending out for review) <ul style="list-style-type: none">• Multiple CSV files can be processed for election information.• The gui has a menu of all files in the working directory.• The gui allows for selection of multiple files.• Unit testing to ensure filenames are correctly passed to the program.
Effort: Medium
PBI Author(s): Caleb Tracy

8.

As an election official I want a gui to interact with So that I do not have to give inputs through a terminal
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) <ol style="list-style-type: none">1. The interface is beautiful and easy to use.2. The interface appears every time the program is started.3. Closing the interface ends the program's task.
Definition of Done (what is required by the team before sending out for review) <ul style="list-style-type: none">• Create a gui that appears on startup.• Gui has the capability to be minimized and closed.• Closing the gui interrupts the program.
Effort: Large
PBI Author(s): Caleb Tracy

9.

As an election official I want to select files from a popup window So that I can choose multiple files to run an election with.
Acceptance Criteria <ol style="list-style-type: none">1. There's a window I can interact with2. I can select multiple files3. I can press a button to submit the files I selected
Definition of Done <ol style="list-style-type: none">1. GUI displays all files available for use2. User can select multiple files3. A button on the GUI can be pressed to submit the selected files for processing
Effort: Large
PBI Author(s): Ashton Berg

10.

As an election official I want a file that records the ballots that were invalid So that invalid ballots can be stored somewhere.
Acceptance Criteria 1. A file is created for storing invalid ballot information 2. The file is named invalidated_dateofelection.xxx
Definition of Done 1. A file for writing to is created in the product directory 2. The file is named invalidated_dateofelection.xxx
Effort: Small
PBI Author(s): Ashton Berg

11.

As an election official I want invalid ballots to have their information written to a file So that I can see the invalid ballots for audit purposes.
Acceptance Criteria 1. Information from every invalid ballot is stored in a file
Definition of Done 1. The invalid ballots get written to the file invalidated_dateofelection.xxx
Effort: Medium
PBI Author(s): Ashton Berg

12.

As an election official I want a table displayed after processing an IRV election that shows how each round went So that I can see how the election progressed.
Acceptance Criteria <ol style="list-style-type: none">1. A table gets displayed on the screen2. Each candidate and party is shown in the table3. The table has information from each round of the election4. The number of votes each candidate gained or lost in a round is shown
Definition of Done <ol style="list-style-type: none">1. The table contains accurate election information gathered from election processing2. The table has each candidate and their political party3. The table has a column for each round4. The column for each round has how many votes each candidate has at the end of that round5. The column for each round shows how many votes each candidate gained or lost that round6. The number of exhausted ballots from each round are in the table7. Total number of valid ballots are shown in the table8. Table is displayed to the screen
Effort: Medium
PBI Author(s): Ashton Berg

13.

As an election official I want the IR election process to run properly So that the system doesn't fail
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) <ol style="list-style-type: none">1. System doesn't fail
Definition of Done (what is required by the team before sending out for review) <ol style="list-style-type: none">1. Don't remove a candidate that has no more candidates left to remove
Effort: Small
PBI Author(s): Garrett Abou-Zeid

14.

As an election official I want the CPL election process to run properly So that the system doesn't fail
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. System doesn't fail
Definition of Done (what is required by the team before sending out for review) 1. Don't allow more seats to be allocated than they have 2. Allocate the seat to the party with the next highest remainder
Effort: Small
PBI Author(s): Garrett Abou-Zeid

15.

As an election official I want the audit file to generate inside the same directory as the program So that I can find and access the file easily
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Audit file appears in the same directory as the program
Definition of Done (what is required by the team before sending out for review) 1. Generate the audit file inside the working directory
Effort: Small
PBI Author(s): Garrett Abou-Zeid

16.

As an election official I want to view the parties that are in a tie in CPL processing So that I can see who wins the fair coin toss.
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) 1. Correct party names are displayed to the terminal when a tie occurs.
Definition of Done (what is required by the team before sending out for review) 1. String names of the tied parties are displayed instead of their indexes.
Effort: Small
PBI Author(s): Elias Caceres

17.

As an election official I want a popup window when I run the program So that I can easily select multiple files
Acceptance Criteria (conditions that have to be fulfilled to ensure the story is complete) <ol style="list-style-type: none">1. Use my mouse and arrow keys2. Window displaying all available files3. Select multiple files4. Submit files
Definition of Done (what is required by the team before sending out for review) <ol style="list-style-type: none">1. Searching for a file opens up file explorer2. Validates csv files3. Have to select at least one file4. Able to interact with GUI immediately after execution5. Gui can be closed before election processing finishes
Effort: Extra Large
PBI Author(s): Everyone