

| PBI | Not started | In-progress | Complete | | | | |
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| Tie-breaker for CPL As an election official I want to use a tie-breaker to choose a candidate to allocate remainder votes to in CPL So that there will always be only one candidate chosen fairly Acceptance Criteria: A candidate is chosen out of a number that has the same remaining votes. Definition of Done: When reallocating votes based on remainder votes in CPL, the algorithm picks a candidate from a pool of candidates with the same remainder of votes via a tiebreaker. Effort: Small | | | - Code Liam - Integrate Liam - Test Liam | | | | |
| Add date to audit file As an election official I want to add a date of an election to an audit file So that I know when the ballots were counted for a particular election Acceptance Criteria: Save a date of an election to an audit file Definition of Done: Successfully adds a date of an election to an audit file Effort: Small | - integrate - test | Code: Soorya | | | | | |
| Input multiple files As an election official I want to be able to process multiple files So that I can combine voting ballots from multiple election sites Acceptance Criteria: The program will include ballots from all files given to the program as well as header information all files share. Definition of Done: Before parsing any files and counting ballots, the program must parse header information from a singular file to represent the election being simulated, then all files will be processed sequentially and the ballots will be collected from each and stored together. Effort: Medium | | - testing: Bilal | -Header Parsing: Bilal -multiple file parsing: Bilal -PO integration: Bilal -CPL integration: Bilal -IRV integration: Bilal - inputting multiple ballots from files : Bilal | | | | |
| Display IR table of election results As an election official I want to be able to see IRV table of election results in a window So that I can see how election is simulated and calculated in an ordered format Acceptance Criteria: A table displays all of the election rounds and allocations as well as candidate rankings per round on the screen through a table. | - UML design - design GUI - code GUI - integrate functionality with GUI - integrate with system - test | - determine when/where data is gathered Liam | | | | | |

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| <p>Definition of Done: The class is able to contain all election information done through simulation loop or rounds and is able to present that data as a table which is shown on the GUI.</p> <p>Effort: Large</p> | | | | | | | |
| <p>Remove invalid ballots</p> <p>As an election official I want to have remove ballots with less than half of the candidates ranked in Instant Runoff Voting (IR) So that I can run an election with only valid ballots</p> <p>Acceptance Criteria: Ballots that do not have half of the candidates ranked at least are not counted and the invalid ballots are shown in audit file.</p> <p>Definition of Done: Collects ballots that are not valid by counting if less than half of the candidates are ranked. The invalid ballots will be saves in a data structure later put into the audit file.</p> <p>Effort: Low</p> | | - new method for finding invalid ballots: Bilal -test: Bilal | | | | | |
| <p>PO voting algorithm</p> <p>As an election official I want Popularity Only (PO) voting algorithm So that I can select a winning candidate with the most votes</p> <p>Acceptance Criteria: The election simulation is able to gather all ballots and display the winner of the election based on popularity.</p> <p>Definition of Done: Select a winner based on the candidate receiving the most ballot by counting up ballots per candidate.</p> <p>Effort: Medium</p> | - UML design - code PO candidate - integrate with FileParser - test | Code: Hyehwan | | | | | |
| <p>Tie-breaker for PO</p> <p>As an election official I want an unbiased system to break ties in Popularity Only Voting (PO) So that I can select a winning candidate in a fair trial</p> <p>Acceptance Criteria: One candidate out of a couple with the same rating will be randomly chosen.</p> <p>Definition of Done: The method is able to return a random candidate name from a list of candidates.</p> <p>Effort: Small</p> | - test - integrate with PO algorithm | Code: Hyehwan, Soorya | | | | | |
| <p>Run program through GUI</p> <p>As an election official I want a GUI window So that I can be able to start the election process</p> | - code GUI design - code functionality - integrate with GUI - unit test - system test | | | | | | |

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| Acceptance Criteria: There is a GUI that the user can see and click on to start election simulation. | | | | | | | |
| Definition of Done: The GUI is displayed on the screen with the necessary prompts and the user is able to run the main function in the FileParser class.. | | | | | | | |
| Effort: Large | | | | | | | |
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| GUI for PO results | - code GUI design | | | | | | |
| As an election official | - code functionality | | | | | | |
| I want to be able to see PO election results in a window | - integrate functionality with GUI | | | | | | |
| So that I can see how election is simulated and calculated | - unit test | | | | | | |
| Acceptance Criteria: The GUI shows election results and calculations on the screen. | | | | | | | |
| Definition of Done: The class is able to contain all election information done through algorithms of PO and display it on the screen. | | | | | | | |
| Effort: Medium | | | | | | | |
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| GUI for CPL results | - code GUI design | | | | | | |
| As an election official | - code functionality | | | | | | |
| I want to be able to see CPL election results in a window | - integrate with CPL results functionality | | | | | | |
| So that I can see how election is simulated and calculated | - unit test | | | | | | |
| Acceptance Criteria: The GUI shows election results and calculations/allocations of ballots on the screen. | | | | | | | |
| Definition of Done: The class is able to contain all election information done through algorithms of CPL and display it on the screen. | | | | | | | |
| Effort: Medium | | | | | | | |
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| GUI for file selection | - code GUI design | | | | | | |
| As an election official | - code functionality | | | | | | |
| I want a GUI window | - integrate with multiple file input functions | | | | | | |
| So that I can select ballot files for processing from a directory | - unit test | | | | | | |
| Acceptance Criteria: The screen will allow the user to click on files from computer and/or type in filenames | | | | | | | |
| Definition of Done: The GUI is able to input file names from local directories and from text input | | | | | | | |
| Effort: Medium | | | | | | | |
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| GUI prompts for date of election | - code GUI design | | | | | | |
| As an election official | - code functionality | | | | | | |
| I want to be able to set the date of the election | - integrate with date selection functions | | | | | | |
| So that I can store information about when the election was conducted for future reference | - unit test | | | | | | |

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| Acceptance Criteria: The GUI asks for the date of an election | | | | | | | |
| Definition of Done: GUI asks for the date of an election | | | | | | | |
| Effort: Low | | | | | | | |
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| Add PO election progress to an audit file | - code - integrate with current audit functions - test | | | | | | |
| As an election official I want to store the election result in an audit file So that I have proper documentation of election information | | | | | | | |
| Acceptance Criteria: Write correct results of an election for PO to an audit file and return the correct audit file | | | | | | | |
| Definition of Done: The election information gathered from the PO election simulation will be written onto the audit file which has been already created. | | | | | | | |
| Effort: Small | | | | | | | |