

## Committed BackLog Items (User Stories)

OPL & IRV works correctly

As an election official, I want both IRV and OPL algorithm works correctly in the voting system so that I could proceed with the election efficiently by using the voting system

Acceptance Criteria: The test cases could cover all edge cases. The output and behaviors of IRV & OPL have been thoroughly tested under these test cases and proved to be right.

Effort: Medium

## Not Started

Create test case for OPL

Create test case for IRV

Do unit testing

Write Documentation

## In Progress

## Done

Code OPL

Code IRV

## Committed BackLog Items (User Stories)

Check and remove invalid  
ballots from row data

As an election official, I need the system to auto-detect invalid ballots, which have at least half of the candidates ranked, from the input data. A file named "invalidated\_dataofelection.xxx" needed to be created to store the invalid ballots. So that the election process could work correctly align with our election rules

Acceptance Criteria: The system need to auto-detect all invalid ballot based on the requirement and then remove before election process. All removed invalid ballots need to be saved into file "invalidated\_dataofelection.xxx"

Effort: Medium

## Not Started

Code the detecting  
algorithm

Design the format of  
output file

Design the test case

Do unit testing

Write  
Documentation

## In Progress

## Done

## Committed BackLog Items (User Stories)

### Display result table

As an election official, I want to see a result table(contains number of votes each candidate added/subtracted for each round) on screen for IRV after the voting procedure. So that I can see the information of each round of the IR voting.

Acceptance Criteria: The table format should follow the form: [en.wikipedia.org/wiki/Instant-runoff-voting](https://en.wikipedia.org/wiki/Instant-runoff_voting). All information displayed in the table need to be correct

Effort: Large

## Not Started

Design the  
format of output  
information

Create test case

Do unit testing

Write  
Documentation

## In Progress

Understand  
sample logic

Design the User  
Interface

Implement  
displaying  
information code

## Done

## Committed BackLog Items (User Stories)

Auto detect info and format  
from CSV

As an election official, I want the system could auto-detected the ballot type and format(number of candidates ,number of seats, and election type etc.) from the CSV file. And the only thing I need to input is the file name. So that the system could be much more user friendly and conveniently

Acceptance Criteria: The system could successfully open the file based on the file name input by user. The system could properly and correctly detect the ballot info and format from the file.

Effort: Small

Not Started

In Progress

Done

Implement  
auto-detection  
code

Design the User  
Interface

Create test case

Do unit testing

Write  
Documentation

## Committed BackLog Items (User Stories)

Provide two ways to specify  
filename

As an election official, I hope the system provides me two ways to specify the input file: input through command line argument and input through a prompt request. So that I could choose the most convenient way to input file name

Acceptance Criteria: The program could accept command line as input and get file name from it. If the file name is already specified through command line, the system won't prompt a request for filename. The system would prompt a request for filename, if command line arguments don't include the filename. The system could load ballots properly and correctly using that filename

Effort: Small

## Not Started

## In Progress

Create test case

Do unit testing

Write  
Documentation

## Done

Enable GUI  
prompt of  
filename request,  
when not receive  
command line  
argument

Modify program  
Structure to  
receive command  
line argument

Disable GUI  
prompt of  
filename request,  
when receive  
command line  
argument

## Committed BackLog Items (User Stories)

Provide GUI for filename request

As an election official, When prompt filename request, I would prefer to type into a GUI instead of a command line. So that the system would look more fancy and user friendly

Acceptance Criteria: The system would prompt a request for filename through a graphic user interface(GUI), if command line arguments don't include the filename. The user could select file or type filename through that GUI to specify the ballots file. The system could load ballots properly and correctly using that filename

Effort: Small

Not Started

In Progress

Done

Implement the  
Graphic User  
Interface

Design the  
Graphic User  
Interface

Create test case

Do unit testing

Do system  
testing

Write  
Documentation