

PBI	ID	User story	Tasks	Status	Estiamted Effort	Assigned To
WEEK 1						
Bring in multiple files into the election system	001	As an election official, I want to be able to bring in multiple files, so that I can bring in different files from different locations.	Loop command argument count and add each argument to an array if the file exists (use exists method) If a file does not exist, display error Make CPL and IR take in multiple files All testing complete	Completed Completed Completed Completed	1 hour	Chiemeka
Process multiple files into the IRV election system	002	As an election official, I want the IRV files to be processed, so that the IRV election can be run.	Change IR constructor arguement to take an array of files Loop n files to call initializeData and poppulateData n times Testing	Completed Completed In progress(50%) Not Started	2 hours	Puong
Process multiple files into the CPL election system	003	As an election official, I want the CPL files to be processed, so that the CPL election can be run.	Change CPL constructor argument to take an array of files Loop n files to call populateBallots, populateCandidates, and populateParties n times Adjust populateBallots to increase a total ballot count by the total ballots listed in each file Change array sizes to total ballot count Adjust unit testing to for changes	Completed Completed Completed Completed Completed	2 hours	Sidney
A table that shows each round of the IRV	004	As an election official, I want to see a table that shows each round of the IRV, so that the election results are understood.	Add new function to format and output table Add variables to track vote counts for candidates each round Add tracking for exhausted ballots Add unit testing for changes	Completed Completed Completed In progress(50%)	4 hours	Ted
View what votes are added and what votes are decreased	005	As an election official, I want to view what votes are added and what votes are subtracted for the IRV election, so that I can see the election process.	Track each round's vote total for each candidate Calculate vote differences using tracked counts Add vote difference to table function	Completed Completed Completed Not Started	2 hours	Ted
WEEK 2						
Process multiple files into the PO election system	006	As an election official, I want the files to be processed, so that the PO election can be run	Create population functions with array of files as input Loop n files to call population functions n times	Not Started Not Started Not Started Not Started	2 hours	
Candidate votes are accounted for	007	As an election official, I want candidates' votes to be accounted for so that the integrity of the election holds.	For processing each file, assign ballot correctly to candidate In IRV, if vote is not ranked for at least half the candidates, invalidate vote	Not Started Not Started Not Started Not Started	2 hours	
IRV ballots to have at least half the candidates ranked for it to be valid	008	As an election official, I want IRV ballots to have at least half the candidates ranked for it to be valid, so that the election maintains its validity.	Change populateData to exhaust invalid ballots Exhausted ballots will show -1 as their current vote	Not Started Not Started Not Started Not Started	2 hours	
A new file containing all of the invalidated votes	009	As an election official, I want to see a new file containing all of the invalidated votes after an IRV election completes, so that even unused ballots are accounted for.	Create new function to create exhausted ballot file Loop through ballots to find any ballots with current vote of -1 Output exhausted ballots to the new file	Not Started Not Started Not Started Not Started	1 hour	
The PO election determines a single winner when there are no ties	010	As an election official, I want the PO election to determine a single winner when there are no ties, so I can announce a winner.	Loop through n candidates, using a find largest algorithm to keep track of the highest vote count If the current vote count is equal to the highest vote count, keep track with an arraylist (number of ties unknown) If there is no tie, declare candidate with the highest vote count from the loop as winner Use variable to contain the winner to use when displaying results	Not Started Not Started Not Started Not Started	4 hours	
An unbiased system to break ties for PO election	011	As an election official, I want an unbiased system to break ties for a PO election, so that election integrity is maintained.	Loop through n candidates, using a find largest algorithm to keep track of the highest vote count If the current vote count is equal to the highest vote count, keep track with an arraylist (number of ties unknown) Call separate function that determines winner using fair coin toss Fair coin toss function should generate a random number 1000 for unbiased value for each tie, which ever is closest to another unbiased generated chosen number is the winner	Not Started Not Started Not Started Not Started	3 hours	
The PO election winner and stats displayed on the screen	012	As an election official, I want to see the PO election winner and stats displayed on the screen at the end of the election, so that I can see the results.	Call display() function in Election class Write the display() function in PO class Print out statements for the election	Not Started Not Started Not Started Not Started	1 hour	
Run the entire PO election	013	As an election official, I want the PO election to run correctly, so that a winner can be decided	Process files, assign votes to candidates Call determine winner/need for a tie The previous step determines a winner tie or not Display results	Not Started Not Started Not Started Not Started	2 hours	
A GUI to select files	014	As an election official, I want to use a pop-up (GUI) window to select files for processing, so that I can choose the right file(s) for each election.	Google File Choosers for Java, it provides a GUI for navigating the file system Resource: https://docs.oracle.com/javase/tutorial/uiswing/components/filechooser.html	Not Started Not Started Not Started Not Started	4 hours	