Team 14
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Use Cases

Original use cases separated into eight different use cases in UseCases_Redo_Team14 file

1. Generate the election results

Name	Generate the Election Results
ID	UC_001
Description	The user will run the Voting System program on the provided CSV ballot file. Once the program calculates the correct election results, they will be displayed to the user and a related audit file containing more detailed information will be created.
Actors	Tester, electoral officer, software engineer *Do different actors have different access or view options for the audit file?*
Organizational Benefits	Processing the information programmatically saves the user time and money. Money is saved because this program can be utilized multiple times on different input files to calculate results for different elections that have the same structure. Excess time and human power would be used if the election results were manually calculated. There is also the possibility of human error if election results are tabulated by hand. With the program, the user has the ease of simply entering a file name in order to process all ballot results.
Frequency of Use	This program will be run multiple times during the year at normal election times and special elections. Depending on the actor, the program may be run at least once to multiple times to test functionality or to check the accuracy of the output results.
Triggers	*Can we assume that the program is already running (i.e. the user has already double-clicked or called a command to open the file in a terminal)?* The user types the correct file name on the command line and presses Enter to call the program.
Preconditions	The file provided must be formatted as a CSV file and must be

	placed in the same directory as the program.
Postconditions	The ballot information will be processed. Once the program is finished processing and calculating all necessary information, the election results will be displayed on the console. More detailed election information will be output into an audit file which will be placed in the same directory as the program. The user will be able to read but not edit the audit file by opening it from the directory.
Main Course	1. The actor provides the file name as a command line argument. 2. System parses csv for ballot information and implements the proper algorithm; system displays information as soon as it is available. 3. System finishes processing election results and displaying results to the terminal. 4. More election information is saved to an audit file that will contain a unique name related to its timestamp. 5. Audit file can be opened from the same directory as the program.
Alternate Courses	AC1 The user did not provide a file name while running the program 1. The program prompts the user for the filename 2. Return to main course 2.
Exceptions	EX1 The program cannot find file 1. Notifies the user that the file is not found. EX2 The file has an unexpected MIME type 1. Notifies the user that the file is of wrong MIME type

2. Provides file for the program to run

Name	Provides file for the program to run
ID	UC_001
Description	The user will provide a file for the program in order for it to run and give an output.
Actors	Tester, electoral officer, software engineer
Organizational Benefits	This increase efficiency as it allows the actors to be able to get an output quickly by providing a file instead of manually entering the information into the program in order to save the user time.
Frequency of Use[1]	They must provide a file during every run of the program.
Triggers	The user provides the file name as a command line argument.
Preconditions	The program must be compiled. The file provided must be a csv file. The program and the file are in the same directory.
Postconditions	The program will run with the correct information from the provided file.
Main Course	6. *The user receives the file containing the vote information as a csv file.* 7. *The actor provides the file name as a command line argument* 8. The program parse through the csv file and provides an output and audit file.
Alternate Courses	AC1 The user did not provide a file name while running the program 3. The program prompts the user for the filename 4. Return to main course 3.
Exceptions	*EX1 The program cannot find file* *2. Notifies the user that the file is not found.* *EX2The file has an unexpected MIME type* *2. Notifies the user that the file is of wrong MIME type*

3.

Name	View Election Results
ID	UC_003

Description	After the program is run, the user is able to view the audit file containing the election information at the time (e.g. Type of Voting, Number of Candidates, Candidates, Number of Ballots, etc).
Actors	Election Official, Tester, Software Developer *Is the audit file made public?* *Do other parties access or view the audit file?*
Organizational Benefits	Viewing the audit file will allow replication of the election as it shows how the election progressed thus automating the process of gathering election information. This optimizes the time needed in the case a replication of the election is required.
Frequency of Use[1]	This is done after running the program for a given election. The audit file may be viewed multiple times if necessary as it is not overwritten because the filename will contain a timestamp. *Is there an extent to which the file can be accessed (ie is it deleted after a certain amount of time? Is the file allowed to be viewed multiple times?)*
Triggers	Clicking the file in the file explorer. Opening the filename in the command line. *Does the audit file need to display/open automatically upon completion of running the program? Is it triggered by anything other than just clicking the file in the file explorer? How is the user opening/viewing the file? Can a user just open it in a text editor? What file format is the file in?*
Preconditions	The audit file is produced by the program. *What application/program is the user using to view the audit file?*
Postconditions	The user has viewed the audit file. The audit file has been opened/visited.
Main Course	1. The user runs the program and the audit file is generated 2. *What if a user wants to access an audit file already generated? Is this even allowed? (see AC)* 3. *Does the audit file open automatically?* 4. *Does the program require the user to open the file via the file explorer, command line, both?* 5. *Is the audit file viewed in specific applications or does the user designate which program to view the audit file in?*
Alternate Courses	*If a previously generated audit file can be viewed, how does the user open the audit file? Is this through the command line? System? File explorer? Other application?*

	Can a party who isn't a direct user of the program still access the audit file? If so, how do they access the file? Log in to local machine? Shared folder or drive?
Exceptions	The file is already opened**.**