Team #7 Initial Product Backlog

1: Bugfix – CPL getLargestRemainder

As an election official, each time I run a CPL election I want the results to align with what is expected (aside from randomness) so that the elections work as desired.
Acceptance Criteria: CPL elections should elect who is expected to be elected based on votes (bar randomness / tiebreakers) to available seats.
Definition of Done: Fix the bug where getLargestRemainder does not properly return the correct result: this fix should properly assign seats when implemented. Testing + documentation required.
Effort: Medium
PBI Author(s): Team #7

2: Bugfix – CSV Parsing

As an election official, I want the audit file and results print out to look nice so that the program looks and functions professionally
Acceptance Criteria: The system's output printouts look nice and have no extra spacing, commas, etc.
Definition of Done: Input ballot file data is read into the system without leading spaces, and formatting stays consistent across all user / CSV inputs. Testing + documentation required.
Effort: Medium
PBI Author(s): Team #7

3: Bugfix – Audit File Append

As an election official, each time I run the election I want an independent audit file to be generated so that the results of each election are easily verifiable.
Acceptance Criteria: When an election is run, the auditing results are produced to a singular, unique file with only the auditing contents of the election listed.
Definition of Done: Fix the bug where audit file results are appended to existing audit files when an election is run on the same ballot file on the same day. Testing + documentation required
Effort: Large
PBI Author(s): Team #7

4: New Feature - Multiple Files

As an election official, I want to be able to input multiple files for different balloting locations for the same election.
Acceptance Criteria: The election system is able to accept multiple ballot files.
Definition of Done: Multiple files can be inputted by the user as command line arguments or by prompts from the system. Requires testing + documentation.
Effort: Small
PBI Author(s): Team #7

5: New Feature – Table Printout

As an election official, I want to see a table at the end of the election so that I can see the number of votes that the candidate added/subtracted for each round.
Acceptance Criteria: The results screen contains a table displaying candidates, party, and votes per round
Definition of Done: The results printout to the terminal for IRV that holds the candidates and their party and show the results of voting per round
Effort: Large
PBI Author(s): Team #7

6: New Feature - Popular Only

As an election official, I want the candidate with the most votes to win so that the most popular candidate is selected only.
Acceptance Criteria: A PO Election is ran and produces the candidate with the most votes
Definition of Done: Popularity Only algorithm takes in candidates and ballots and returns the candidate with the most votes and breaks tie if necessary
Effort: Large
PBI Author(s): Team #7

7: New Feature - IR Multiple File Processing

As an election official, I want to run an IR election with multiple input files so that results can be generated from multiple polling locations
Acceptance Criteria: An IR election can be run with multiple input ballot files
Definition of Done: The IR calculations can function with multiple files. This would require a lot of reworking from the original IR processing. Requires testing + documentation
Effort: Medium
PBI Author(s): Team #7

8: New Feature - CPL Multiple File Processing

As an election official, I want to run a CPL election with multiple input files so that results can be generated from multiple polling locations
Acceptance Criteria: A CPL election can be run with multiple input ballot files
Definition of Done: The CPL calculations can function with multiple files. This would require a lot of reworking from the original CPL processing. Requires testing + documentation
Effort: Medium
PBI Author(s): Team #7

9: New Feature - Popular Vote Election Tests

As an election official, I want to know that a popular vote election is fair so that the integrity of a popular vote election can be upheld.
Acceptance Criteria: The election system's popular vote method produces fair results for a popular election.
Definition of Done: A popular vote election method is tested properly to ensure a popular vote election produces fair results.
Effort: Medium
PBI Author(s): Team #7

10: New Feature - Popular Vote Election Ties

As an election official, I want to be able to run a popular vote election that is able to handle ties.
Acceptance Criteria: The election system's popular vote method produces fair results when there is a tie in the election.
Definition of Done: A popular vote election uses a random number generator to determine a random winner when there is a tie.
Effort: Medium
PBI Author(s): Team #7

11: New Feature – Expanded Results printout

As an election official, I want to see more stats relating to the election upon completion so that I can get a better picture of how the election unfolded.
Acceptance Criteria: The results screen contains more statistics relating to the election after its completion.
Definition of Done: The results printout to the terminal includes vote percentages for each of the candidates (IR) and parties (CPL).
Effort: Small
PBI Author(s): Team #7

12: New Feature – Invalidated Ballot storage

As an election official, I want invalidated ballots to be stored somewhere so that I can verify the rejected ballots as a part of the election auditing process.
Acceptance Criteria: Invalidated ballots are stored to a new "invalidated ballots" file.
Definition of Done: During the election calculation process for ALL election types, any read ballots that are found to violate the 'valid ballot' criteria (specified in the agile writeup) are stored to a new "invalidated_ballots" file. Requires testing + documentation.
Effort: Large
PBI Author(s): Team #7

13: New Feature - GUI Window

As an election official, I want to not have to use the terminal to operate the program so that it is easier to use
Acceptance Criteria: The election program does not have to be run from the terminal
Definition of Done: Users can run the election from a new GUI interface and not necessarily from the terminal. Requires testing + documentation.
Effort: Extra large
PBI Author(s): Team #7