User: As an election official, I want the election system to account for any ties between candidates so that the results are fair between candidates.

Acceptance Criteria:
- If there is a tie between any candidates, one candidate should be randomly selected as the winner.
- Use a coin-toss simulation to select a winner
- Break ties between more than just 2 candidates

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: medium

PBI Authors: team 3

User: As an election official, I want the election system to have an easy-to-follow display so that the election process and results can be easily viewed.

Acceptance Criteria:
- The election process and results are displayed in a visually appealing way.
- The viewers can easily see the results of the election

Definition of Done: The election system is tested for any election to make sure that a visual display appears and displays the results of the election.

Effort: medium

PBI Authors: team 3

User: As an election official, I want an understandable audit file that walks through the process of an election as it occurs so that it's easy to see how votes were distributed.

Acceptance Criteria:
- Everytime a ballot is counted, the votes are documented in the audit file
- A file is created with all the election details

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: easy

PBI Authors: team 3

User: As the election official, I want an election voting system that finds a winner through popularity only so that systems that use popularity as their voting systems can run their elections.

Acceptance Criteria:
- System correctly finds a winner in popularity systems
- System can account for ties
- System can count ballots and get rid of invalid ballots

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: medium

PBI Authors: team 3

User: As the election official, I want an audit file with a specific name that corresponds to the election type so that it is easy to organize and determine what audit file corresponds to which election

Acceptance Criteria:
- Election is ran successfully and an audit file is created with the date and type of election
- If multiple same type of elections in a day, indicated by 1, 2, …. for each new election
- All info is documented in the audit file

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.a

Effort: easy

PBI Authors: team 3

User: As the election official, I want a closed party list election to check and handle when there are more seats available than candidates in an election, so that there is a way to account for the extra seats and they don't get lost

Acceptance Criteria:
- A CPL election is successfully ran
- If more seats that candidates, gives a seat to second place party candidate

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are

also created.
Effort: medium
PBI Authors: team 3

User: As the election official, I want to find and calculate the results of an election so that I don't have to do it by hand.
Acceptance Criteria: ● Calculates winner for OPL election ● Counts number of votes each candidate gets
Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.
Effort: medium
PBI Authors: team 3

User: As the election official, I want to identify invalid ballots so that there aren't any errors in calculations for elections and winners
Acceptance Criteria: ● An election has started and files have been input to the election ● If there is an invalid ballot, system deletes it and continues on with other calculations
Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.
Effort: easy
PBI Authors: team 3

User: As the election official, I want a specific file that holds which ballots were invalidated in an election so that there is an accurate count of votes
Acceptance Criteria: ● System takes all invalid votes and creates a file on user's desktop with the invalid votes
Definition of Done: Election system passes tests for various elections, regardless of the number of files

used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: easy

PBI Authors: team 3

User: As the election official, I want the system to be able to handle multiple files so that I don't need to do any additional work to convert all ballots to one file.

Acceptance Criteria:
- Program takes more than one ballot and counts votes from all files

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: medium

PBI Authors: team 3

User: As the election official, I want the election system to prompt for any additional information that is needed so that if there is missing information the election can still be run.

Acceptance Criteria:
- After a file is entered the program prompts for more information

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: easy

PBI Authors: team 3

User: As the election official, I want to process the headers of Instant Runoff ballots so that I can handle having multiple ballots.

Acceptance Criteria:
- All files with ballots are made available.
- The header of the IRV files are looked at to collect information

Definition of Done: Election system passes tests for various elections, regardless of the number of files

used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: easy

PBI Authors: team 3

User: As the election official, I want to process the headers of Closed Party List ballots so that I can handle having multiple ballots.

Acceptance Criteria:
- All files with ballots are made available.
- The header of the CPL files are looked at to collect information

Definition of Done: Election system passes tests for various elections, regardless of the number of files used and whether or not there are any ties. All required files regarding the election and its results are also created.

Effort: easy

PBI Authors: team 3