4.2 Processing Ballot

Name:	Processing Ballot
ID	UC_002
Description	After a file has been opened, the ballot file will be process accordingly to the election voting system that has been determined. During the process, each candidate or party will be tally up. Once all the ballots have been processed, the information will be sent to the following election voting system that's conducted to determine a winner(s) and any additional features the voting election system has.
Actors	Programmers and testers.
Organizational Benefits	Allow an efficient processing of the ballots and ready format details for the actual voting system that takes place.
Frequency of Use	As frequent as voting system election that are occurring.
Triggers	A csv file has successfully been opened by the software. A redistribution of ballots need to occur in an instant run off.
Preconditions	Ballots file is open.
Postconditions	Ballots and tally marks have been processed and can be send into a pertaining voting system to conduct.
Main Course	1. First line processed is "IR" and proceed (see EX1). 2. Parse the next 3 lines to determine the number of candidates, the candidates separated by commas, and the number of ballots in the file. 3. After the 4th line of the file, start processing each line as follows: 4. Split the ballot line by "," and save the ranking of each ballot. 5. Add the indicated first preference to each candidate. 6. Repeat step 4-5 till all ballots has been process. 7. Return the vote of each candidate to instant run off voting system to conduct the election.

Alternate Course	**AC1 Closed Party** 1. First line processed is "CPL" then proceed (see EX1). 2. Parse the next 2 lines to determine the number of parties, the parties separated by commas. 3. Parse the next x (number of parties) lines for each candidates in ranked order for the corresponding party. 4. Parse the next 2 lines for the number of seats and number of ballots. 5. Split ballots by "," and add one vote to the selected party in each ballot. 6. Return the vote of each party to closed party voting system to conduct the election. **AC2 Redistribution of Ballots for IR** 1. The candidate that is eliminated will have their votes redistributed. 2. Add the indicated second/third/fourth/… preference accordingly of each ballot to each candidate. 3. Return the new vote of each candidate excluding the eliminated candidate to the instant run off voting system.
Exceptions	**EX1 Invalid voting system** 1. First line does not match any of the courses' first line. Inform the user the opened file's first line and sends an error. Remove the file as an opened file in the system.