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

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	● Distribute votes to each candidates. ● Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 1	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: 6 # of seats: 3 # of ballots: 6 Sorting choice: Plurality	● Distribute votes to each candidates. ● Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 3	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 1,2,3,4,5,6	# of candidates: 6 # of seats: 6 # of ballots: 6 Sorting choice: Plurality	● Distribute votes to each candidates. ● Find the number of candidates with the most ballots assigned to based on the number of seats; in this case: 6	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

Case 2: (Droop)
Order (top-bottom): minimal edge case, middle case, maximum edge case

Pre condition	Run in terminal ./execu target_file.csv

File content	Input	System	Output
A,B,C,D,E,F 1,2,3,4,5,6 1,,2,,3, 1,2,,3,, ,,1,,, 1,2,3,,,4 2,3,1,,,	# of candidates: 6 # of seats: 1 # of ballots:6 Sorting choice: Droop	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) 2. Calculate the droop quota: (6/1+1)+1 3. Distribute votes to each candidates. 4. Check if any candidates reach droop. 5. If reach droop, declare winner and loser in first round and distribute loser's votes to the other candidates. 6. Repeat step 3 & 4 until winner seats is filled	Winner List: A Loser List: B,C,D,E,F
A,B,C,D,E,F 1,2,3,,, ,,,1,3,2 1,,,2,3 ,2,3,1,, 1,3,2,,, ,,,2,3,1	# of candidates: 6 # of seats: 3 # of ballots:6 Sorting choice: Droop	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) 2. Calculate the droop quota: (6/3+1)+1 3. Distribute votes to each candidates. 4. Check if any candidates reach droop. 5. If reach droop, declare winner and loser in first	Winner List: A,C Loser List: B,D,E,F

		round and distribute loser's votes to the other candidates. 6. Repeat step 3 & 4 until winner seats is filled	
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: Droop	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) 2. Calculate the droop quota: (6/6+1)+1 3. Distribute votes to each candidates. 4. Check if any candidates reach droop. 5. If reach droop, declare winner and loser in first round and distribute loser's votes to the other candidates. 6. Repeat step 3 & 4 until winner seats is filled	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