Pro	ject Name: Proj	ect 1: Voting System			Team#21
Test	Stage: Unit _X_	System		Test Date: 3/15/18	
Test	Case ID#: Ballot_ Description: Test to and BallotID	getterTest_1 the Ballot Constructor, and	the setter for	Name(s) of Testers: Pinki Wo	ong
Auto	omated: yes_X	no		Indicate where are you storing name of the method/functions	
	lts: Pass	Fail X			
Preconstant Step	Test Step	Create an instance of Ballo	Expected	Actual	
» #	Description	Data	Result	Result	Notes
	Test the getBallot()	Expected to return the int[] b	Pass	Fail	The getter function has not been implemented yet.
2	Test the getBallotID()	Expected to return the ballot ID	Pass	Fail	The getter function has not been implemented yet.
3					
4					
			<u> </u>		L
Post c	ondition(s) for Test	t:			
[/A					

Proj	ect Name: Proje	ect 1: Voting System			Team#21
Test	Stage: Unit _X_	System		Test Date: 3/18/18	
Test	Case ID#: Ballot_s Description: Test to and BallotID	getterTest_2 the Ballot Constructor, and	the setter for	Name(s) of Testers: Yiwen W	an
Auto	omated: yes X	no		Indicate where are you storing name of the method/functions	
	lts: Pass X	Fail			
Step	Test Step	Create an instance of Ballo	Expected	Actual	
# •	Description	Data	Result	Result	Notes
1	Test the getBallot()	Expected to return the int[] b	Pass	Pass	The getter function has been implemented.
2	Test the getBallotID()	Expected to return the ballot ID	Pass	Pass	The getter function has been implemented.
3					
4					
\dashv					
Post c	ondition(s) for Test	t:			
J/A					

Project Name: Proje	ct 1: Voting Sy	stem	Team#21
Test Stage: Unit _X_	System	Tes	est Date: 3/15/18
Test Case ID#: Ballot_ Test Description: Test t Ballot and BallotID			ame(s) of Testers: Pinki Wong
Automated: yes_X	no		ndicate where are you storing the tests (what file) and the ame of the method/functions being used.
Results: Pass	Fail X	_	
Preconditions for Test:	Create a Ballot inst	tance.	
Ston Tost Ston	Tost	Ewnooted	Aatual

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is an int[]. Expected to update the ballot using the input	Pass		The setter function has not been implemented yet.
2		Input data is an int. Expected to update the ballot ID using the input.	Pass		The setter function has not been implemented yet.
3					
4					

ballot.getBallotID should now be equal to the new ballotID put in the setBallotID parameter ballot.getBallot should now be equal to the new ballot put in the setBallot parameter

Project Name: Project 1: Voting System	Team#21
Test Stage: Unit _X_ System	Test Date: 3/18/18
Test Case ID#: Ballot_setterTest_2 Test Description: Test the Ballot Constructor, and the setter for Ballot and BallotID	Name(s) of Testers: Yiwen Wan
Automated: yes X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.
Results: Pass X Fail	
Preconditions for Test: Create a Ballot instance.	

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is an input[]. Expected to update the ballot using the input	Pass		The setter function has not been implemented yet.
2		Input data is an int. Expected to update the ballot ID using the input.	Pass		The setter function has not been implemented yet.
3					
4					

ballot.getBallotID should now be equal to the new ballotID put in the setBallotID parameter ballot.getBallot should now be equal to the new ballot put in the setBallot parameter

Project Name: Project 1: Voting System	Team#21
Test Stage: Unit _X_ System	Test Date: 3/15/18
Test Case ID#: Candidate_setterTest_1 Test Description: Test the Candidate Constructor, and the setter for name, vote, and vote order	Name(s) of Testers: Pinki Wong
Automated: yes X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.
Results: Pass Fail X	
Preconditions for Test: Create a candidate instance.	
Sten Test Sten Test Expected	Actual

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is an integer. Expected to add the unput to the voteOrder ArrayList	Pass		The setter function has not been implemented yet.
2		increment total number of votes the candidate gets by	Pass		The setter function has not been implemented yet.
	Test the setVote()	one			
3					
4					

candidate.getVote should now be larger than the original vote by 1 candidate.getVoteOrder should have a new voteOrder added to the end of the voteOrder ArrayList

Test Date: 3/16/18 Name(s) of Testers: Yao Zeng	
Name(s) of Testers: Yao Zeng	
Name(s) of Testers: Yao Zeng	
Indicate where are you storing the tests (what file) and the name of the method/functions being used.	

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is an integer. Expected to add the unput to the voteOrder ArrayList		Pass	The setter function has been implemented.
2		increment total number of votes the candidate gets by	Pass	Pass	The setter function has been implemented.
	Test the setVote()	one			
3					
4					

Post	condition(s)	for Test:

candidate.getVote should now be larger than the original vote by 1 candidate.getVoteOrder should have a new voteOrder added to the end of the voteOrder ArrayList

Team#21
Test Date: 3/15/18
Name(s) of Testers: Pinki Wong
Indicate where are you storing the tests (what file) and the name of the method/functions being used.

Step	Test Step	Test	Expected	Actual	
# -	Description	Data	Result	Result	Notes
1	Test the getName ()	Expected to return the name of candidate	Pass		The getter function has not been implemented yet.
2	Test the getVote()	Expected to return the total vote of candidate	Pass		The getter function has not been implemented yet.
3	Test the getVoteOrder()	Expected to return the ArrayList of voteOrder	Pass	Fail	The getter function has not been implemented yet.
4					

N/A

Project Name: Project 1: Voting System	Team#21
Test Stage: Unit _X_ System	Test Date: 3/15/18
Test Case ID#: Candidate_getterTest_2 Test Description: Test the CandidateConstructor, and the getter for Candidate name, vote, and vote order	Name(s) of Testers: Yao Zeng
Andamada la sur V	Indicate where are you storing the tests (what file) and the name of the method/functions being used.
Automated: yes_X no	
Results: Pass X Fail	
Preconditions for Test: Create a candidate instance	

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Expected to return the name of candidate	Pass		The getter function has been implemented.
2		Expected to return the total vote of candidate	Pass		The getter function has been implemented.
3		Expected to return the ArrayList of voteOrder	Pass		The getter function has been implemented.
4					

N/A

Proje	ect Name: Projec	et 1: Voting System			Team#21
Test	Stage: Unit _X_	System		Test Date: 3/15/18	
	•	_runAlgorithmTest_1 the runAlgorithm() is wo	orking.	Name(s) of Testers: Pinki Wo	ong
Auto	mated: yes X	no		Indicate where are you storin name of the method/functions	· ,
	lts: Pass	FailX			
empty	electedCandidates a	Create a Ballot ArrayList, nd nonElectedCandidate n an ArrayList for compa	ArrayList.	rrayList, Candidate ArrayList, and	l plurality instance. Also, create
Step	Test Step	Test	Expected	Actual	Nistan
1	Description Test the runAlgorithm()	No input data. Expected to store winner in electedCandidate and others in nonelectedCandidate	Result Pass	Result Fail	Notes The runAlgorithm function has not been implemented yet.
2	<u> </u>				

electedCandidates and nonElectedCandidate should contains the expected output.

Proje	ect Name: Projec	et 1: Voting System			Team#21	
Test	Stage: Unit _X_	System		Test Date: 3/16/18		
Test Case ID#: Plurality_runAlgorithmTest_2 Test Description: Test if the runAlgorithm() is working.			orking.	Name(s) of Testers: Yao Zeng		
Auto	mated: yes X	no		Indicate where are you storin name of the method/functions	· , , , , , , , , , , , , , , , , , , ,	
	lts: Pass	FailX				
empty	electedCandidates a	Create a Ballot ArrayList, nd nonElectedCandidate n an ArrayList for compa	ArrayList.	rrayList, Candidate ArrayList, and	l plurality instance. Also, create	
Step	Test Step	Test	Expected	Actual		
1	Description Test the runAlgorithm()	No input data. Expected to store winner in electedCandidate and others in nonelectedCandidate	Result Pass	Result Fail	Notes Wrong candidate was stored in electedCandidate list	
2	<u>5</u> ()					
_						

electedCandidates and nonElectedCandidate should contains the expected output.

roj	ect Name: Projec	et 1: Voting System			Team#21	
Test	t Stage: Unit _X_	System		Test Date: 3/18/18		
Test Case ID#: Plurality_runAlgorithmTest_3 Test Description: Test if the runAlgorithm() is working.				Name(s) of Testers: Yiwen Wan		
Auto	omated: yes_X	no		Indicate where are you storing name of the method/functions	ng the tests (what file) and the s being used.	
	ılts: Pass X	Fail				
mpty		nd nonElectedCandidate	ArrayList.	ayList, Candidate ArrayList, and	d plurality instance. Also, create	
				Actual		
Step #	Test Step Description	Test Data	Expected Result	Actual Result	Notes	
Step	Test Step	Test	Expected		Notes N/A	
Step	Test Step Description	Test Data No input data. Expected to store winner in electedCandidate and others	Expected Result	Result		

electedCandidates and nonElectedCandidate should contains the expected output.

Project Name: Project 1: Voting System	Team#21		
Test Stage: Unit _X_ System	Test Date: 3/15/18		
Test Case ID#: STV_runAlgorithmTest_1 Test Description: Test if the runAlgorithm(int) is working.	Name(s) of Testers: Pinki Wong		
Automated: yes X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.		
Results: Pass Fail X			
Preconditions for Test: - Create a Ballot ArrayList, voteOrder ArrayList, Candidat - Create empty electedCandidates, nonElectedCandidate a - Store the expected output in an ArrayList for comparing a - Droop Quota is caluculated.	and invalidateBallots ArrayList.		

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is the calculated droop quota. Expected to store winner in electedCandidate and others in nonelectedCandidate. All invalidated ballots are expected to be stored in the invalidateBallots	Pass		The runAlgorithm function has not been implemented yet.
2					
3					
4					

Post	condition(s	s) for Test:

Project Name: Project 1: Voting System	Team#21
Test Stage: Unit _X_ System	Test Date: 3/16/18
Test Case ID#: STV_runAlgorithmTest_2 Test Description: Test if the runAlgorithm(int) is working.	Name(s) of Testers: Yao Zeng
Automated: yes X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.
Results: Pass Fail X	
Preconditions for Test: - Create a Ballot ArrayList, voteOrder ArrayList, Candida - Create empty electedCandidates, nonElectedCandidate a - Store the expected output in an ArrayList for comparing - Droop Quota is caluculated.	and invalidateBallots ArrayList.
Ston Tost Ston Tost Exmented	Actual

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is the calculated droop quota. Expected to store winner in electedCandidate and others in nonelectedCandidate. All invalidated ballots are expected to be stored in the invalidateBallots	Pass		Wrong candidates are stored in electedCandidates and nonElectedCandidates
2	-				
3					
4					

Post	condition((s) for Test:

Proje	ect Name: Projec	t 1: Voting System		Team#21		
Test	Stage: Unit _X_	System		Test Date: 3/18/18		
	Case ID#: STV_run Description: Test if	AlgorithmTest_3 the runAlgorithm(int) is	working.	Name(s) of Testers: Yiwen V	Wan	
Auto	mated: yes X_ n	0		Indicate where are you storing name of the method/function	ng the tests (what file) and the as being used.	
		FailX				
Prec	onditions for Test:	wlist wataOrdar Arrayl	ist Candidat	e ArrayList, and STV instance.		
_				nd invalidateBallots ArrayList.		
_	1 .	utput in an ArrayList for		<u> </u>		
_	Droop Quota is calu					
Step	Test Step	Test	Expected	Actual		
#	Description	Data	Result	Result	Notes	
		Input data is the calculated droop quota. Expected to store winner in elected Candidate and others.	Pass	Fail	Correct candidates but wrong number of votes. No invalidateBallots.	

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1	Test the runAlgorithm(int)	Input data is the calculated droop quota. Expected to store winner in electedCandidate and others in nonelectedCandidate. All invalidated ballots are expected to be stored in the invalidateBallots	Pass		Correct candidates but wrong number of votes. No invalidateBallots.
2					
3					
4					

Project Name: Project 1: Voting System	Team#21		
Test Stage: Unit _X_ System	Test Date: 3/19/18		
Test Case ID#: STV_runAlgorithmTest_3 Test Description: Test if the runAlgorithm(int) is working.	Name(s) of Testers: Yao Zeng		
Automated: yes_X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.		
Results: Pass Fail X			
Preconditions for Test: - Create a Ballot ArrayList, voteOrder ArrayList, Candidate - Create empty electedCandidates, nonElectedCandidate ar - Store the expected output in an ArrayList for comparing re - Droop Quota is caluculated.	nd invalidateBallots ArrayList.		

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1		Input data is the calculated droop quota. Expected to store winner in electedCandidate and others in nonelectedCandidate. All invalidated ballots are expected to be stored in the invalidateBallots	Pass		Candidates are stored in correct ArrayList with correct number of votes. InvalidateBallots is not working.
2	great the run ingentium (mit)	mi vandame Danie vo			
3					
4					

Post	condition	$\overline{(s)}$	for	Test:

Proje	ect Name: Project	t 1: Voting System		Team#21		
Test	Stage: Unit _X_	System		Test Date: 3/20/18		
Test Case ID#: STV_runAlgorithmTest_4 Test Description: Test if the runAlgorithm(int) is working.			Name(s) of Testers: Yiwen Wan			
Auto	mated: yes X n	0			re you storing the tests (hod/functions being used	
	lts: Pass X	Fail				
- - -	Create empty elected	yList, voteOrder ArrayLlCandidates, nonElectedutput in an ArrayList for culated.	dCandidate ar	nd invalidateBallots		
Step #	Test Step Description	Test Data	Expected Result	Actual Result		Notes
	Test the runAlgorithm(int)	Input data is the calculated droop quota. Expected to store winner in electedCandidate and others in nonelectedCandidate. All invalidated ballots are expected to be stored in the invalidateBallots	Pass	Pass		N/A.
2						
3						
4						

Project Name: Project 1: Voting System				Team#21		
Test S	tage: Unit _X_	System		Test Date: 3/15/18		
	Test Case ID#: STV_DQTest_1 Test Description: Test if the calculateDQ() is working.			Name(s) of Testers: Pinki Wong		
Autom	ated: yes X no			Indicate where are you storing name of the method/functions	,	
	• = =					
- I Step T	Droop Quota is caluc Test Step Description	tput in an int variable fulated. Test Data	Expected Result	Actual Result	Notes	
_	st the calculateDQ(int,int)	Input data are the number of ballots and number of seats		Fail	The calculateDQ function has not been implemented yet.	
3 4						
	ndition(s) for Test: ut should be equal to	the expected output.				

'roject Na	ame: Projec	et 1: Voting System		Team#21		
Test Stage	: Unit _X_	System	Te	st Date: 3/16/18		
Test Case ID#: STV_DQTest_2 Test Description: Test if the calculateDQ() is working.				Name(s) of Testers: Yiwen Wan		
Automated	l: ves X	no		licate where are you storin me of the method/functions	g the tests (what file) and the being used.	
Results: P		Fail				
- Creat				ayList, and STV instance.		
CreatStore	te a Ballot Arra	output in an int variable f				
- Creat - Store - Droo	te a Ballot Arra e the expected of Quota is calc	Dutput in an int variable fuculated. Test	Cor comparing result	Actual	Notes	
- Creat - Store - Droo tep Test S # Descr	te a Ballot Arra e the expected of p Quota is calu	Test Data Input data are the number of	Expected Result	its.	Notes N/A	
- Creat - Store - Droo Step Test S # Descr	te a Ballot Arra te the expected of Quota is calu Step ription	Test Data Input data are the number of	Expected Result	Actual Result		
- Creat - Store - Droo Step Test 9 # Descr	te a Ballot Arra te the expected of Quota is calu Step ription	Test Data Input data are the number of	Expected Result	Actual Result		

The output should be equal to the expected output.

Proj	ect Name: Projec	t 1: Voting System	1	Team#21		
Test	Stage: Unit _X_	System		Test Date: 3/15/18		
Test Case ID#: Voting_shuffleTest_1 Test Description: Test if the shuffle() is working.				Name(s) of Testers: Pinki Wong		
Auto	omated: yes_X n	10		Indicate where are you storing name of the method/function	ng the tests (what file) and the s being used.	
	ılts: Pass X	Fail				
Prec	Create a Boolean op	yList and a Voting instation for shuffle output in an ArrayList <i< th=""><th></th><th>mparing results.</th><th></th></i<>		mparing results.		
Step #	Test Step Description	Test Data	Expected Result	Actual Result	Notes	
1	Test the shuffle(boolean)	Input data is Boolean to indicate to shuffle or not	Pass	Pass	Using the built-in shuffle	
2	, ,					
3						
4						
	•	•	•	•	· ·	

The order of the arrayList has be shuffle and has a different order

Project Name: Project 1: Voting System	Team#21		
Test Stage: Unit _X_ System	Test Date: 3/15/18		
Test Case ID#: Voting_redistributeTest_1 Test Description: Test if the redistribute() is working.	Name(s) of Testers: Pinki Wong		
Automated: yes X no	Indicate where are you storing the tests (what file) and the name of the method/functions being used.		
Results: Pass X Fail			
Preconditions for Test:			
Create a Ballot ArrayList, and a Voting instanceStore the expected output in an ArrayList<ballot> for</ballot>	comparing results.		

Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
			Pass		Use the ArrayList add function
	Test the	Input data is an ArrayList of			to add the input ballot to the
1	redistribute(ArrayList <ballot>)</ballot>	Ballot			end of the original ArrayList
2					
3					
4					

The input ArrayList is now added to the end of the original ArrayList

Project Name: Projec	t 1: Voting Sys	tem	Team#21		
Test Stage: Unit _X_	System		Test Date: 3/18/18		
Test Case ID#: Voting_g Test Description: Test if Expected to generate an or format are correct.	the generateReport	() is working.	Name(s) of Testers: Yiwen Wan		
Automated: yes X n	10		Indicate where are you storing name of the method/function	ng the tests (what file) and the s being used.	
·	FailX				
 Preconditions for Test: Create a Ballot Arra instance Store the expected or 	•		•	teballot ArrayList, and a Voting	
Step Test Step	Test	Expected	Actual		
# Description	Data	Result	Result	Notes	
1 Test the generateReport()	No input data.	Pass	Fail	Not implemented yet	
2					
3					
4					
1					

The output file is expected to print out the electedCandidate, nonElectedCandidate and invalidateBallot

Proj	ect Name: Projec	t 1: Voting Sys	tem	Team#21	
Test	Stage: Unit _X_	System		Test Date: 3/20/18	
Test Case ID#: Voting_generateReportTest_2 Test Description: Test if the generateReport () is working. Expected to generate an output file and check if the content and format are correct.				Name(s) of Testers: Yao Zeng	
Auto	tomated: yes X no			Indicate where are you storing the tests (what file) and the name of the method/functions being used.	
Resu	lts: Pass X	Fail			
Prece	onditions for Test: Create a Ballot Arra instance Store the expected o			dCandidates ArrayList, invalidate comparing results.	teballot ArrayList, and a Voting
Step	Test Step	Test	Expected	Actual	
#	Description	Data	Result	Result	Notes
1	Test the generateReport()	No input data.	Pass	Pass	N/A
2					
3					
4					
Post c	ondition(s) for Test:				

The output file is expected to print out the electedCandidate, nonElectedCandidate and invalidateBallot

Project Name: The project #, name of your system, and the team#

Test Stage: Indicate whether it is a unit test or a system test.

Test Date: The date the test was performed.

Test Case ID#: A unique ID is required. Decide on a naming convention and use numbering. Example: Ballot Shuffle 1

Name(s) of Testers: List the names of anyone involved in running this test case.

Test Description: Describe briefly the test objective.

Automated: Indicate if the test is completely automated or being checked manually. (If you have methods running the tests and checking results, select "yes". If you are manually checking results, indicate manual by selecting the "no.")

Results: Indicate if the test passed or failed.

Step #: You will be listing the test steps in order. This number is the step number in the process.

Test Step Description: Details of the test step.

Test Data: What the test data will be for this step. Be clear on what the input data will be. If using a specific file, be clear on the name.

Expected Result: What result are you expecting from the program component or system.

Actual Result: What result were returned based on the test.

Post condition for Test: What will be true after the test has been run? Has the state of the system changed in any way?

Notes: Comments and notes for you and your team members.