

## Sprint 1 (04.08 - 04.14)

No.	Category	Committed Backlog Items	Tasks	Status		
1	Title	User Input in CSV file	Tasks	Not Started	In Progress	Finished
	Description	As the user, I want a CSV file to store all input information about candidates and ballots, so that I can run the election without previous knowledge of the elections other than the file name.	Determine the order/format of input information			X
	Acceptance Criteria	<ul style="list-style-type: none"> <li>All input can be loaded.</li> <li>The system can run without error.</li> <li>The CSV file can store all information about the candidates and the ballots</li> </ul>	Modify file reading method to parse input information			X
			Test for file reading method			X
			Store parsed input information in database struct			X
			Test for write to database functionality			X
	Effort	Medium				
2	Title	Ballot Validation	Tasks	Not Started	In Progress	Finished
	Description	As an election official, I want a ballot to be considered as valid if and only if it has at least half of the candidates ranked when using Droop Quota so that I can fulfill the requirement by my higher ups.	Modify file reading method to check ballot validity as reading the file	X		
	Acceptance Criteria	<ul style="list-style-type: none"> <li>Valid ballots should contribute to the election.</li> <li>Invalid ballots should be filtered out and excluded from the election data.</li> <li>A ballot should either be valid or invalid, not other state.</li> </ul>	Test for file reading method	X		
			Store valid ballots to database struct	X		
			Test for overall ballot validation functionality	X		
	Effort	Medium				
3	Title	CSV File Input Mode	Tasks	Not Started	In Progress	Finished
	Description	As a user, I want to be able to choose to run the input file by either including it as an argument, or be prompted to enter an input filename, so that I can have a more flexible way to input the CSV file.	Modify program main function to allow 0 or 1 input parameters			X
	Acceptance Criteria	<ul style="list-style-type: none"> <li>The system can run without error.</li> <li>The user can include the input file name as an argument.</li> <li>If the input file name is not included as an argument, the system will prompt the user to enter the source of the input file.</li> </ul>	Test program main function with 0 parameter			X
			Test program main function with 1 parameter			X
			Test for the main function			X
	Effort	Small				
4	Title	Visualization of Ballot Process	Tasks	Not Started	In Progress	Finished
	Description	As a product owner, I want the progress of the election to be visualized so that I can see and monitor the election progress as it is running.	Implement the visualization functionality (Terminal Based Progress Bar) of Plurality	X		
	Acceptance Criteria	<ul style="list-style-type: none"> <li>A running total for each candidate.</li> <li>A state of winning and losing list</li> <li>If droop is chosen, a update on each pass should be shown</li> <li>If Plurality is chosen, tallies for each candidate should be updated</li> </ul>	Test for Plurality	X		
			Implement the visualization functionality (Terminal Based Progress Bar) of Droop Quota	X		
			Test for Droop Quota	X		
	Effort	Large				

## Sprint 2 (04.15 - 04.21)

No.	Category	Committed Backlog Items	Tasks	Status		
1	Title	Accept ballot from users	Tasks	Not Started	In Progress	Finished
	Description	As a election officer, I want the system receive ballot directly from users input, so I don't need to recall the system if more ballots are added in election.	Modify program main function to keep running until finish accepting all user inputs	X		
	Acceptance Criteria	<ul style="list-style-type: none"><li>The system can run with error.</li><li>User should have access for the election to vote</li><li>The system process keep running to accept users' inputs until the end of voting process.</li></ul>	Test system with different user inputs	X		
			Test inputing ballot from different users at same time	X		
			Test in debug mode.	X		
Effort	Small					
2	Title	Get summary	Tasks	Not Started	In Progress	Finished
	Description	As a election official, I want to get a file that has the summary and certification of the election process, so I can get all important information as the time I need.	Create a other file with needed information during the algorithm process.			X
	Acceptance Criteria	<ul style="list-style-type: none"><li>The system can run without error.</li><li>The system can automatically generate output file during the process.</li><li>The output file should be valid.</li></ul>	Implement file creating functionality.			X
			Test with different input files.			X
			Test get Summary method.			X
Effort	Medium					
3	Title	Handle Large Data set	Tasks	Not Started	In Progress	Finished
	Description	As a user, I want the system allow to run a large input with good performant time, so I can use the system in a big election.	Check and modify data structure and algoritms to make sure the system have a reasonable perform time with large input	X		
	Acceptance Criteria	<ul style="list-style-type: none"><li>The system can be executed without error.</li><li>User input should be valid</li><li>The system structure can store massive amount of data.</li></ul>	Test system with regular size of input	X		
			Test system with large size of input	X		
			Test system performan time with large input	X		
Effort	Large					
4	Title	Algorithm Implementation	Tasks	Not Started	In Progress	Finished
	Description	As a product owner, I want both Droop Quota and Plurality algorithm to be fully implemented, so that I can run elections using these 2 algorithms	Make shuffle an default option	X		
	Acceptance Criteria	<ul style="list-style-type: none"><li>Each algorithm should be fully implemented.</li><li>Each algorithm should generate stable and correct election results.</li><li>Each algorithm should be able to be tested.</li></ul>	Test for shuffle option	X		
			Fix bug in Droop (Not distribute votes correctly)	X		
			Test for Droop algorithm	X		
Effort	Large					