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Vote Now Application

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Abstract: The "Vote Now" application is an online e-voting system that aims to provide a more efficient and secure way to vote. The system includes multiple layers of verification, including face recognition and finger verification, to ensure the reliability of the device. Additionally, the application includes a location-free voting system that allows voters who are unable to come to the voting location to cast their vote from their hometown. This system eliminates the time-consuming and paper-based process of the traditional manual voting system and provides a more secure and authenticated voting experience. The proposed system is an Android-based application and implements the Haar Cascade algorithm for individual authentication. The "Vote Now" application offers a modern and efficient voting experience while ensuring the security and reliability of the system.

Keywords: Face Recognition, Haar Cascade Algorithm, Finger Verification, E-voting, Polling application.

I. INTRODUCTION

The primary objective of this system is to develop an online voting system that will assist in eradicating fraud perpetrated by the manual voting system and earlier versions of online voting that utilized a camera for Face Recognition and finger verification.

We are also implementing a location-free voting system for voters who are unable to vote in person at their home town.

To guarantee the device's reliability, we propose a system with multiple layers of verification, including face and finger verification with validation data. The system can only be accessed by each voter who has been identified and verified by the provided database of enroll voters. The voter will be permitted to proceed with selecting their preferred candidate from the panel once the corresponding face matches the information provided.

II. AIM/MOTIVATION

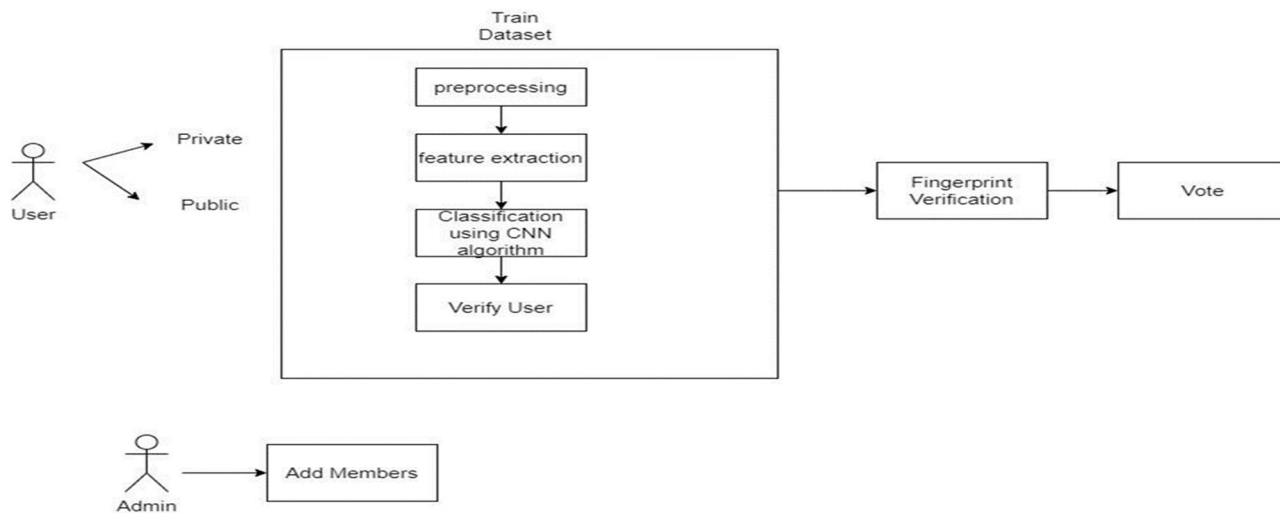
Electronic democratic innovation means to speed the counting of voting forms, decrease the expense of paying staff to count casts a ballot physically and can give further developed openness to impaired citizens. Additionally in the long haul, costs are supposed to diminish. It is possible to report and publish results faster.

III.BACKGROUND OR NEED OF THE PROJECT

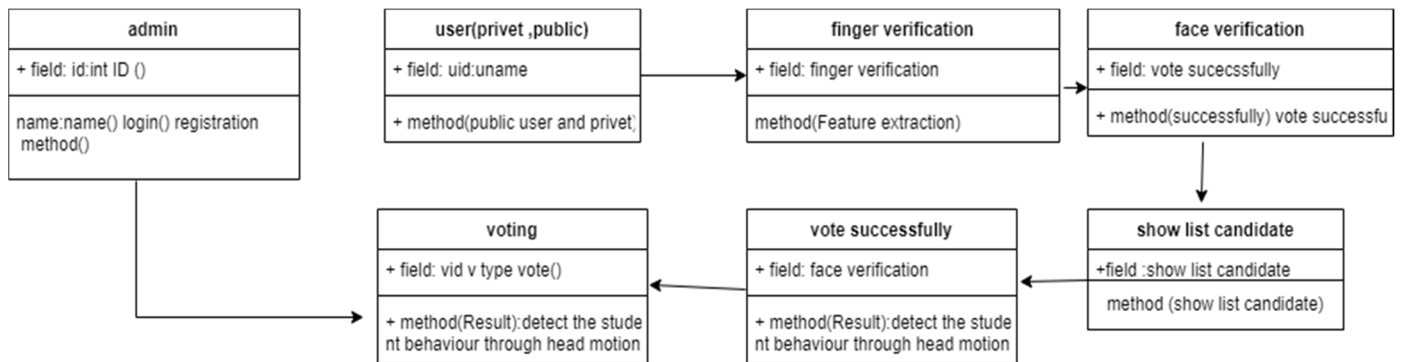
Online voting system is a voting system in which the election data is recorded, stored and processed primarily as digital information and it needs to address, obtain, mark, deliver, and count ballots via computer.

IV. FIGURES AND TABLES

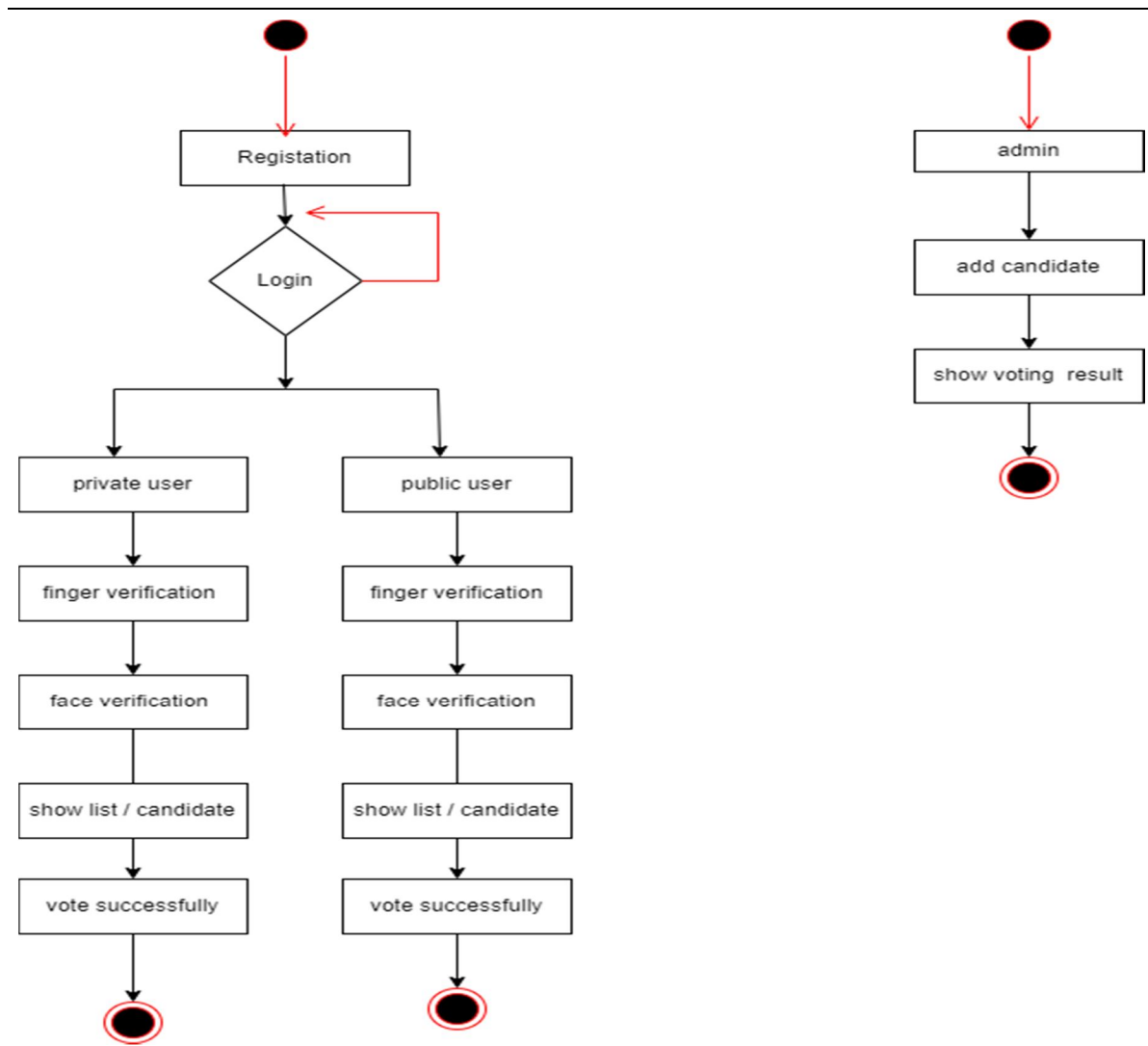
A. SYSTEM ARCHITECTURE



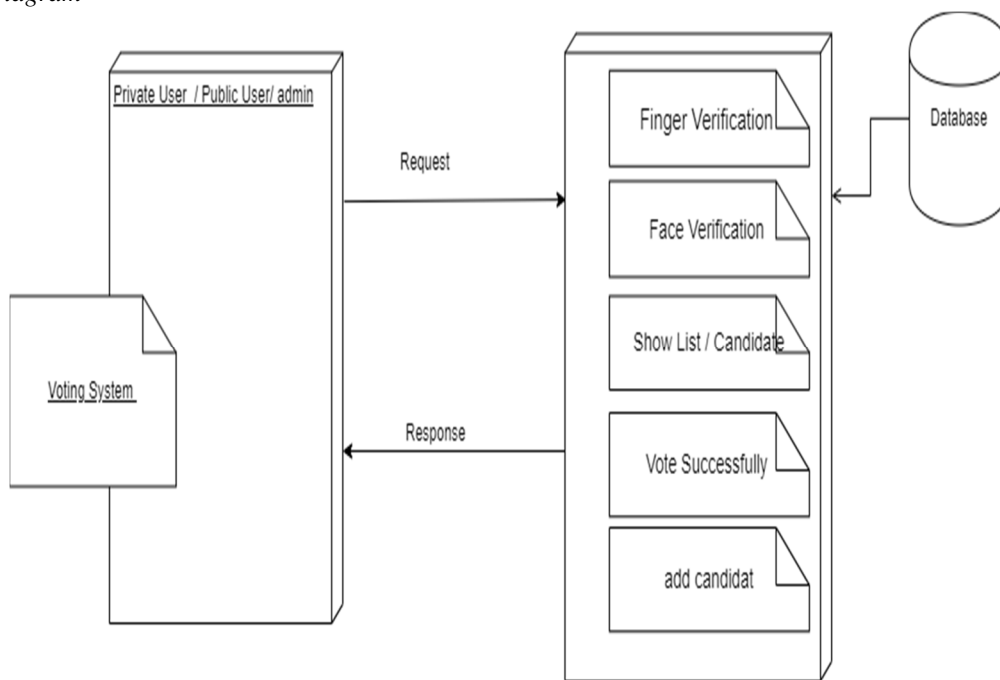
B. Class Diagram



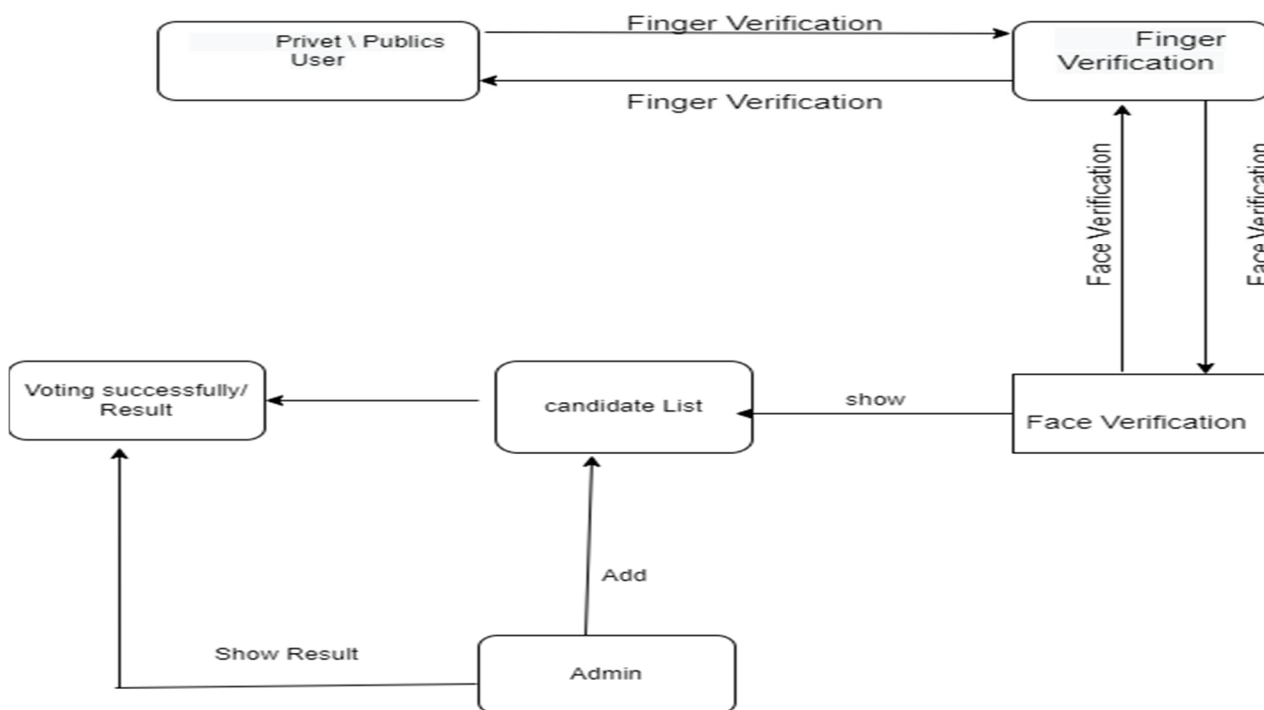
C. Activity Diagram



D. Deployment Diagram



E. Collaboration Diagram



V. ALGORITHM

Haar Cascade is a computer vision algorithm used for object detection. It uses a set of features called Haar features, which are simple rectangular filters that calculate the difference between the sum of pixel values in adjacent rectangular regions of an image. These Haar features are used to create a classifier, which can detect whether an object is present in an image. The Haar Cascade algorithm has many practical applications, including face detection, object tracking, and gesture recognition.

VI. METHODOLOGIES

The methodology involves collecting positive and negative images, training the model using machine learning algorithms such as AdaBoost, testing the model's accuracy on validation images, and using the trained model for object detection in new images. The algorithm works by sliding a classifier over different regions of an image and comparing the features of each region to the trained model. If the features match the model's characteristics, the region is identified as containing the object of interest. Haar Cascade is widely used in many applications, including face detection, object tracking, and gesture recognition.

VII. CONCLUSIONS

Our proposed solution is android based with which allows the voter to register and he/she can vote from anywhere irrespective of the location. This system provides security and also avoid casting of the multiple vote by same person. This system is more reliable in which we can vote from multiple locations. It also minimizes work, human requirements and time resources.

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