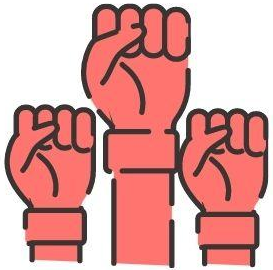
Mobile Computing And Android App Development

MINI PROJECT

BY:
ROHIT K
SAHANA H P

INVOTE

Right To Vote..!



Cast your VOTE conveniently ONLINE
without the need of BALLOTS

CONTENTS

INTRODUCTION

The Online voting system also known as e-voting is a term encompassing several different types of voting embracing both electronic means of counting votes. It can also involve transmission of ballots and votes via telephones, private computer networks, or the internet. Online voting is an electronic way of choosing leaders via a driven android application. The advantage of online voting over the common “queue method” is that the voters have the choice of voting at their own free time and there is reduced congestion. It also minimizes on errors of vote counting. The registration should be done prior to the voting date to enable data update in the database. However, not just anybody can vote. For one to participate in the elections, he/she must have the requirements. For instance, he/she must be a registered citizen i.e. must be 18 and above years old. As already stated, the project ‘Online Voting' provides means for fast and convenient voting and access to this system is limited only to registered voters.

MOTIVATION

5 Reasons to choose online voting

- Vote at anytime from anywhere - Time saving
- Boosts Participation - Maximises the participation
- Less Physical infrastructure - No machines and paperwork required
- Fast and easy votes tally - Easy vote Management
- Safe and contactless - Good to be contactless

PROBLEM STATEMENT

Many problems are faced by the people in voting manually:

- Much time is required.
- As it has been observed that in some cases booth capturing has been reported.
- Reduces the chances of conflicts.
- Reduces the time for ballot counting and many others.

OBJECTIVES

- Online voting system is an Android application used to securely conduct votes and elections.
- Our System makes the use of Firebase as backend, for login, registration and for storage purposes which make our system highly secured and reliable.
- It also uses Firebase ML kit for face detection which allows us to vote, one person at a time.
- This application also verifies biometric with the help of a fingerprint sensor.

DESIGN

This Application consists of different layouts where it satisfies all the test conditions with the source of android libraries present in the android studio.

- Welcome Screen
- Home Screen
- Registration screen
- Login Screen
- Fingerprint screen
- ID Verification screen
- Face Detection Screen
- Voting Screen
- Closing screen

DEPENDENCIES

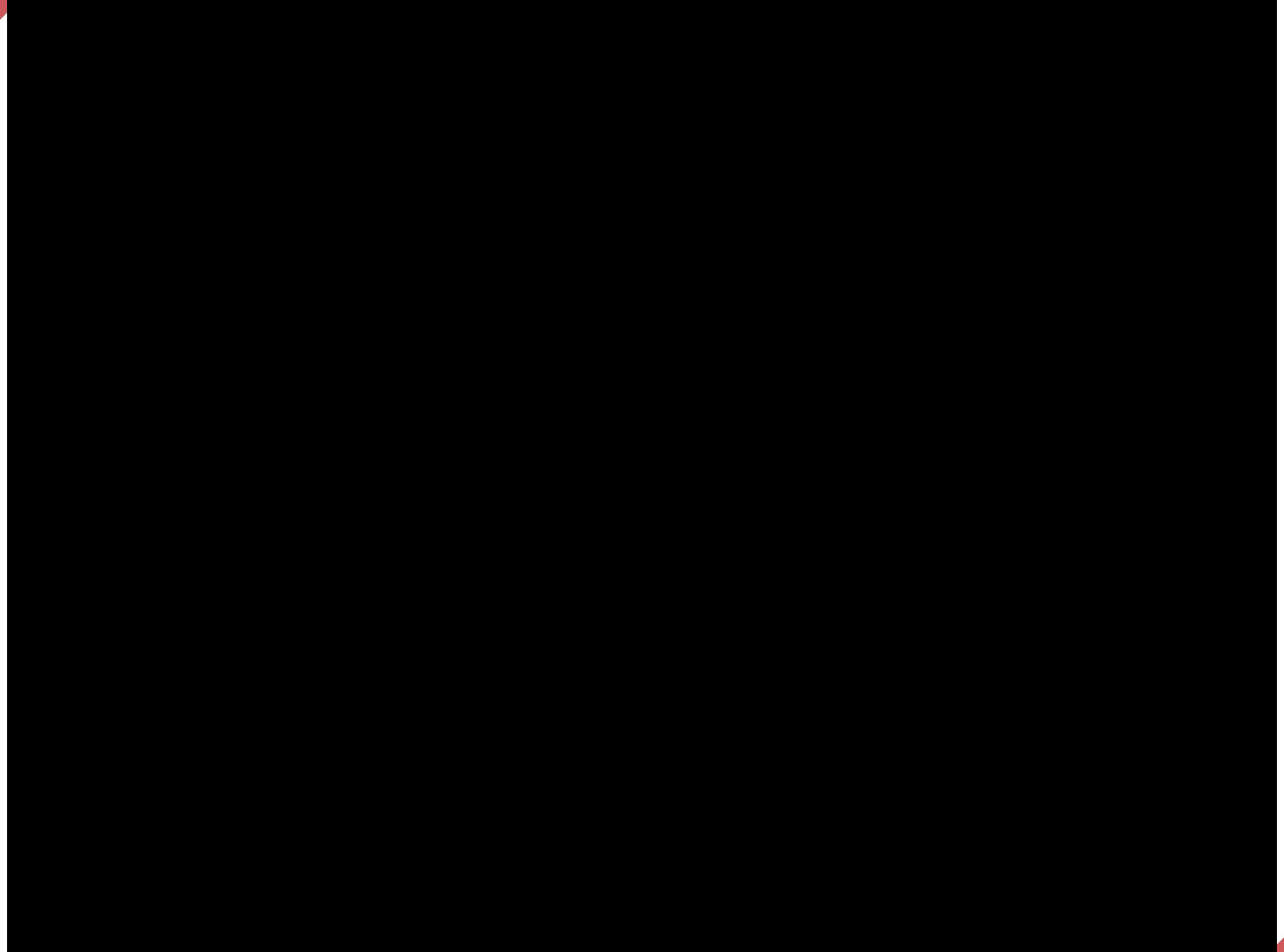
- Various Layouts such as
  - Constraint Layout
  - RecyclerView
  - CardView
- Firebase services such as
  - Authentication for Login/Signup
  - Realtime Database to store data
- Glide for image processing such as Face recognition

IMPLEMENTATION

The process of the implementation:

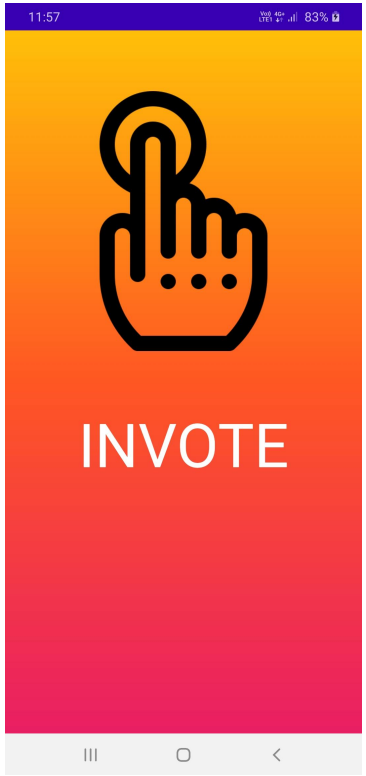
- New user registration/Old user login
- Fingerprint for voting
- Voter ID for verification process
- Face recognition for uniqueness
- Party selection for casting the vote.
- Submitting it to the database.

DEMONSTRATION

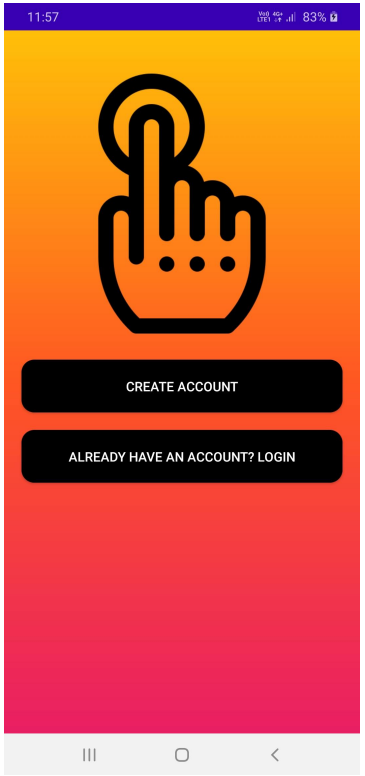


RESULTS

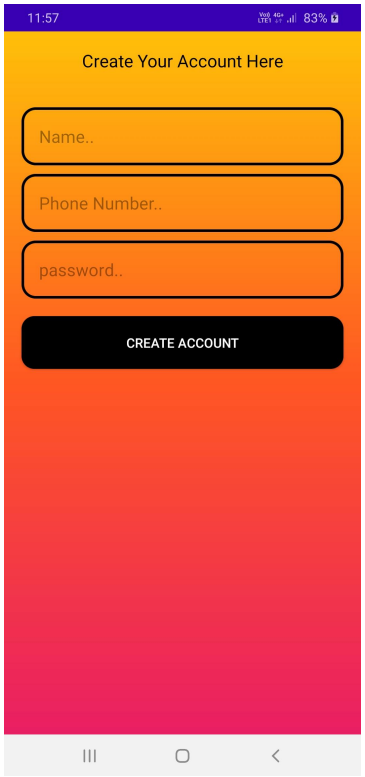
Welcome



Home

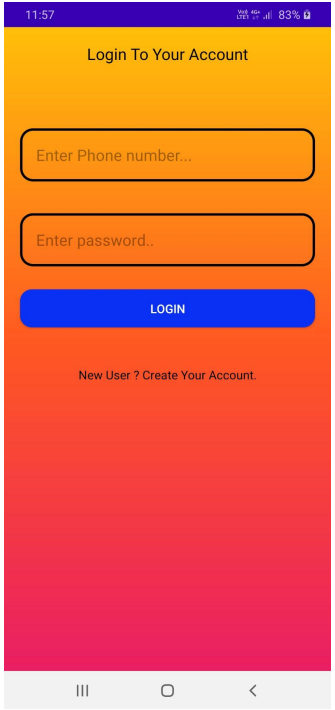


Registration

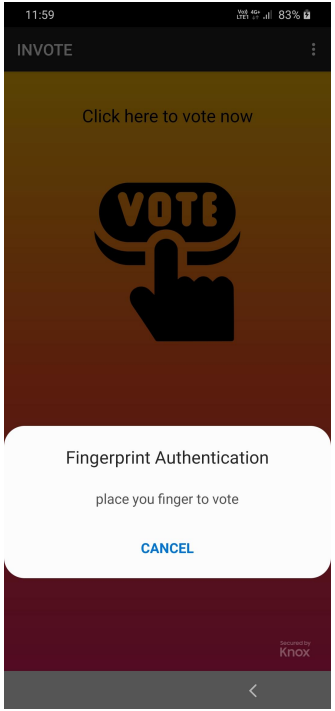


RESULTS

Login



Fingerprint Sensor

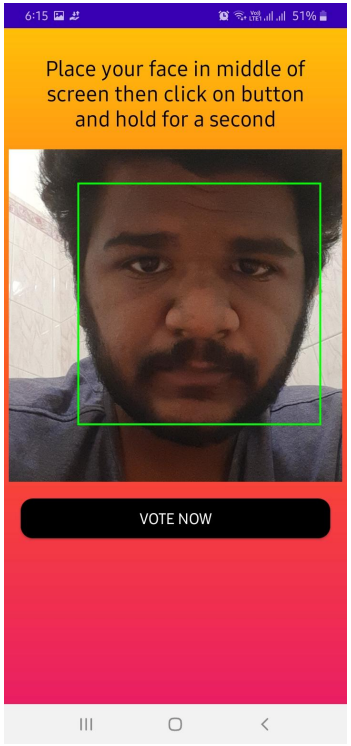


RESULTS

ID Verification

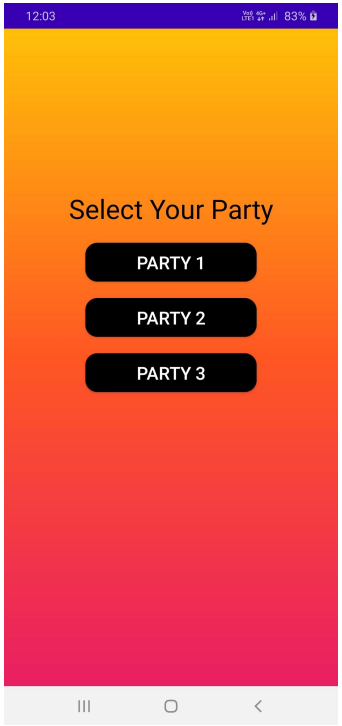
No Face Detected

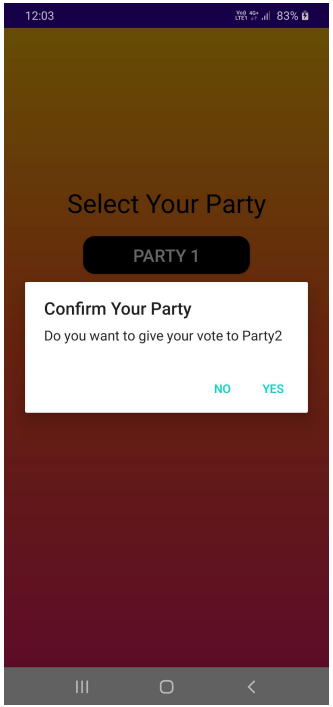
Face Detection



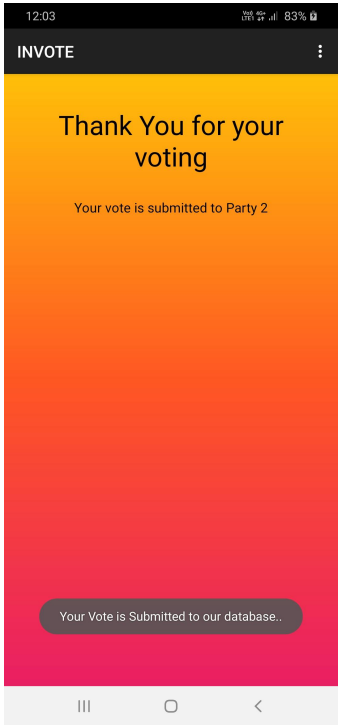
RESULTS

Select Party





Final Page



CONCLUSION / FUTURE ENHANCEMENTS

- This Online Voting system will manage the Voter's information by which voter can login and use his voting rights. The system will incorporate all features of voting system. There is a Database which is maintained on platform that is Firebase in which all the names of voter with complete information is stored.

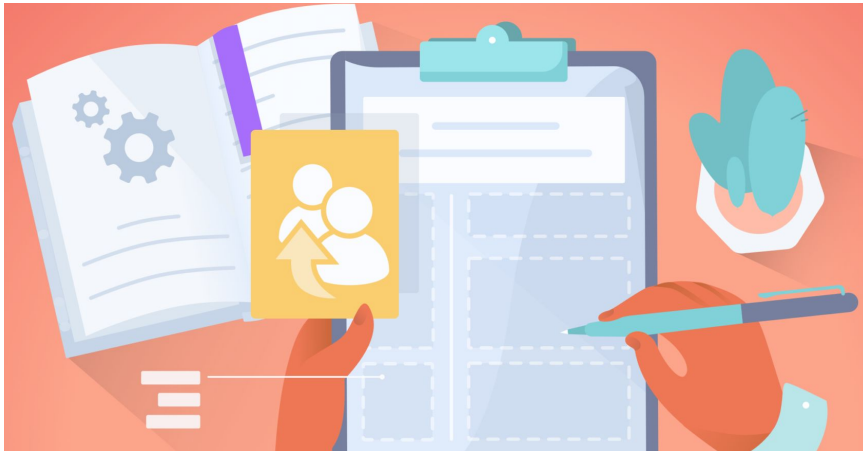
- In this, user who is above 18 year's register his/her information on the database and when he/she want to vote he/she has to login by his id and password and can vote to any party only single time. Voting details store in database. Increase in participation, Decrease in cost and time of voting process.

- In future we will enhance our system by integrate AADHAAR Card detail API so that, we can match actual Biometrics of user with input biometrics and also, we will add face recognition feature with face detection that will make our system more reliable and also one more feature that shows the results of the particular election the voter participated in.

REFERENCES

[1] - Android Based Application for E-Voting by snehal deshmukh
https://www.ijser.org/researchpaper/Android-Based-Application-for-E-Voting.pdf

[2] - Fingerprint sensor on android studio emulator
https://codinginflow.com/tutorials/android/use-fingerprint-sensor-on-android-studio-emulator



THANK YOU