

CSci 5801 Initial Product Backlog

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| 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 |
| Acceptance Criteria: <ul style="list-style-type: none">• Each algorithm should be fully implemented.• Each algorithm should generate stable and correct election results.• Each algorithm should be able to be tested. |
| Effort: Large |

2.

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| 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. |
| Acceptance Criteria: <ul style="list-style-type: none">• The system can run without error.• The system can automatically generate output file during the process.• The output file should be valid. |
| Effort: Medium |

3.

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| As the user, I want a CSV file to store all input information about candidates & ballots, so that I can run the election without previous knowledge of the elections other than the file name. |
| Acceptance Criteria: <ul style="list-style-type: none">• All input can be loaded.• The system can run without error.• The CSV file can store all information about the candidates and the ballots |
| Effort: small |

4

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| As an election official, I want a ballot to be considered as valid if and only if it has at least half of the |
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candidates ranked when using Droop Quota so that I can fulfill the requirement by my higher ups.

Acceptance Criteria:

- Valid ballots should be counted to the election.
- Invalid ballots should be filtered out and excluded from the election data.
- A ballot should either be valid or invalid, not other state.

Effort:

Medium

5.

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.

Acceptance Criteria:

- The system can be executed without error.
- User input should be valid
- The system structure can store massive amount of data.

Effort:

Medium

6.

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.

Acceptance Criteria:

- The system can run with error.
- User should have access for the election to vote
- The system process keep running to accept users' inputs until the end of voting process.

Effort:

Medium

7.

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.

Acceptance Criteria:

- The system can run without error.
- The user can include the input file name as an argument.
- 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.

Effort:

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| small |
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8.

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| 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. |
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| Acceptance Criteria: |
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| <ul style="list-style-type: none">• A running total for each candidate.• A state of winning and losing list• If droop is chosen, a update on each pass should be shown• If Plurality is chosen, tallies for each candidate should be updated |
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| Effort: Medium |
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