

## Sprint Backlog (04.20.18)

No.	Category	Committed Backlog Items	Tasks	Status		
1	Title	Droop Quota and Plurality Algorithms' Full Functionalities	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	Fix bug in Droop (Not distribute votes correctly)			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 Droop algorithm			X
			Test for Plurality algorithm			X
	Effort	Large				
2	Title	Change Shuffle functionalities	Tasks	Not Started	In Progress	Finished
	Description	As a product owner, I want that developers can have the ability to turn on the "developer mode" by adding a "d" argument as the first argument at command line; if not added, the system will go into user mode, so that developers can enter developer mode without interfering the users.	Modify main method to allow user to enter "d" argument		X	
	Acceptance Criteria	<ul style="list-style-type: none"> <li>The system functions normally if the "developer" argument is not added as the first input argument for the voting system.</li> <li>When "developer" is added as the first argument for the voting system, the system go into developer mode.</li> <li>When the system is in developer mode, the system should turn off the shuffle option.</li> </ul>	Test if main method is able to handle different combinations of user input		X	
			Modify database class to properly set shuffle flag		X	
			Test if the shuffle flag is set properly for droop	X		
	Effort	Medium	Test if the shuffle flag is set properly for plurality	X		
3	Title	No User Input	Tasks	Not Started	In Progress	Finished
	Description	As a user, I want to store detailed information such as how many ballots there were, the number of candidates, the number of seats, the election type in the file, so that I do not have to any information other than the file name when I use the voting system.	Determine the format/order of user input in csv file	X		
	Acceptance Criteria	<ul style="list-style-type: none"> <li>The system can run without error.</li> <li>The user can include inputs, such as number of winners and algorithm, in the input csv file.</li> <li>The system should read user input from the csv file.</li> </ul>	Modify the main method to eliminate prompt of user input	X		
			Modify read_file function to read and store user inputs from csv file	X		
			Test if use input can be properly read and stored	X		
	Effort	Small				
4	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 multiple 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>	Modify code to properly store input csv filename	X		
			Test program main function when user input file name as an argument	X		
			Test program main function when user does not input file name as an argument	X		
	Effort	Small	Test program with developer mode	X		
5	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 droop quota algorithm to validate ballot while running the election	X		
	Acceptance Criteria	<ul style="list-style-type: none"> <li>Ballot should not be validated at the point of data collection</li> <li>Ballot should be validate while running the election</li> <li>Valid ballot should be properly distributed, invalid ballot should be added to the invalidated votes list.</li> </ul>	Test if the validated ballots contribute to the election	X		
			Test if invalidated ballots are removed to the invalidated ballot list	X		
	Effort	Medium				
6	Title	Get summary from Audit Report	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.	Implement write_output function in VotingSystem class	X		
	Acceptance Criteria	<ul style="list-style-type: none"> <li>The system should be able to generate an output file from the election</li> <li>The output file should contain the date, type of election, the candidates, the number of seats, and the winners of the election.</li> <li>The output file should be in the same directory as the audit report file</li> </ul>	Modify program main function to call write_output()	X		
			Test if output file can write properly	X		
			Test if the generated output file contains required information	X		
	Effort	Medium				