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## Committed Backlog Items

1 Generality of input file location (fix problem from project 1)

As an official I want input file form any location as I want So that official could easily move file around
Acceptance and Done Criteria: Official could input file from different locations
Effort: Small

TODO	In Progress	Done
		Store the input file location as a string
		Read the file name
		code to automate tests

## 2 Identity Invalid Ballots

As an official

When I use the droop algorithm, I don't want to count for ballots that are less than half of candidate ranked. So that the invalidate ballots will not be counted when the election is run with the software system.

Acceptance and Done Criteria: the algorithm will automatically exclude those ballots which less than half of candidates ranked.

Effort: Medium

TODO	In	Done
	Progress	

	Code to loop through input ballot file and check if ballots have less than half candidate ranked
	Code to design data structure to separate invalid ballots and valid ballots and store them in proper location.
	code to automate tests

## 3 Generate report for invalid ballots

#### As an official

When I use the droop algorithm, the system could be able to account for all invalid ballots and generate report to disk that store all invalid ballots.

So that the system could be able to manage them, and system could keep track of those invalid ballots for later use.

Acceptance and Done Criteria: Ballots could be managed accordingly. System could generate report which contains all invalid ballots

Effort: Medium

TODO	In Progress	Done
		Code to store the invalid ballots
		Code to generate report for the invalid ballots
		Code to automate tests

#### 4 UI Design

As an official

I want a graphic user interface for all information I need to input So that official could easily input information

Acceptance and Done Criteria: Official could input information through UI

Effort: Small

TODO	In Progress	Done
	Build the base user interface	

Add the needed UI element such as button, input file, message box, etc.	
Link all the buttons with the relevant functions.	
Make unit testing	

## 5 File explorer functionalities

As an official

I want to search for files on the disk and select files from a directory structure. So that I can select files from different directories easier.

Acceptance and Done Criteria: there will be interface to directory structure, tester can select file directly through the user interface.

Effort: Medium

TODO	In Progress	Done
	Import API and insert it to the GUI frame at certain location	
	Unit test for the file explore	

#### 6 Name the Invalidated File

As an official

I want to be able to name the invalidated file whatever I like and store it wherever I like. So that official could easily name and save the file.

Acceptance and Done Criteria: there will be an interface to directory structure, and users can name and store their file in that directory. Testers can select names and store the file directly through the user interface.

Effort: Medium

TODO	In Progress	Done
	Code to find invalidated file	
	Code to name the invalidated file	
	Code to store the invalidated file	
	Automate tests	

#### 7 Generate printable audit report file

As an official

Besides the audit file, I want an audit report that can be saved and printed, so I can give it to the election certification officials.

Acceptance and Done Criteria: The report must have a date, a type of election, the candidate, the number of seats, and the winner of the election. If there were "winners" taken from the "losers" list that did not reach droop or were determined by a coin toss, that they are on the winners list that is given to the officials. Only the pertinent information is on this report. No need for losers.

Effort: Large

TODO	In Progress	Done
Code to generate audit report		
Code to save the audit report		
Code to print audit report		
Automate tests		

## 8 Alternative ballot input method from user input through screen

As an official

I want to have the ballots input on the screen directly into the program on one machine So that official could easily input ballot info through screen instead of file

Acceptance and Done Criteria: Official could input ballot information through the screen and UI on one machine

Effort: Medium

TODO	In Progress	Done
Code to take the input and store at certain location		
Check if user input will interact with other features or if there are concurrency issues		-
Make unit test		

# 9 Stop receive ballot and generate result

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As an official I want to stop the election to run the result So that official could stop receive ballots information and run system to generate result
Acceptance and Done Criteria: Officials are able to stop receiving ballots information and run the result
Effort: Medium

In Progress	Done