Mobile Phone Voting System

Software Plan

Group No.17

Group Members:
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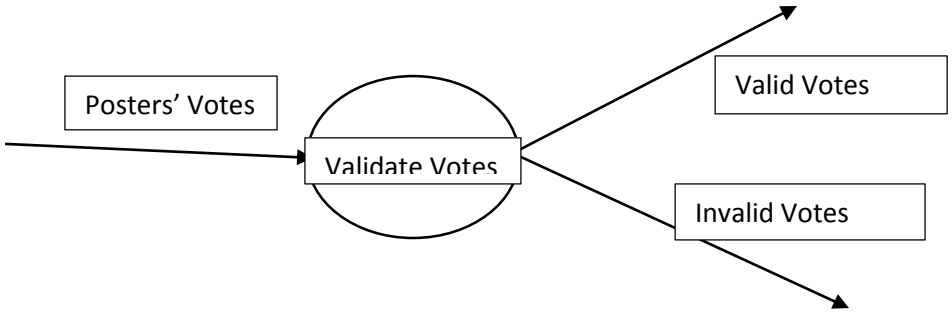
1.0 Scope

This project is basically a voting management server which will handle votes from voters on CS Day.

1.1 Functions

There is one main function which is collecting votes and process how many votes per poster gets, then selects top voting posters on CS Day.



Specific features are:

1. Voter can send short text message from his/her smart phone to a specific smart phone running our Android Voting System.
2. Upon receipt of the short text message containing the ID number of the best poster (only one should be selected), the said ID number will be entered in a Tally Table with attributes CandidateID, count.
3. The phone number of the voter will be remembered in a Voter Table with attributes VoterPhoneNo, CandidateID, so that no voter can use the same phone to vote twice. If the voter votes for the first time, he/she will receive a confirmation text. If the voter votes more than once, he/she will get an error message to show duplicates found in the system.
4. The administrator at the smart phone running Voting System can issue a special command, which will terminate the voting. The system will display the Tally Table in decreasing number of votes so that the first winner will be displayed first and so on. At the end the Voter Table will be eliminated.

1.2 Performance

The system should handle at least one hundred concurrent users, one thousand user profiles and be able to process a voting entry in less than one second.

1.3 Limitations

One constraint is that the system cannot behave like a client-side voting machine, which means users will not use this application to login and vote for their favorite poster. Also, this application can only process votes for posters exhibited on CS Day.

2.0 Tasks

- User interface
- Database management system
- Profile management
- Text message process and management

3.0 Resources

3.1 Hardware

PC/ Mac (for development)
Android mobile phone (for deployment)

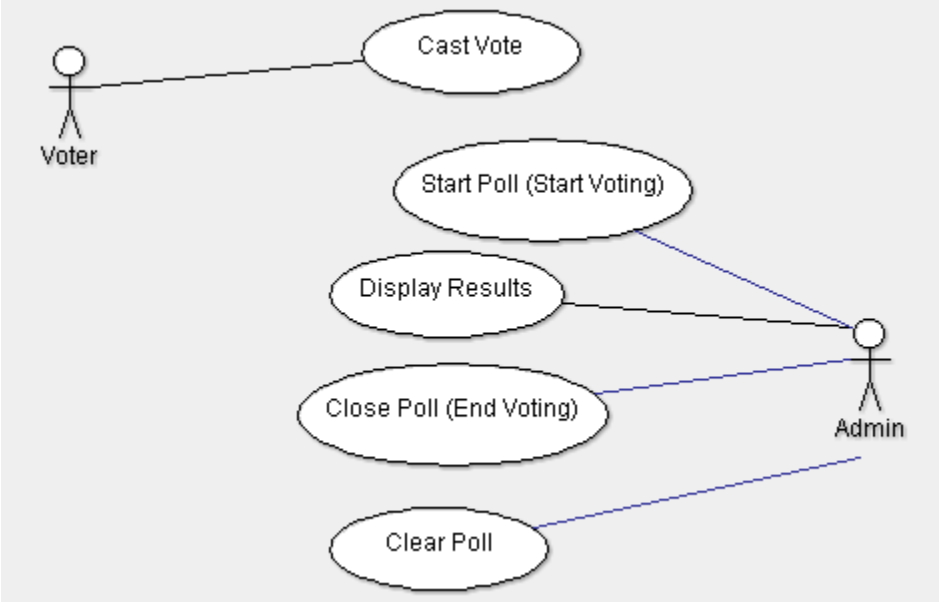
3.2 Software

- Android Studio
- Java 1.8
- SQLite

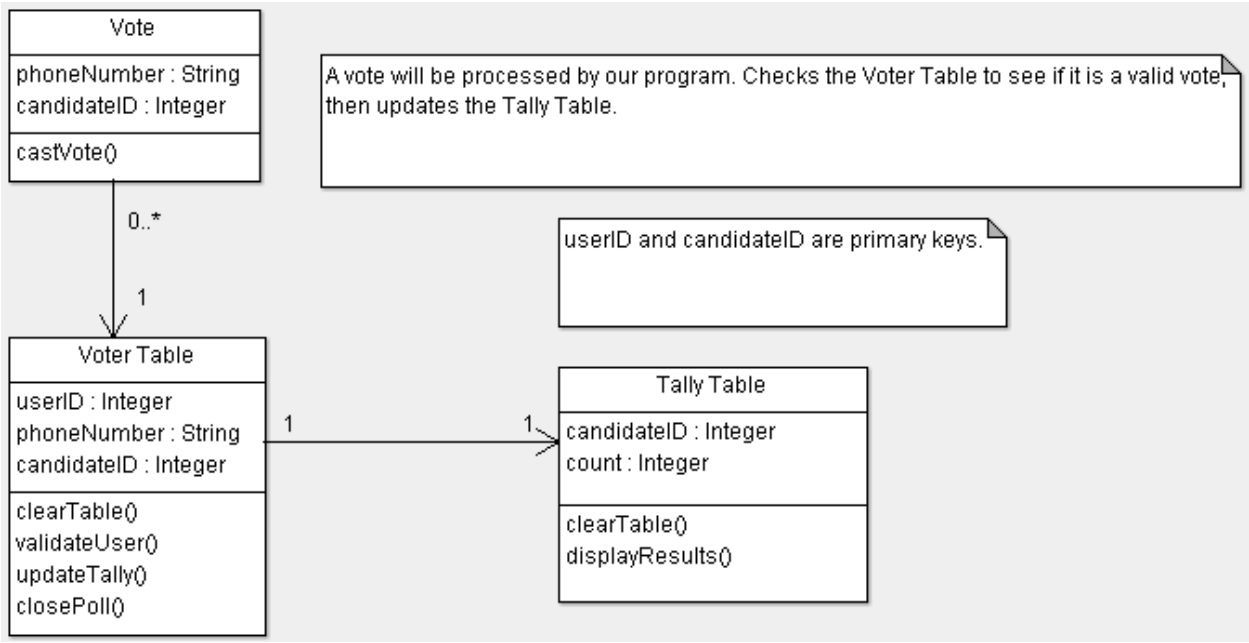
3.3 People

Roles:
Software Developer: John Kuzniar (Front end/Back end)
Software Developer: Xiaokai Wang (Front end/ Back end)

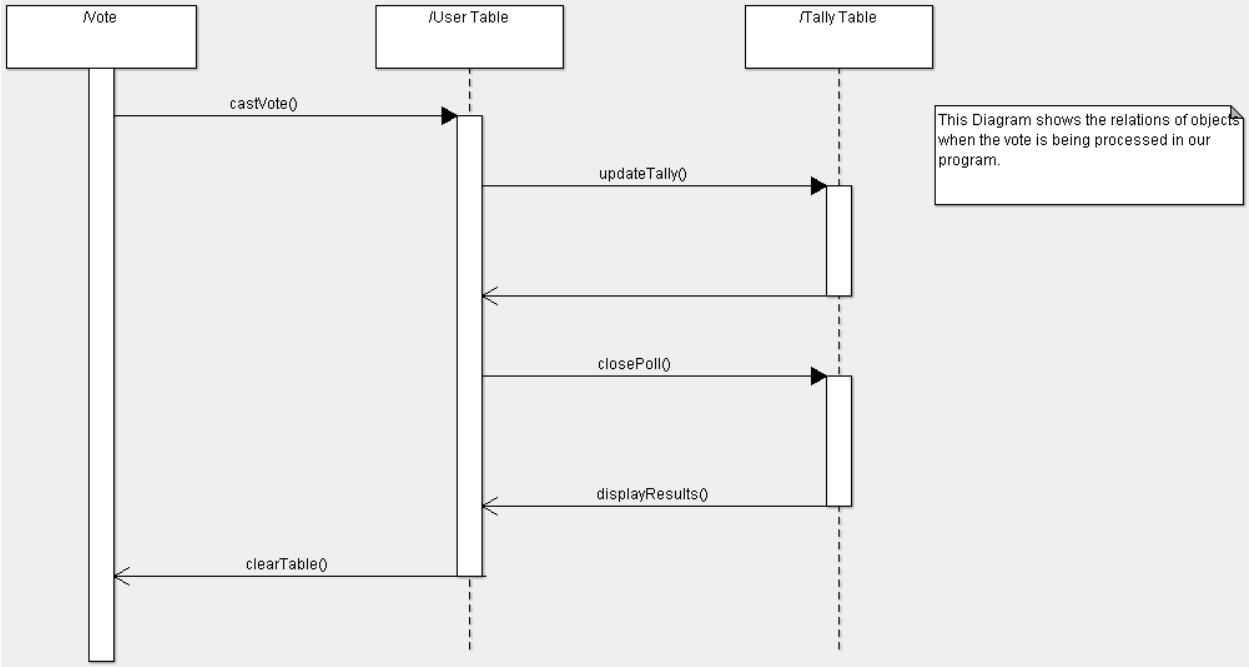
Use Case Diagram



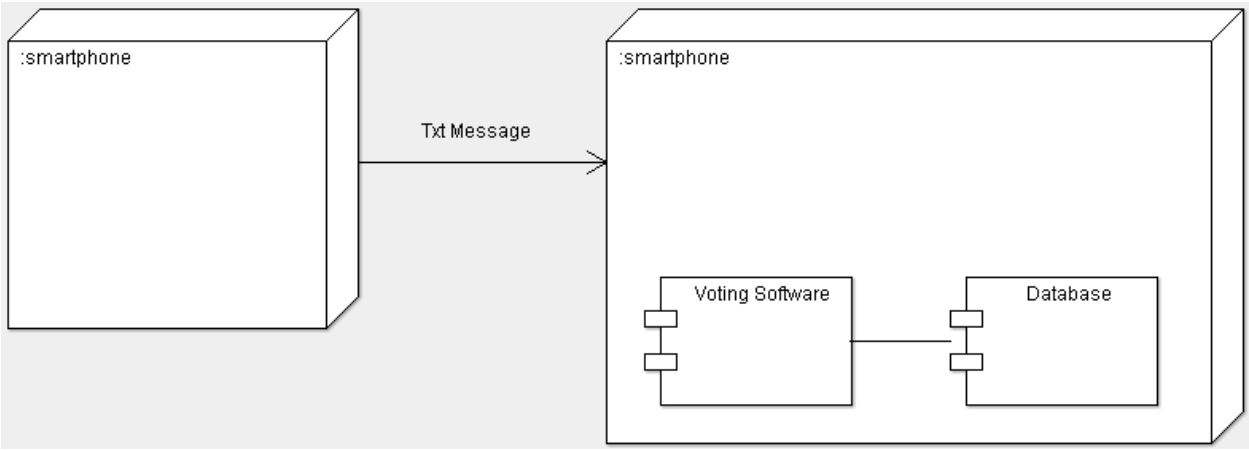
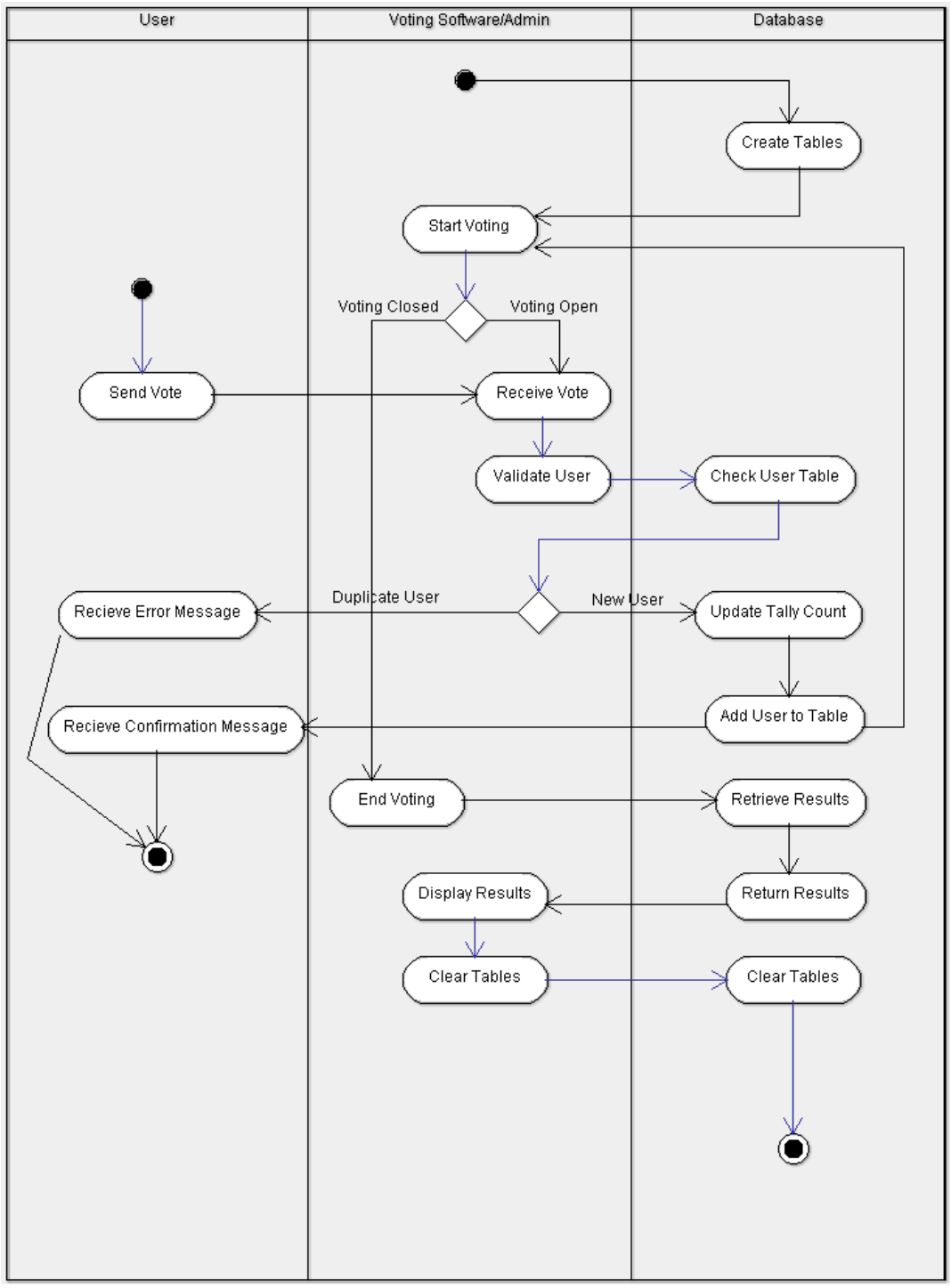
Class Diagram



Sequence Diagram



Deployment Diagram



Activity Diagram (A Single Poll Execution)