

Voting System

Initial Product Backlog

Team 1

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PBI 1

Because the Product Owner, Shana, needs all of the functionality on the Project1 phase to be completed before any new work is to be completed, we need to fix the issue of users being able to input the same file of ballots multiple times. Correcting this bug prevents faulty elections being processed in which ballots would be used many times over.

Acceptance and Done Criteria

1. All ballot files should be unique
2. If a ballot file is entered many times, it only gets added to the files variable for the election once

Effort: Small

PBI 2

Because the Product Owner, Shana, needs all of the functionality on the Project1 phase to be completed before any other work is to be completed, we need to fix the issue of users being able to enter through the input files prompt without entering any files. Correcting this bug prevents the user from running the election without noting the files to use.

Acceptance and Done Criteria

1. The election must have at least one file of ballots
2. The input files prompt must not allow for empty input

Effort: Small

PBI 3

The Product Owner would like to be able to search for files on the disk and select files from a directory structure. This will allow the system to be more simplistic to the user, to see what's there already and choose what's available rather than having to explicitly know the file name(s) that need to be looked at by the system.

Acceptance and Done Criteria

1. A GUI of the project directory needs to be able to select one or more type csv files.
2. The directory structure should be searchable for csv files.
3. Those selected files must be used when running the system.

Effort: Medium

PBI 4

The election officials higher-ups would like STV ballots to be invalidated by our system rather than before the files are given to the system. This will allow less manual work on the election officials end, as well as be less error-prone to inaccurate invalidation.

Acceptance and Done Criteria

1. All invalid STV ballots (with less than half of the candidates ranked) must be taken out of the evaluation process.

Effort: Small

PBI 5

The election officials higher-ups would like the system to account for and report all STV ballots that have been invalidated and stored to a file on the disk. This will allow for a better audit trail.

Acceptance and Done Criteria

1. All invalid STV ballots (with less than half of the candidates ranked) must be reported to a specified file that is stored on the disk to be viewed.

Effort: Small

PBI 6

As an election official, I would like to enter the type of election and the number of seats by using a GUI. Using a GUI will make the Voting System more user friendly and ultimately easier to use.

Acceptance and Done Criteria

1. Java GUI libraries have been significantly researched in order to implement a GUI.
2. Vote type is collectible via a GUI
3. Number of seats is collectible via a GUI

Effort: Medium

PBI 7

As an election official, I want to be able to name the invalidated file whatever I like through a GUI so that I can find the correct file later.

Acceptance and Done Criteria

1. A GUI exists to name the file.
2. The resulting file is named whatever was entered in the GUI.

Effort: Small

PBI 8

As an election official, I want to be able to store the invalidated file wherever I like using a GUI so that I can find it and do not have to move it to a different location at a later point in time.

Acceptance and Done Criteria

1. A GUI exists to choose the file location.
2. The resulting file is stored in whatever location was entered in the GUI.

Effort: Small

PBI 9

As an election official, I want a short report with pertinent information after the election concludes so that I can give it to the election certification officials.

Acceptance and Done Criteria

1. Report for the officials has been generated and lists the date, type of election, candidates, number of seats, and winners of the election.
2. Report is correct and all information is valid.

Effort: Small

PBI 10

As an Election official, I want to enter ballots into the system that go directly into the program, and I want to be able to do this on one system in real-time.

Acceptance and Done Criteria

1. Prototype-based on our own system
2. Ballots able to be inputted directly into the program.
3. Ability to stop accepting ballots to run the election.

Effort: Large

PBI 11

As an Election official, I want a help screen accessible via a GUI. The help menu is important for getting assistance with the program, and the GUI aspect provides for ease of use.

Acceptance and Done Criteria

1. A button exists in the GUI to move between a help screen and the prompt
2. Upon switching to the help screen, the GUI renders information for how to use the program

Effort: Small

PBI 12

As an Election official, I want the GUI to display the election results so that I can easily see a summary of the election results while still in the active GUI window.

Acceptance and Done Criteria

1. Upon completion of an election, the GUI window populates with election results information

Effort: Small

PBI 13

As an election official, I want the GUI to contain a confirmation screen that allows myself to review the information I entered into the system for the election. I want this screen for the purposes of adding a form of a review before processing an election.

Acceptance and Done Criteria

1. A GUI has a screen that displays the election information input into the system.
2. There exists a button that allows the user to confirm the input is correct
3. A button exists for each prompt (vote type, number of seats, files) that allows the user to edit the respective information.

Effort: Medium

PBI 14

As an election official, I want to be able to print the certification report after the election concludes so that I can give a physical copy to the election certification officials.

Acceptance and Done Criteria

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| 4. Connection to a printer has been thoroughly tested. 5. Option exists in GUI to print a document. |
| Effort: Medium |

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| PBI 15 As an election official, I want to be able to quit the Voting System program at any prompt before running an election. I may encounter a situation in which I am no longer ready to submit the election, and I would like the program to execute to ensure the process is ended. |
| Acceptance and Done Criteria 6. Button exists in GUI to quit the program. 7. Upon click of the button, the program terminates. |
| Effort: Small |

PBI Tracker

| Backlog Item | Not Started | In Progress | Complete |
|--------------|-------------|-------------|----------|
| PBI 1 | x | | |
| PBI 2 | x | | |
| PBI 3 | x | | |
| PBI 4 | x | | |
| PBI 5 | x | | |
| PBI 6 | x | | |
| PBI 7 | x | | |
| PBI 8 | x | | |
| PBI 9 | x | | |
| PBI 10 | x | | |
| PBI 11 | x | | |
| PBI 12 | x | | |
| PBI 13 | x | | |
| PBI 14 | x | | |
| PBI 15 | x | | |