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| **Project Name: Project 1: CompuVote Team #19** | |
| **Test Stage:** System | **Test Date:** 3/14/21 |
| **Test Case ID #:** test\_422\_05\_main\_06\_testIrStairsTime | **Name(s) of Testers:** Nikunj Chawla |
| **Test Description:**  Tests that main runs under 8 minutes for an IR file with 100,000 ballots arranged in a manner to be quite inefficient.  This test only runs if RUN\_TIME\_TESTS is set to true in VotingSystemRunnerTest.java and is by default set to false.  The test election file is actually generated as Project1/testing/test-resources/votingSystemRunnerTest/irStairsTest.txt and can be very large (up to 10 gigabytes in size). So, ensure you have suitable disk space for a 100,000-line file and note that it will take some time to run. (The generated file is deleted after the completion of the test.)  The first 50% of candidates are assigned to candidate 1. The next 25% of candidates are assigned to candidate 2 with candidate 1 after. The next 12.5% of candidates are assigned to candidate 3 with candidate 2 after and candidate 1 after that. This continues until there are no more ballots to assign. |  |
| **Automated:** Yes | **Indicate where you are storing the tests (what file) and the name of the method/functions being used:**  Test file: Project1/src/test/org/team19/VotingSystemRunnerTest.java  Test method: testIrStairsTime  Method/constructor being tested: main from Project1/src/main/org/team19/VotingSystemRunner.java |
| **Results:** Pass |  |
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| **Preconditions for Test:**  The output test file must be able to be written to, and the written output file must be able to be read from | |

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| **Step**  **#** | **Test Step**  **Description** | **Test**  **Data** | **Expected**  **Result** | **Actual**  **Result** | **Notes** |
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| 1 | Generate the IR election file, time the running of main with the generated IR election file, ensure that it runs under 8 minutes, and delete the generated file | “Project1/testing/test-resources/votingSystemRunnerTest/irStairsTest.txt” | The time to run the file is under 8 minutes | The time to run the file is under 8 minutes |  |

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

Prints the runtime for the test to the console