

Team09  
System Tests

Note: In accordance to Professor Shana Watters's, every input are flawless!

Case 1: (Plurality)

Order (top-bottom): minimal edge case, middle case, maximum edge case

Pre condition	Run in terminal ./execu target_file.csv
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File content	Input	System	Output
A,B,C,D,E,F 1,2,3,,, 1,,,,, 1,2,3,,, ,,1,, ,,,1 1,2,3,,	# of candidates: 6 # of seats: 1 # of ballots: 6 Sorting choice: Plurality	<ul style="list-style-type: none"> <li>Distribute votes to each candidates.</li> <li>Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 1</li> </ul>	Win List: A Loser List: B,C,D,E,F
A,B,C,D,E,F 1,2,3,,, ,,,1,3,2 1,,,2,3 ,,,1,, 1,3,2,,, ,,,1	# of candidates: 5 # of seats: 3 # of ballots: 6 Sorting choice: Plurality	<ul style="list-style-type: none"> <li>Distribute votes to each candidates.</li> <li>Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 3</li> </ul>	Winner List: A,C,F Loser List: B,D,E,
A,B,C,D,E,F 1,2,3,4,5,6 2,3,1,6,4,5 1,6,5,3,4,2 4,5,3,2,6,1 5,4,6,2,1,3	# of candidates: 6 # of seats: 6 # of ballots: 6 Sorting choice: Plurality	<ul style="list-style-type: none"> <li>Distribute votes to each candidates.</li> <li>Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 6</li> </ul>	Winner List: A,F,C,E,D ,B Loser List:

Post condition	Audit file is generated Report file is generated Result file is generated Audit file contains winner and loser list and their associated votes Report file contains a short report of the election
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	Result file contains the winners and losers list
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## Case 2: (Droop)

Order (top-bottom): minimal edge case, middle case, maximum edge case

Pre condition	Run in terminal ./execu target_file.csv
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File content	Input	System	Output
A,B,C,D,E 1,2,3,4,5,6 1,,2,,3, 1,2,,3,, ,,1,,, 1,2,3,,,4	# of candidates: 6 # of seats: 1 # of ballots:6 Sorting choice	<ol style="list-style-type: none"> <li>1. Execute true shuffle (= distribute each ballot into 6 piles, then stack each, then split it in half and put the top half on the bottom and the bottom on top)</li> <li>2. Calculate the droop quota: <math>(5/1+1)+1</math></li> <li>3. Distribute votes to each candidates.</li> <li>4. Check if any candidates reach droop.</li> <li>5. If reach droop, declare winner and loser in first round and distribute loser's votes to the other candidates.</li> <li>6. Repeat step 3 &amp; 4 until winner seats is filled</li> </ol>	Winner List: A Loser List: B,C,D,E,F
A,B,C,D,E 1,2,3,,, ,,,1,3,2 1,,,2,3 ,,,1,, 1,3,2,,,	# of candidates: 5 # of seats: 3 # of ballots:5 Sorting choice	<ol style="list-style-type: none"> <li>1. Execute true shuffle (= distribute each ballot into 6 piles, then stack each, then split it in half and put the top half on the bottom and the bottom on top)</li> </ol>	Winner List: A,C Loser List: B,D,E,F

,,,,,1		<ol style="list-style-type: none"> <li>Calculate the droop quota: <math>(5/3+1)+1</math></li> <li>Distribute votes to each candidates.</li> <li>Check if any candidates reach droop.</li> <li>If reach droop, declare winner and loser in first round and distribute loser's votes to the other candidates.</li> <li>Repeat step 3 &amp; 4 until winner seats is filled</li> </ol>	
A,B,C,D,E,F 1,2,3,,, 2,3,1,,, ,1,,3,, ,,3,2,,1 ,,,2,1,3 2,3,4,1,5,6	# of candidates: 6 # of seats: 6 # of ballots:6 Sorting choice	<ol style="list-style-type: none"> <li>Execute true shuffle (= distribute each ballot into 5 piles, then stack each, then split it in half and put the top half on the bottom and the bottom on top)</li> <li>Calculate the droop quota: <math>(6/6+1)+1</math></li> <li>Distribute votes to each candidates.</li> <li>Check if any candidates reach droop.</li> <li>If reach droop, declare winner and loser in first round and distribute loser's votes to the other candidates.</li> <li>Repeat step 3 &amp; 4 until winner seats is filled</li> </ol>	Winner List: A,F,C,E,D,B Loser List:

Post condition	Audit file is generated Report file is generated Result file is generated Audit file contains winner and loser list and their associated votes Report file contains a short report of the election Result file contains the winners and losers list
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