

All PBIs - ranked by product owner

As an election official, I want to find the majority vote So that I can run an Instant Runoff Election.
Acceptance Criteria: Election official is able to run a majority vote election with multiple candidates and one clear and definitive winner.
Definitions of Done: Majority vote election algorithm is functional and produces one fair winner. Election is properly logged on an audit file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to eliminate the candidate with the least votes in an IRV if there is no majority winner So that I can still find a winner if there is not a clear majority.
Acceptance Criteria: Election officials are able to run a IRV election with multiple candidates, where the lowest candidate is removed if there is no majority until one clear and definitive winner is determined.
Definitions of Done: IRV election algorithm is functional and produces one fair winner. Election is properly logged on an audit file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information from each ballot So that I can easily keep track of each vote.
Acceptance Criteria: All information from each ballot is stored within the program, separately from the input file.
Definitions of Done: Ballot information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information for each IRV ballot So that I can easily keep track of the candidate rankings and current votes.
Acceptance Criteria: All information from each IRV ballot is stored within the program, separately from the input file.
Definitions of Done: Ballot information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information for each candidate or party being voted for So that I can know each party or candidate voted for and the votes for each.
Acceptance Criteria: All information from each votable item is stored within the program, separately from the input file.
Definitions of Done: Votable item information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information for each candidate So that I can easily get all the candidate information.
Acceptance Criteria: All information from each candidate is stored within the program, separately from the input file.
Definitions of Done: Candidate information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be be able to able to determine which party in Cpl has the most votes

So that a party winner can be determined in a Cpl election
Acceptance Criteria: The party with the most votes is determined to be the winning party.
Definitions of Done: runCpl function works up until determineSeatAllocation.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to determine how many seats are allocated to each party in a Cpl election, So that I can determine which party members won a seat.
Acceptance Criteria: Seats are distributed by a quota described by the cpl protocol.
Definitions of Done: runCpl function works up until distributeRemainderSeats
Effort: Medium
Authors: Team 5

As an election official, I want to be able to use the largest remainder algorithm to distribute any of the winning party's extra seats. So that leftover seats are distributed fairly.
Acceptance Criteria: All seats are distributed to the appropriate parties.
Definitions of Done: runCpl function works properly and is tested.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information for each CPL ballot So that I can easily keep track of each ballot's rankings and current vote
Acceptance Criteria: All information from each CPL ballot is stored within the program, separately from the input file.

Definitions of Done: Ballot information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to keep track of the information for each party So that I can easily get all the party information.
Acceptance Criteria: All information from each party is stored within the program, separately from the input file.
Definitions of Done: Party information is stored. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to determine which party in Cpl has the most votes So that a party winner can be determined in a Cpl election
Acceptance Criteria: The party with the most votes is determined to be the winning party.
Definitions of Done: runCpl function works up until determineSeatAllocation.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to determine how many seats are allocated to each party in a Cpl election, So that I can determine which party members won a seat.
Acceptance Criteria: Seats are distributed by a quota described by the cpl protocol.
Definitions of Done: runCpl function works up until distributeRemainderSeats
Effort: Medium

Authors: Team 5

As an election official, I want to be able to use the largest remainder algorithm to distribute any of the winning party's extra seats. So that leftover seats are distributed fairly.
--

Acceptance Criteria: All seats are distributed to the appropriate parties.
--

Definitions of Done: runCpl function works properly and is tested.
--

Effort: Medium

Authors: Team 5

As an election official, I want to be able to fairly determine a tie between two candidates by a coin toss So that a tie can be determined fairly and randomly.

Acceptance Criteria: Tie breaking can handle two candidates. One candidate is determined as the winner.

Definitions of Done: Tie breaker is functional and produces one fair winner. Unit and system testing is successful.

Effort: Medium

Authors: Team 5

As an election official, I want to have a file tracking the process of the election So that I can review how the election was determined, and the result.

Acceptance Criteria: Audit file is created and can hold the information on how ballots were assigned throughout the election.

Definitions of Done: Audit file is functional and follows the process of the election. Election is properly logged on the file. Unit and system testing is successful.
--

Effort: Medium

Authors: Team 5

As an election official, I want to track when a candidate is removed in an IRV election So that I can see how their ballots were reassigned.
Acceptance Criteria: Audit file holds the information on how ballots were reassigned after a candidate is removed in an IRV election.
Definitions of Done: Audit file follows the process of the removal of a candidate from an IRV election. Election is properly logged on the file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be shown the results of the election when it is done running So that I can easily see who won..
Acceptance Criteria: Results of the election are displayed once determined.
Definitions of Done: Results of the election are displayed to the terminal. Election results are properly logged on an audit file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

NOTE: Above are bugs from the Waterfall project. Below are PBI's for the Agile Project.

As an election official, I want to be able to input multiple ballot files So that files from multiple voting locations may be used at once.
Acceptance Criteria: Multiple .csv files are inputted into the program which are then parsed to obtain ballot information.
Definitions of Done: Multiple files are accepted until indicated done with input files. Unit and system testing is successful.
Effort: Large
Authors: Team 5

As an election official, I want the IRV election data organized into a table So that we may clearly understand how the election went.
Acceptance Criteria: At the completion of IRV election, a table is displayed to the screen detailing each IRV round and the number of votes added or subtracted from each candidate per round.
Definitions of Done: A table with the correct IRV election data is displayed to the screen. Unit and system testing is successful.
Effort: Large
Authors: Team 5

As an election official, I want to be able to input ballots as a .csv file So that I can provide ballots in a simple way that the program can use.
Acceptance Criteria: .csv files containing the ballots of an election are accepted by the system in order to run the program.
Definitions of Done: File input is functional and the program runs with .csv files as input parameters. Unit and system testing is successful.
Effort: Small
Authors: Team 5

As an election official, I want to find the plurality vote So that I can run a Popularity Only Election.
Acceptance Criteria: Election official is able to run a popularity only election with multiple candidates and one clear and definitive winner.
Definitions of Done: Popularity Only election algorithm is functional and produces one fair winner. Election is properly logged on an audit file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want to be able to determine a tie between two or more candidates in a popularity vote by a coin toss So that a tie can be determined fairly and randomly.
Acceptance Criteria: Tie breaking can handle two or more candidates. One candidate is determined as the winner.
Definitions of Done: Tie breaker is functional and produces one fair winner. Testing is successful.
Effort: Medium
Authors: Team 5

UNRANKED ITEMS: Below are all PBI's that the product owner did not specifically rank (besides GUI items which are ranked very last). We loosely ranked these from a technical perspective.

As an election official, I want to be able to select downloaded files to use from a directory So that it is easy to maintain the election data and run the election.
Acceptance Criteria: Files stored on home computer are able to be selected for use in the system.
Definitions of Done: File input is functional and system integration with home directory is smooth. Unit and system testing is successful.
Effort: Small
Authors: Team 5

As a voter, I want the percentage of votes each candidate received recorded So that I may know how well the candidate I voted for did.
Acceptance Criteria: The percentage of votes each candidate received is calculated and written to the audit file for later release and displayed to the screen at the completion of the election.
Definitions of Done: The percentage of votes per candidate is correctly recorded on the audit

file. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want IRV ballots to be validated before being used in the election So that only properly filled ballots will be used and the election will be fair.
Acceptance Criteria: When a ballot is received which does not meet the required criteria (at least half of candidates ranked, rounded up) it is removed from the election.
Definitions of Done: IRV ballots have been checked and valid ballots are used, invalid ballots are removed from the count. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want all invalid ballots to be stored in an audit file named invalidated_dateofelection.xx So that proper election record keeping is maintained
Acceptance Criteria: When a ballot is determined invalid, it is stored in the file invalidated_dateofelection.xx for audit purposes.
Definitions of Done: Invalid ballots are removed and the audit file is updated. Unit and system testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want the program to run quickly So that I can find out the winner without a long wait.
Acceptance Criteria: The election winner(s) are determined in less than 4 minutes.
Definitions of Done: Election algorithm runs completely under 4 minutes. Unit and system

testing is successful.
Effort: Medium
Authors: Team 5

As an election official, I want the PO election winners to be displayed on the screen So that I may easily see the winner.
Acceptance Criteria: Once the system is finished calculating the winner of the PO election, the name of the winning candidate is displayed on the screen for viewing.
Definitions of Done: The name of the correct winner of the PO election is displayed to the screen. Unit and system testing is successful.
Effort: Small
Authors: Team 5

As an election official, I want all information about the election to be received from my input file or through easy to use interfaces So that I have an easy time beginning the election.
Acceptance Criteria: All election material is parsed from the input file(s) or through a GUI window requesting the date of election.
Definitions of Done: All necessary information to run the program is given or provided. Unit and system testing is successful.
Effort: Medium
Authors: Team 5