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| **Project Name: Project 1: Voting System Team#08** | |
| **Test Stage: Unit \_\_ System \_\_X** | **Test Date: 3/24/2023** |
| **Test Case ID#: SystemIR\_03** | **Name(s) of Testers: Ugtakhbayar Battulga** |
| **Test Description:**Testing the whole system with an IR election input ballot “IRElectionTests\_Single.csv”. The csv is an instance of an IR election that has only one candidate and all three ballots vote for that candidate since it is required for each ballot to rank at least one candidate. | When running this test all files are in the same working directory which can be found in Project1/src. The csv files can be found in Project1/testing. The csv file used in this specific test is called IRElectionTests\_Single.csv |
| **Automated: yes\_\_\_ no \_X\_\_** |  |
| **Results: Pass \_\_\_\_X\_ Fail\_\_\_\_\_\_\_\_** |  |
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| **Preconditions for Test:**  An IRElection csv file is required to be in the Project1/testing directory titled “IRElectionTest\_Single.csv”. Makefile was called and exe files are ready to call. | |

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| **Step**  **#** | **Test Step**  **Description** | **Test**  **Data** | **Expected**  **Result** | **Actual**  **Result** | **Notes** |
| 1 | Running the system using  ./2-TypeElection.exe with the argument ../testing/IRElecitonTests\_Single.csv | ../testing/IRElecitonTests\_Single.csv | N/A | N/A | Running with command line argument. System is given the file name |
| 3 | Entering the date of the IR election in format MMDDYYYY | Date in 03262003 format | N/A | N/A | Sets the date used for the audit file. |
| 4 | Election runs. | ../testing/IRElecitonTests\_single.csv | Expected results can be found below for both the terminal and the audit file | Actual results matched the expected results. Checked manually | The expected results and the actual results were manually checked and matched. Expected outputs for the sudit file and the terminal output can be found below. |

**Post condition(s) for Test:**

Audit file “03262003IR.txt” is created and results of the Election are printed to the terminal.

Test Passed

expectedResult for audit file:

      "IRElection\n"

      "Number of Candidates: 1\n"

      "Candidate 1: A\n"

      "Number of ballots: 3\n"

      "Ballot ID: 1 Ballot Info: 1\n"

      "Ballot ID: 2 Ballot Info: 1\n"

      "Ballot ID: 3 Ballot Info: 1\n"

      "Counting Ballots\n"

      "Ballot #1 went to Candidate #1\n"

      "Ballot #2 went to Candidate #1\n"

      "Ballot #3 went to Candidate #1\n"

      "Candidate #1 received 3 vote(s)\n"

      "Majority Found in first round\n"

      "Winner is: A with 3 Votes\n"

expectedResult for terminal output:

      "Election type: IR\n"

      "Number of candidates: 1\n"

      "Number of ballots cast: 3\n"

      "IR Election results in last round: \n"

      "Number of votes for candidate number 1: 3 (100.00%)\n"

      "Winner: A\n"