Team 13: Amy Nguyen (nguy2841), Kaley Schiffler (schif172), Hoin Jang (jang0064), William Henning (henni187)

Unique Testing Number: MF\_001

Team Member(s) Responsible: Amy

Inputs: opl1.csv, opl3.csv

#### Tests:

- 1. Test that OPL election will handle multiple files.
- 2. Test that header information is the same among all files excluding the ballot count.
- 3. Test that the generated file's ballot count will be the sum of all input ballots.
- 4. Test that OPL election with multiple files will produce the correct output.

# Outputs:

- 1. combinedFile.csv
- 2. Winners: Pike, Foster, Borg/Jones
- 3. The total number of ballots: 16
- 4. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/17/2022

The PBI, the Task Description (from Sprint Log): Multiple Files

Unique Testing Number: MF 002

Team Member(s) Responsible: Amy

Inputs: opl1.csv, opl2.csv

# Tests:

- 1. Test that OPL election will handle multiple files.
- 2. Test that if header information is different in multiple files excluding the ballot count, the election will not run due to an invalid selection of files.

# Outputs:

Terminal prints: "Invalid. Please check header information for each file."

Passed or Failed: Passed

Date: 04/17/2022

Unique Testing Number: MF\_003

Team Member(s) Responsible: Amy

Inputs: irv1.csv, irv1.csv (use the "same" file to test multiple file inputs)

#### Tests:

- 1. Test that IRV election will handle multiple files.
- 2. Test that header information is the same among all files excluding the ballot count
- 3. Test that the generated file's ballot count will be the sum of all input ballots.
- 4. Test that IRV election with multiple files will produce the correct output.
- 5. Generate the correct invalid ballot report

# Outputs:

- 1. combinedFile.csv
- 2. Winners: Rosen, Chou, Royce/Kleinberg
- 3. The total number of ballots: 12
- 4. Generated the correct invalid ballot report
- 5. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/18/2022

The PBI, the Task Description (from Sprint Log): Multiple Files

Unique Testing Number: MF\_004

Team Member(s) Responsible: Amy

Inputs: irv1.csv, irv2.csv

## Tests:

- 1. Test that IRV election will handle multiple files.
- 2. Test that if header information is different in multiple files excluding the ballot count, the election will not run due to an invalid selection of files.

#### Outputs:

Terminal prints: "Invalid. Please check header information for each file."

Passed or Failed: Passed

Date: 04/17/2022

Unique Testing Number: MF\_005

Team Member(s) Responsible: Amy

Inputs: irv1.csv, opl1.csv

Tests:

1. Test that the system will not run different election type files

Outputs:

Terminal prints: "Invalid. Please check header information for each file."

Passed or Failed: Passed

Date: 04/17/2022

The PBI, the Task Description (from Sprint Log): Multiple Files

Unique Testing Number: MF 006

Team Member(s) Responsible: Amy, Hoin, Will

Inputs: po1.csv, po6.csv

Tests:

- 1. Test that PO election will handle multiple files.
- 2. Test that header information is the same among all files excluding the ballot count.
- 3. Test that the generated file's ballot count will be the sum of all input ballots.
- 4. Test that PO election with multiple files will produce the correct output.

# Outputs:

- 1. combinedFile.csv
- 2. Winner: Pike
- 3. The total number of ballots: 7
- 4. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/18/2022

Unique Testing Number: MF\_007

Team Member(s) Responsible: Amy, Hoin

Inputs: po1.csv, po2.csv

### Tests:

- 1. Test that PO election will handle multiple files.
- 2. Test that if header information is different in multiple files excluding the ballot count, the election will not run due to an invalid selection of files.

# Outputs:

Terminal prints: "Invalid. Please check header information for each file."

Passed or Failed: Passed

Date: 04/18/2022

The PBI, the Task Description (from Sprint Log): PO .csv input handling

Unique Testing Number: IH\_001

Team Member(s) Responsible: Amy, Hoin

Inputs: po1.csv, po2.csv, po3.csv, po4.csv, po5.csv, po6.csv, po7.csv, po8.csv

### Tests:

1. Test that PO election will handle different .csv files

# Outputs:

- 1. Terminal prints for each .csv file run:
  - "../testing/<po1 through 8>.csv"
  - "Running PO" (PO is decided, but prints before PO system run)
  - "Running PO" (PO is decided, print after PO system runs)

Passed or Failed: Passed

Date: 04/18/2022

The PBI, the Task Description (from Sprint Log): IRV Valid Ballots

Unique Testing Number: IRV\_001

Team Member(s) Responsible: Kaley, William, Amy

Inputs: irv8.csv

# Tests:

- 1. Test that the IRV only uses valid ballots (where ballots have at least half of the candidates ranked)
- 2. Generate the correct invalid ballot report

### Outputs:

- 1. Winners: Chou and Royce
- 2. Correct terminal display
- 3. Generated the correct invalid ballot report
- 4. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/19/2022

The PBI, the Task Description (from Sprint Log): IRV Valid Ballots

Unique Testing Number: IRV 002

Team Member(s) Responsible: Kaley, William, Amy

Inputs: irv9.csv

#### Tests:

- 1. Test that the IRV only uses valid ballots (where ballots have at least half of the candidates ranked)
- 2. Generate the correct invalid ballot report

# Outputs:

- 1. "Running IRV"
- 2. Final Winner: Kleinberg
- 3. Votes: Kleinberg had 6
- 4. Generated the correct invalid ballot report
- 5. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/19/2022

Unique Testing Number: PO\_001

Team Member(s) Responsible: Hoin, William

Inputs: po1.csv

### Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test a "normal" PO election from (write up example)
- 3. Generate audit and media files

# Outputs:

1. Winner: Pike

2. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/18/2022

The PBI, the Task Description (from Sprint Log): PO election

Unique Testing Number: PO\_002

Team Member(s) Responsible: Hoin, William

Inputs: po2.csv

## Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test that all candidates got one vote (three-way tie)
- 3. Generate the correct audit and media files

# Outputs:

- 1. Pike/Foster/Deutsch (Depends on a coin flip)
- 2. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/18/2022

Unique Testing Number: PO\_003

Team Member(s) Responsible: Hoin, William

Inputs: po3.csv

#### Tests:

1. Test that the PO election runs a .csv file

- 2. Test that each candidate got two votes (four-way tie)
- 3. Generate the correct audit and media files

# Outputs:

1. Winner: Pike/Foster/Deutsch/Smith (Depends on a coin flip)

2. Generated the correct media and audit files

Passed or Failed: Passed

Date: 04/22/2022

The PBI, the Task Description (from Sprint Log): PO election

Unique Testing Number: PO\_004

Team Member(s) Responsible: Hoin, William

Inputs: po4.csv

## Tests:

1. Test that the PO election runs a .csv file

- 2. Test that all the ballots were voted for one candidate(Pike)
- 3. Generate the correct audit and media files

# Outputs:

1. Winner: Pike

2. Generated the correct audit and media files

Passed or Failed: Passed

Date: 04/22/2022

Unique Testing Number: PO\_005

Team Member(s) Responsible: Hoin, William

Inputs: po5.csv

### Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test that no ballot was provided
- 3. Generate the correct audit and media files

# Outputs:

- 1. Winner: Pike/Foster/Deutsch/Borg/Smith (Depends on a coin flip)
- 2. Generated the correct audit and media files

Passed or Failed: Passed

Date: 04/22/2022

The PBI, the Task Description (from Sprint Log): PO election

Unique Testing Number: PO\_006

Team Member(s) Responsible: Hoin, William

Inputs: po6.csv

## Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test only one valid ballot was provided
- 3. Generated the correct audit and media files

# Outputs:

1. Winner: Pike

2. Generate the correct audit and media files

Passed or Failed: Passed

Date: 04/22/2022

Unique Testing Number: PO\_007

Team Member(s) Responsible: Hoin, William

Inputs: po7.csv

### Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test that all candidates got one vote (five-way tie)
- 3. Generate the correct audit and media files

# Outputs:

- 1. Winner: Pike/Foster/Deutsch/Borg/Smith (Depends on a coin flip)
- 2. Generated the correct audit and media files

Passed or Failed: Passed

Date: 04/22/2022

The PBI, the Task Description (from Sprint Log): PO election

Unique Testing Number: PO\_008

Team Member(s) Responsible: Hoin, William

Inputs: po8.csv

# Tests:

- 1. Test that the PO election runs a .csv file
- 2. Test that a large number of ballots (10000) finished in a timely manner
- 3. Generate the correct audit and media files

# Outputs:

- 1. Winner: Pike
- 2. Generated the correct audit and media files

Passed or Failed: Passed

Date: 04/27/2022

The PBI, the Task Description (from Sprint Log): Memory Leak

Unique Testing Number: ML\_001

Team Member(s) Responsible: William, Kaley

Inputs: irv1.csv

Tests:

1. Test that the IRV election has no memory leaks with Valgrind

# Outputs:

- 1. In use at exit: 0 bytes in 0 blocks
- 2. All heap blocks were freed -- no leaks are possible
- 3. ERROR SUMMARY: 0 errors from 0 contexts (suppressed:0 from 0)

Passed or Failed: Passed

Date: 04/27/2022

The PBI, the Task Description (from Sprint Log): Memory Leak

Unique Testing Number: ML\_002

Team Member(s) Responsible: William, Kaley

Inputs: opl1.csv

Tests:

1. Test that the OPL election has no memory leaks with Valgrind

# Outputs:

- 1. In use at exit: 0 bytes in 0 blocks
- 2. All heap blocks were freed -- no leaks are possible
- 3. ERROR SUMMARY: 0 errors from 0 contexts (suppressed:0 from 0)

Passed or Failed: Passed

Date: 04/27/2022

The PBI, the Task Description (from Sprint Log): Memory Leak

Unique Testing Number: ML\_003

Team Member(s) Responsible: William, Kaley

Inputs: po1.csv

Tests:

1. Test that the PO election has no memory leaks with Valgrind

# Outputs:

1. In use at exit: 0 bytes in 0 blocks

- 2. All heap blocks were freed -- no leaks are possible
- 3. ERROR SUMMARY: 0 errors from 0 contexts (suppressed:0 from 0)

Passed or Failed: Passed

Date: 04/27/2022