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| **Project Name: Project 1: CompuVote Team#19** | |
| **Test Stage:** Unit | **Test Date:** 3/27/21 |
| **Test Case ID #:** test\_311\_07\_runElection\_01\_testRunElectionMajority | **Name(s) of Testers:** Aaron Kandikatla |
| **Test Description:**  Given a standard IR election with candidates, parties, and ballots, where the election results in a majority winner, tests that the runElection algorithm works and outputs the expected audit file and report file  Note: If the test fails, the files generated are not deleted at the end. |  |
| **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/InstantRunoffSystemTest.java  Test method: testRunElectionMajority  Method/constructor being tested: runElection from Project1/src/main/org/team19/InstantRunoffSystem.java |
| **Results:** Pass |  |
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| **Preconditions for Test:**  There exists a file called run\_election\_majority\_audit\_expected.txt and another file called run\_election\_majority\_report\_expected.txt in testing/test-recources/instantRunoffSystem/ which represents the expected outputs and the system is able to open and read the files. | |

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| **Step**  **#** | **Test Step**  **Description** | **Test**  **Data** | **Expected**  **Result** | **Actual**  **Result** | **Notes** |
|  |  |  |  |  |  |
| 1 | Tests to check that the winner of the election is Rosen who should with by having a majority of 5/9 votes at the end after eliminations in the audit file | **Ballots (9):**  b1 = [Rosen, Royce, Kleinberg, Chou]  b2 = [Rosen, Chou]  b3 = [Rosen, Kleinberg, Chou]  b4 = [Chou, Rosen, Kleinberg, Royce]  b5 = [Chou, Royce]  b6 = [Royce]  b7 = [Royce]  b8 = [Kleinberg, Rosen]  b9 = [Kleinberg]  **Candidates (4):**  Rosen: b1, b2, b3, b9  Kleinberg: b8  Chou: b4, b5  Royce: b6, b7 | run\_election\_majority\_audit\_expected.txt matches the audit file generated by runElection | run\_election\_majority\_audit\_expected.txt matches the audit file generated by runElection | N/A |
| 1 | Tests to check that the winner of the election is Rosen who should with by having a majority of 5/9 votes at the end after eliminations in the report file | **Ballots (9):**  b1 = [Rosen, Royce, Kleinberg, Chou]  b2 = [Rosen, Chou]  b3 = [Rosen, Kleinberg, Chou]  b4 = [Chou, Rosen, Kleinberg, Royce]  b5 = [Chou, Royce]  b6 = [Royce]  b7 = [Royce]  b8 = [Kleinberg, Rosen]  b9 = [Kleinberg]  **Candidates (4):**  Rosen: b1, b2, b3, b9  Kleinberg: b8  Chou: b4, b5  Royce: b6, b7 | run\_election\_majority\_report\_expected.txt matches the report file generated by runElection | run\_election\_majority\_report\_expected.txt matches the report file generated by runElection | N/A |

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

N/A