

<b>Test 1:</b> IRV Audit File Checking
<b>Team Member Responsible:</b> Kenji Her
<b>Inputs:</b> <ol style="list-style-type: none"> <li>1. ArrayList of candidates</li> <li>2. ArrayList of ballots</li> <li>3. Audit file for results</li> <li>4. Number of seats for the election</li> </ol>
<b>Tests:</b> Test if the audit object is created and populated from the algorithm
<b>Outputs:</b> The system will print out the audit object's information if it contains any
<b>Passed or Failed:</b> Passed
<b>Date:</b> 4/22/22

<b>Test 2:</b> ReadCSV Invalid Ballot Checking
<b>Team Member Responsible:</b> Kenji Her
<b>Inputs:</b> <ol style="list-style-type: none"> <li>1. The IRV testing CSV file</li> </ol>
<b>Tests:</b> Test if the invalid ballots get filtered correctly, and that a file containing the invalid ballots is written
<b>Outputs:</b> The system will print out the valid ballots and invalid ballots, and it will create a file containing the invalid ballots
<b>Passed or Failed:</b> Passed
<b>Date:</b> 4/28/22

<b>Test 3:</b> ReadCSV PO Handling
<b>Team Member Responsible:</b> Daniel
<b>Inputs:</b> None, The path to the PO is declared in the test function
<b>Tests:</b> Test if the PO file is read correctly and the order of ballots is correct. It tests the new else if branch that was created in ReadCSV
<b>Outputs:</b> The test will print out the order of the ballots and will need to be manually compared with expected output.
<b>Passed or Failed:</b> Passed
<b>Date:</b> 4/29/22

<b>Test 4:</b> IRV setup
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> The ballots data structure from the readCSV method.
<b>Tests:</b> Test to check if the ballots and the order are set up with the correct amount of candidates and votes.
<b>Outputs:</b> It is expected that each candidate has a correct number of ballots with different order of choice.
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22

<b>Test 5: IRV Result</b>
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> Path to the ballot file
<b>Tests:</b> The test will make sure that the output of running IRV is correct. The test works by running the main driver and comparing the output to what is expected
<b>Outputs:</b> The results of all of the voting rounds are displayed
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22

<b>Test 6: IRV 100,000 ballot</b>
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> Path to the ballot file with 100,000 ballots
<b>Tests:</b> The test will make sure the IRV algorithm can run 100,000 ballots in under 8 minutes
<b>Outputs:</b> The results of all of the voting rounds are displayed
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22

<b>Test 7: IRV Tie-breaker</b>
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> Path to the ballot file with a tie
<b>Tests:</b> The test is checking if the algorithm is working correctly for tiebreakers.
<b>Outputs:</b> Each time one out of the last two candidates will be a winner and one will be a loser, but not both.
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22

<b>Test 8:</b> PO Algorithm Constructor
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> Path to the ballot file for the PO election
<b>Tests:</b> Test to check if the constructor for the PO class is working and the ballots and the order are set up with the correct amount of candidates and votes.
<b>Outputs:</b> Each candidate has the correct number of ballots.
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22

<b>Test 9:</b> PO Algorithm Result
<b>Team Member Responsible:</b> Rick
<b>Inputs:</b> Path to the ballot file for the PO election
<b>Tests:</b> The test will make sure that the output of the running PO algorithm is correct. The test works by running the main driver and comparing the output to what is expected
<b>Outputs:</b> The winner is correctly chosen
<b>Passed or Failed:</b> Passed
<b>Date:</b> 5/1/22