**JVoter**

**Use Case Model & Specification**

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**Use Case Model**



**Use Case Specification**

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| **Use Case UC1** | | **Initiate a vote** |
| Description | | Initiate a vote to all online users or a group of them |
| Pre-condition | | Voters has successfully connect to the multicast group for JVoter and want to initiate a vote |
| Flow of Events | Basic Path | 1. Voter click the initiate button and get a new windows for creating a new vote |
| 2. Voter fill in all details of the vote with a specified deadline and then choose all online users or a group of them as the participators |
| 3. Click the send button and this window will be closed automatically after successfully transmission of the vote |
| 4. Record this vote to the voter’s local file |
| Alternate Path | 2.1 Voter click cancel button to cancel this initiation and this window will be closed and back to main windows |
| Exceptional  Path | 2.1 Voter dose not choose any one as participator and still click send button |
| 2.2 Give voter the warning that this vote will not be send until there is at least one participator and then back to the initiate windows |
| 3.1 Voter disconnect from the multiple group during the transmission of the new vote |
| 3.2 Transmission will be cancelled automatically |
| Post-condition | | A new vote was sent to selected online users and recorded in the voter’s locality file |
| **Use Case UC2** | | **Check unanswered votes** |
| Description | | Voter check the unanswered votes sent by other voters |
| Pre-condition | | Voter has received at least one vote and has not replied it yet |
| Flow of Events | Basic Path | 1. Voter click the unanswered button and get a list of votes which have not been replied and still not exceed the deadline and also not be cancelled by its initiator |
| 2. Voter can choose one of them to reply, then go to Use Case UC3 |
| 3. Alternatively voter can choose to reply later and back to main windows |
| Alternate Path | Null |
| Exceptional  Path | Null. |
| Post-condition | | If voter choose to reply one vote, and then get a new windows with all the information of this vote with a default selected option |
| **Use Case UC3** | | **Reply a vote** |
| Description | | Voter reply the vote received from other voters with a selected option among all the items displayed in this vote |
| Precondition | | Voter choose the Bath path 2 in Use Case UC2 |
| Flow of Events | Basic Path | 1. Voter select the option which he/she prefer most |
| 2. Voter click reply button |
| 3. After the successful transmission of this reply, this windows will be closed automatically and back to main windows |
| 4. Record this reply to the voter’s local file |
| Alternate Path | 2.1 Voter click cancel button to cancel this reply and back to main windows without send any reply message to the initiator of this vote |
| Exceptional  Path | 2.1 Before voter click the reply button, one cancel message has been received to cancel this vote |
| 2.2 Prompt voter that this vote has been cancelled by its initiator and do not need to reply and then close the reply windows and back to main windows |
| 3.1 Voter disconnect from the multiple group during the transmission of the reply |
| 3.2 Transmission will be cancelled automatically |
| Post-condition | | A vote will be successfully replied to its initiator and removed from the unanswered list |
| **Use Case UC4** | | **Send time-out reply** |
| Description | | When a unanswered vote exceed its deadline, Jvoter will reply it automatically to its initiator with its default selected option |
| Pre-condition | | The timer in JVoter scan all the unanswered vote periodically and find at least one unanswered vote has exceeded its deadline |
| Flow of Events | Basic Path | 1. JVoter get all the information of the vote from voter’s locality file |
| 2. JVoter send the reply to its initiator with the default selected option |
| Alternate Path | Null |
| Exceptional  Path | Null. |
| Post-condition | | A vote which exceeded its deadline was removed from the unanswered list and sent to its initiator with its default selected option |
| **Use Case UC5** | | **View vote records** |
| Description | | Voter view all the votes either initiated by him/her or he/she has participated in |
| Pre-condition | | Null |
| Flow of Events | Basic Path | 1.Voter click the view button and get a new windows with the list of all votes he/she has initiated or participated in |
| 2.Voter click one of the votes and get all the information of this vote |
| Alternate Path | Null |
| Exceptional  Path | Null |
| Post-condition | | Null |
| **Use Case UC6** | | **Cancel a vote** |
| Description | | Voter passively cancels the votes which are initiated by him/her; because of the early leaving before receive replies from all participators. |
| Pre-condition | | There is at least one vote initiated by this voter and has not been finished (means still not receive all the replies from participators). And the voter exits this program before get all the replies. |
| Flow of Events | Basic Path | 1. Prompt the voter that all the votes which have not been finished will be cancelled |
| 2.JVoter send the cancel message to all the participators |
| 3. Store the current reply status into the voter’s locality file instead of waiting for the all replies before storing. |
| 4. Close the program |
| Alternate Path | 1.1 Voter choose to back to main windows to wait for the all replies |
| Exceptional  Path | Null |
| Post-condition | | The votes which are initiated by him/her and have not been finished are cancelled. And cancel message have been sent to all participators to inform them to ignore this vote. |