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Product backlog item 1: Access PO ballot data

As an election official,

I want to access PO only ballot and store data of it

So that I would know the PO ballots are being accessed and the data of them can be stored for later use.

Acceptance Criteria:

- Access PO ballot
- Process .csv file
- Able to read in a .csv file with a specific format
- Store ballot data

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Medium

PBI Author(s): Moyan Zhou

Product backlog item 2: PO election

As an election official,

I want add a new voting algorithm,

So that I determine a single winner based on the candidate receiving the most ballots with a fair coin toss if there is a tie or ties between candidates.

Acceptance Criteria:

- Generate correct single winner based on most ballots
- Handle tie(s)

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Large

PBI Author(s): Moyan Zhou

Product backlog item 3: Display PO stat result

As election official

I want to add the feature to display the election statistical data in detail. Let the audiences/election officers clearly see the result on the screen. (Include percentage of candidate receive etc)

Acceptance Criteria:

- Able to display detailed statistical data/information on the screen.
- The statistical data should be correct.
- Clearly show the election results (who won or lost)

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Extra Large

PBI Author(s) Yiming Yao

Product backlog item 4: Multiple Files

As election official,

I want to add the feature to accept multiple .csv files. In order to handle different balloting locations.

Acceptance Criteria:

- Accept multiple .csv files/ folders
- Validate file name
- Access correctly

Definition of Done

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Large

PBI Author(s) Yiming Yao

Product backlog item 5: GUI Window

As an election official

I want use mouse or arrow keys to select file in GUI window when prompting So that It is more friendly and convenient

Acceptance Criteria:

- A GUI window shows up to help user select file
- User is able to use mouse or arrow key

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Large

PBI Author(s): Hao Wu

Product backlog item 6 : Remove Invalid Ballots IRV

As election officials

I want remove invalid ballots

Because invalid ballots will affect the accuracy of result

Acceptance Criteria:

- Validate if ballots are following the format
- Invalid ballots are not going to be stored

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Ballot need to have at least half of the candidates ranked, rounded up from .5 to the Next higher integer
- Complete documentation
- Refactor and clean up the codes

Effort: medium

PBI Author(s): Hao Wu

Product backlog item 7 : Audit File for invalid ballots

As election officials

I want to generate audit file

Because I want to record for invalid ballots

Acceptance Criteria:

- The audit file records all the invalid ballots
- The file name is supposed to be invalidated_dateofelection.xxx

Definition of Done:

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Audit file contains all the invalid ballots, total number of ballots is correct
- The file name is supposed to be invalidated dateofelection.xxx
- Complete documentation
- Refactor and clean up the codes

Effort: medium

PBI Author(s): Hao Wu

Product backlog item 8 : Display table for IRV

As election officials

I want to see a table at the end of the election showing each round of the IRV So that we can see the number of votes the candidate has added/subtracted for the rounds.

Acceptance Criteria

- Table displayed successfully at the end of election with details of:
 - o candidates name
 - Party types
 - votes for each candidate for each rounds (added/subtracted)
 - total votes

Definition of Done

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Medium

PBI Author(s) Akar Kaung

Product backlog item 9 : Short report

As election officials

I want to see a short report

So that the election certification officials can see the overview of the election result.

Acceptance Criteria

- Generate short report file which includes:
 - o Date
 - Type of election
 - Candidates
 - o Number of seats if applicable
 - o Winner(s) of the election

Definition of Done

- Passes all unit tests
- Passes testing per acceptance criteria items
- Able to show features for demo
- Complete documentation
- Refactor and clean up the codes

Effort: Small

PBI Author(s) Akar Kaung