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 1,,,, ,,,,, 1,,,, ,,1,, ,,,,,	# of candidates: 5 # of seats: 1 # of ballots: 5 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: 2	Win List: A Loser List: B,C,D,E
A,B,C,D,E 1,,,, ,,1,2 1,,2, ,,1,, 1,2,,	# of candidates: 5 # of seats: 2 # of ballots: 5 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: 2	Winner List: A,C Loser List: B,D,E
A,B,C,D,E 1,2,3,4,5 2,3,1,5,4 1,5,4,2,3 4,1,5,3,1 5,4,3,2,1	# of candidates: 5 # of seats: 5 # of ballots: 5 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: 5	Winner List: A,E,D,C,B Loser List:

Post condition	Audit file is generated

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 1,,,, ,,,,, 1,,,, ,,1,, ,,,,,	# of candidates: 5 # of seats: 1 # of ballots:5 Sorting choice	1. 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) 2. Calculate the droop quota: (5/1+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: E,D,B,C
A,B,C,D,E 1,,,, ,,1,2 1,,2, ,,1,, 1,2,,	# of candidates: 5 # of seats: 3 # of ballots:5 Sorting choice	1. 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) 2. Calculate the droop quota: (5/3+1)+1 3. Distribute votes to each candidates. 4. Check if any candidates reach droop.	Winner List: A,C Loser List: B,D,E

		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	
A,B,C,D,E 1,2,3,4,5 2,3,1,5,4 1,5,4,2,3 4,1,5,3,1 5,4,3,2,1	# of candidates: 5 # of seats: 5 # of ballots:5 Sorting choice	1. 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) 2. Calculate the droop quota: (5/5+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,E,D,C,B Loser List:

Post condition	Audit file is generated