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Online Voting System

Second Year Project Synopsis
Submitted by

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Project Overview

Brief Overview of the Topic:

- The Online Voting System allows users to securely cast their votes using an online platform.
- It ensures accessibility, transparency, and ease of voting from anywhere.
- Eliminates the need for physical voting booths and reduces administrative costs.

About the Problem

- **Problems Identified**
- **Inaccessibility:** Many voters, particularly those with disabilities or those living in remote areas, find it difficult to reach polling stations.
- **Fraud & Security Concerns:** Traditional voting is susceptible to vote tampering, duplicate voting, and other fraudulent activities.
- **High Administrative Costs:** Paper ballots, manual vote counting, and election logistics require substantial funding.
- **Low Voter Turnout:** Long queues, inconvenient voting times, and logistical issues discourage people from voting.
- **Slow Vote Counting Process:** Manual tallying of votes leads to delays in announcing election results.

Problem Statement

Clearly Define the Problem

Traditional voting methods are prone to logistical issues, security risks, and inefficiencies that impact voter participation and the integrity of election results.

Why is it Important?

Enhances accessibility by allowing users to vote from their devices.
Reduces fraud risks with secure authentication and encryption methods.
Cuts down election costs by eliminating paper ballots and manual vote counting.

Expected Impact

Higher voter turnout due to ease of access.
Secure and tamper-proof voting process.
Faster and more accurate election results.

Objectives

1. Develop a secure and user-friendly online voting system accessible to all eligible voters.

2. Ensure vote encryption and data integrity using blockchain or cryptographic techniques.

1. Provide real-time vote counting and immediate result generation.

2. Minimize the risk of election fraud and unauthorized access.

Methodology, Tools, and Techniques

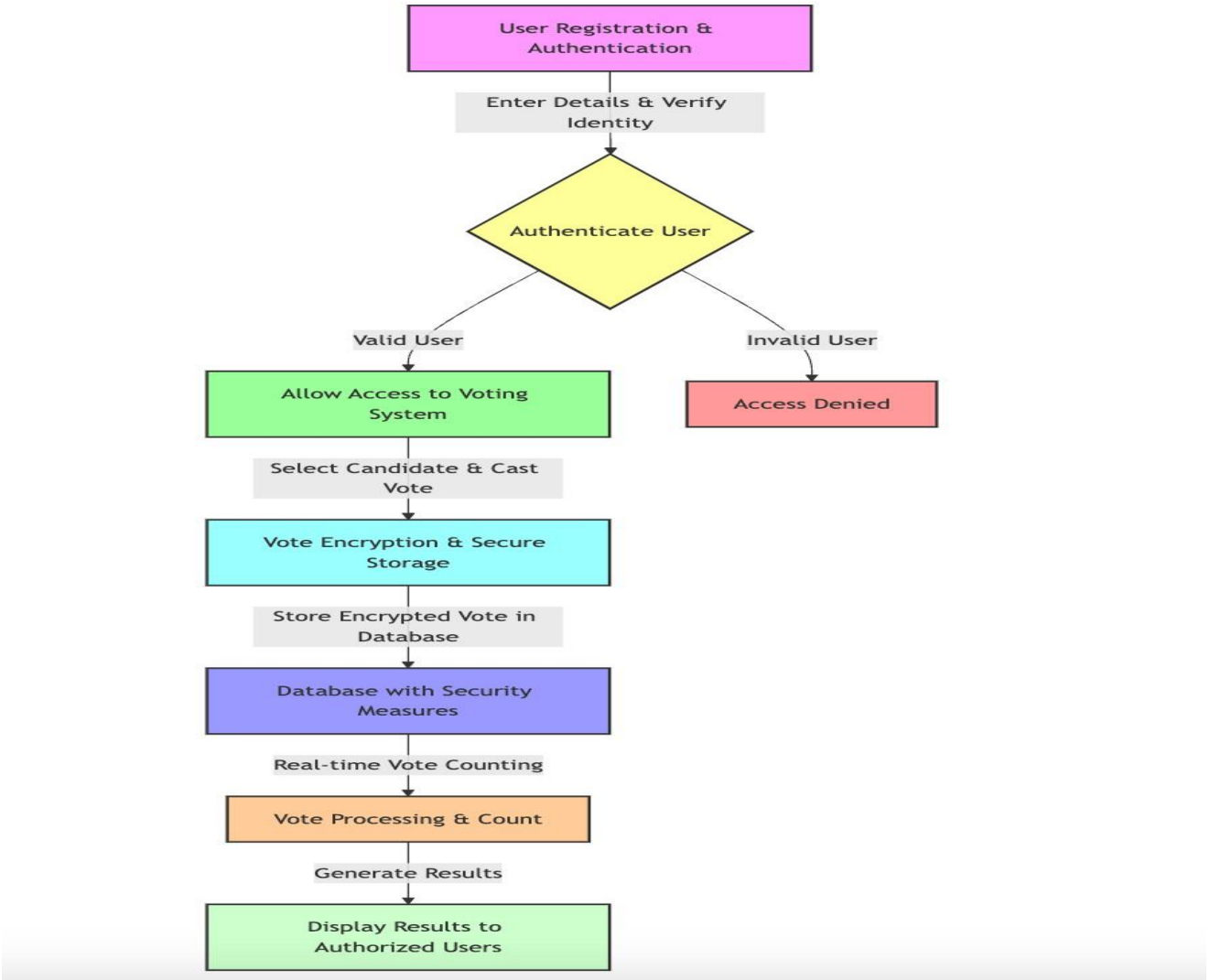
Approach taken to solve the problem

- User Registration & Authentication:
- Voting Process:
  One-time vote submission to prevent duplicate voting.
- Data Storage & Security:
  Encrypted database to prevent vote tampering.
- Vote Counting & Results:
  Automated vote tallying for quick and accurate results

Tools & Technologies Used:

- Frontend: Tkinter (for building the GUI)
- Backend: Python logic (for Face capture, authentication)
- Database: SQLite
- Language: Python

Methodology Flowchart



Project Timeline

Expected Results & Impact

Expected Results:

- Fully functional online voting system with high security and reliability.
- Real-time vote counting and instant result generation.
- A prototype system that can be tested for scalability and usability

Impact:

- For Governments & Organizations:

1. Reduces the cost and time associated with elections.

- For Voters:

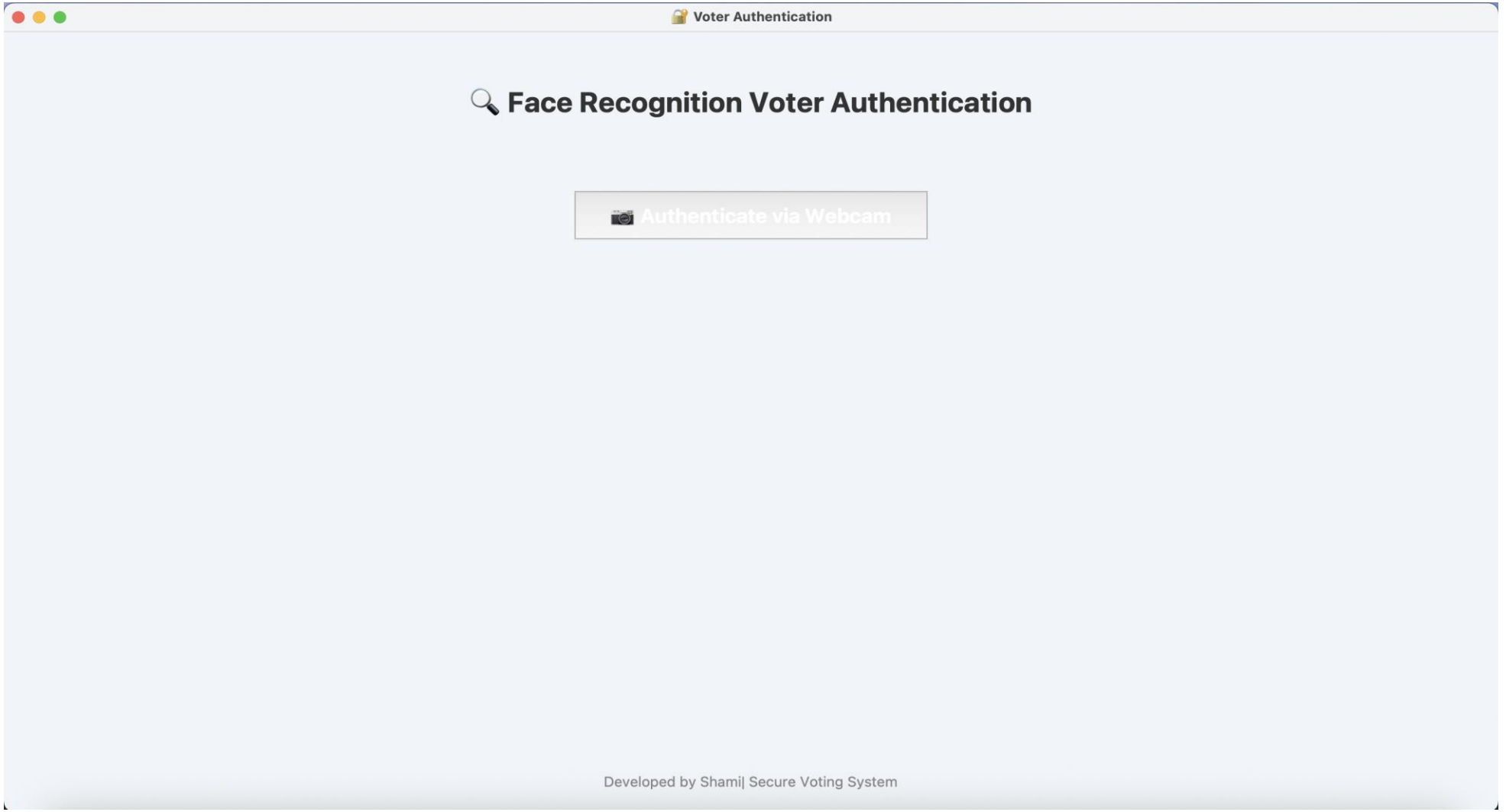
2. Provides an easy, accessible, and secure way to cast votes from any location.
3. Encourages higher voter participation.

- Future Scope:

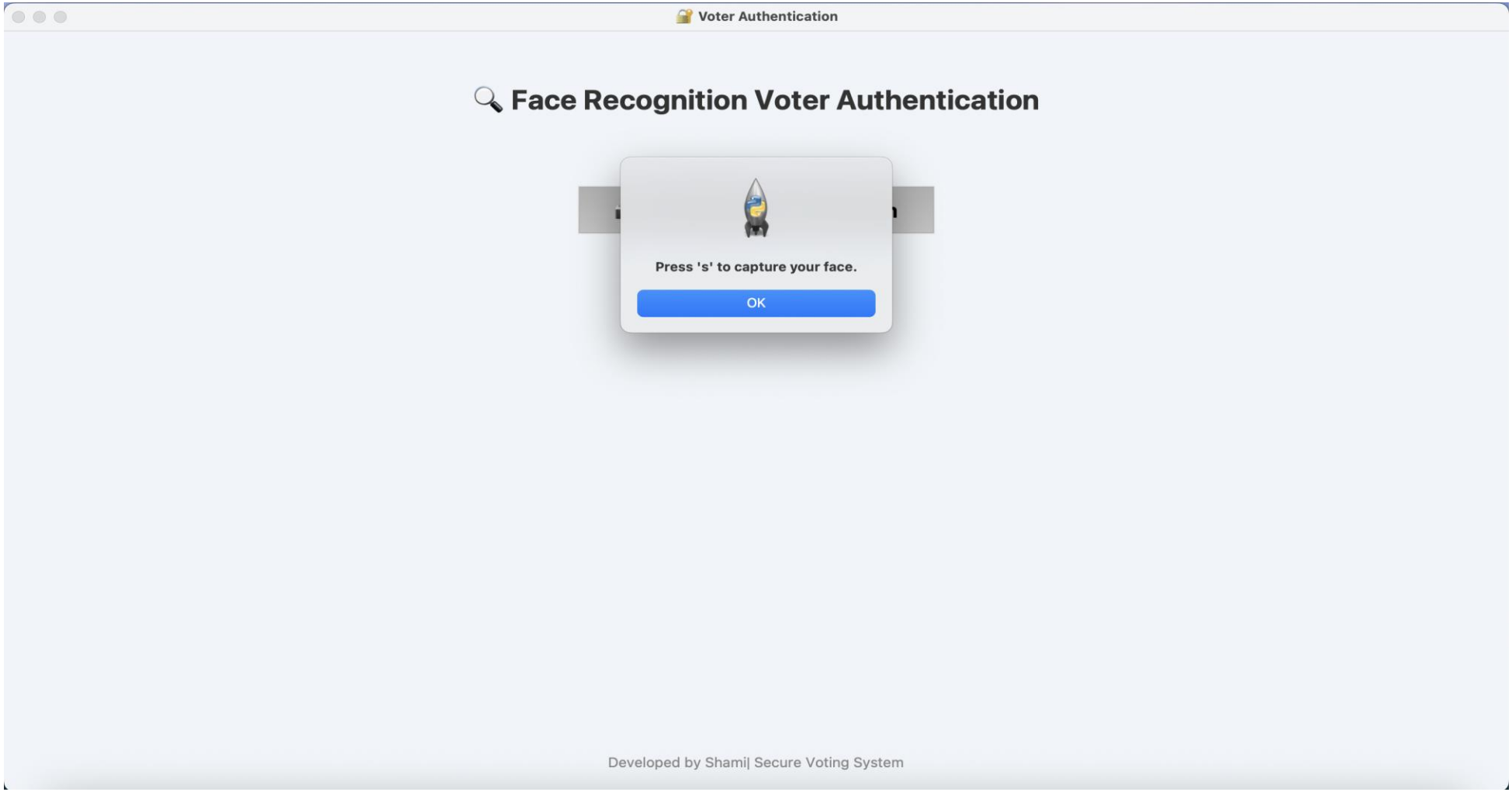
4. Implementation of AI-powered fraud detection.
5. Expansion for global elections and referendums.

Project Result for Voter Registration

For Authentication



Press ‘S’ for voter Face verification



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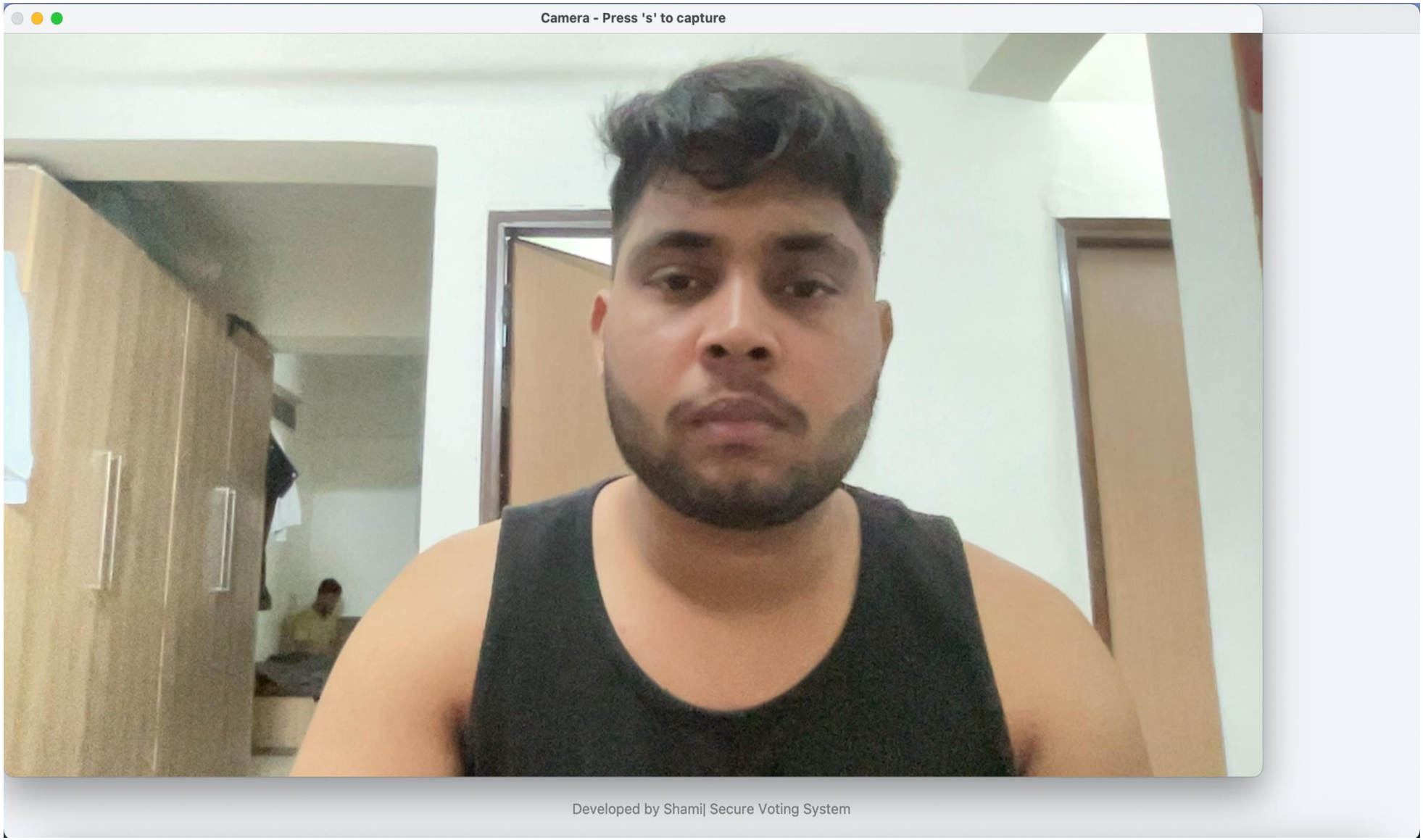
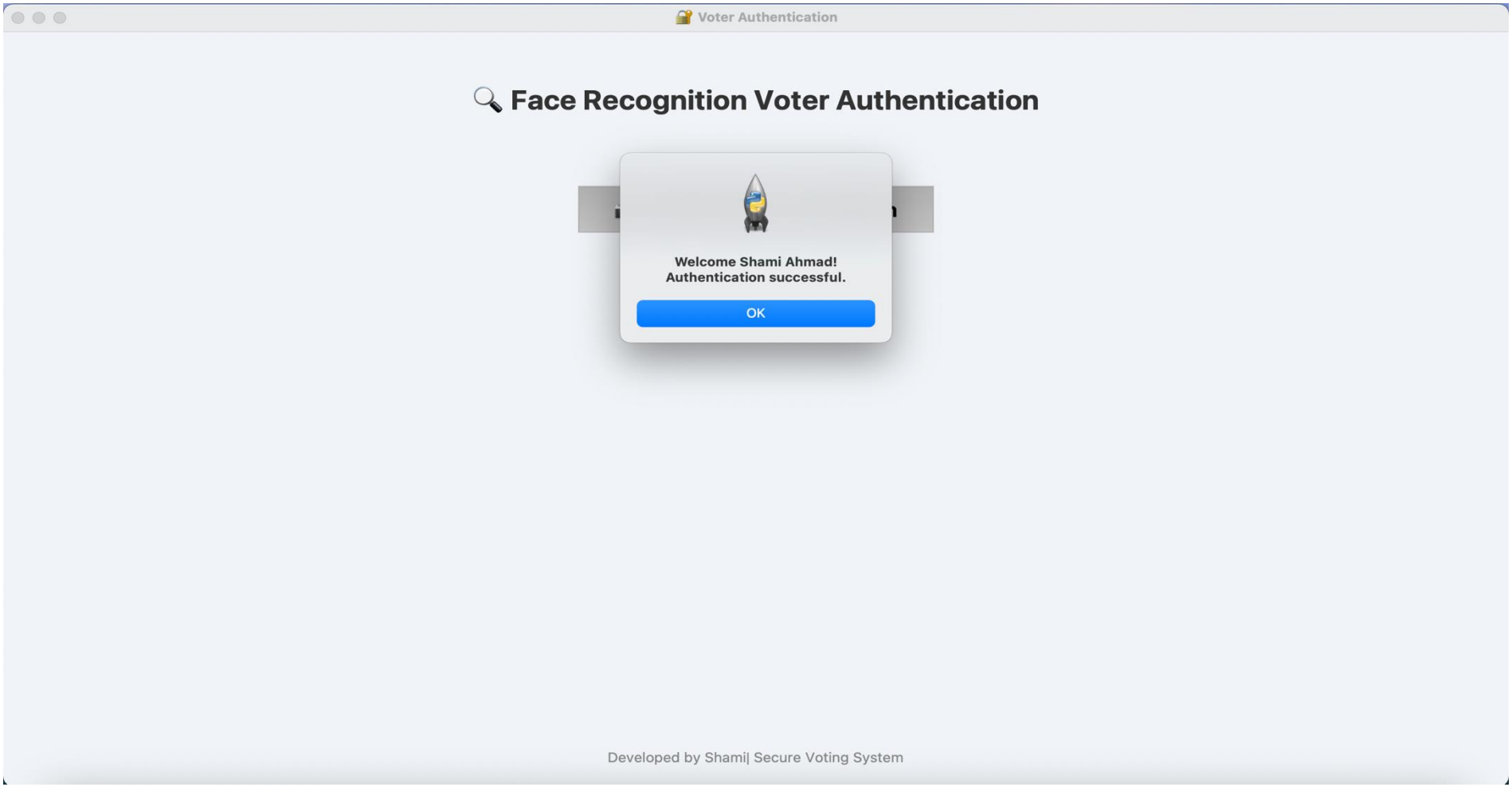
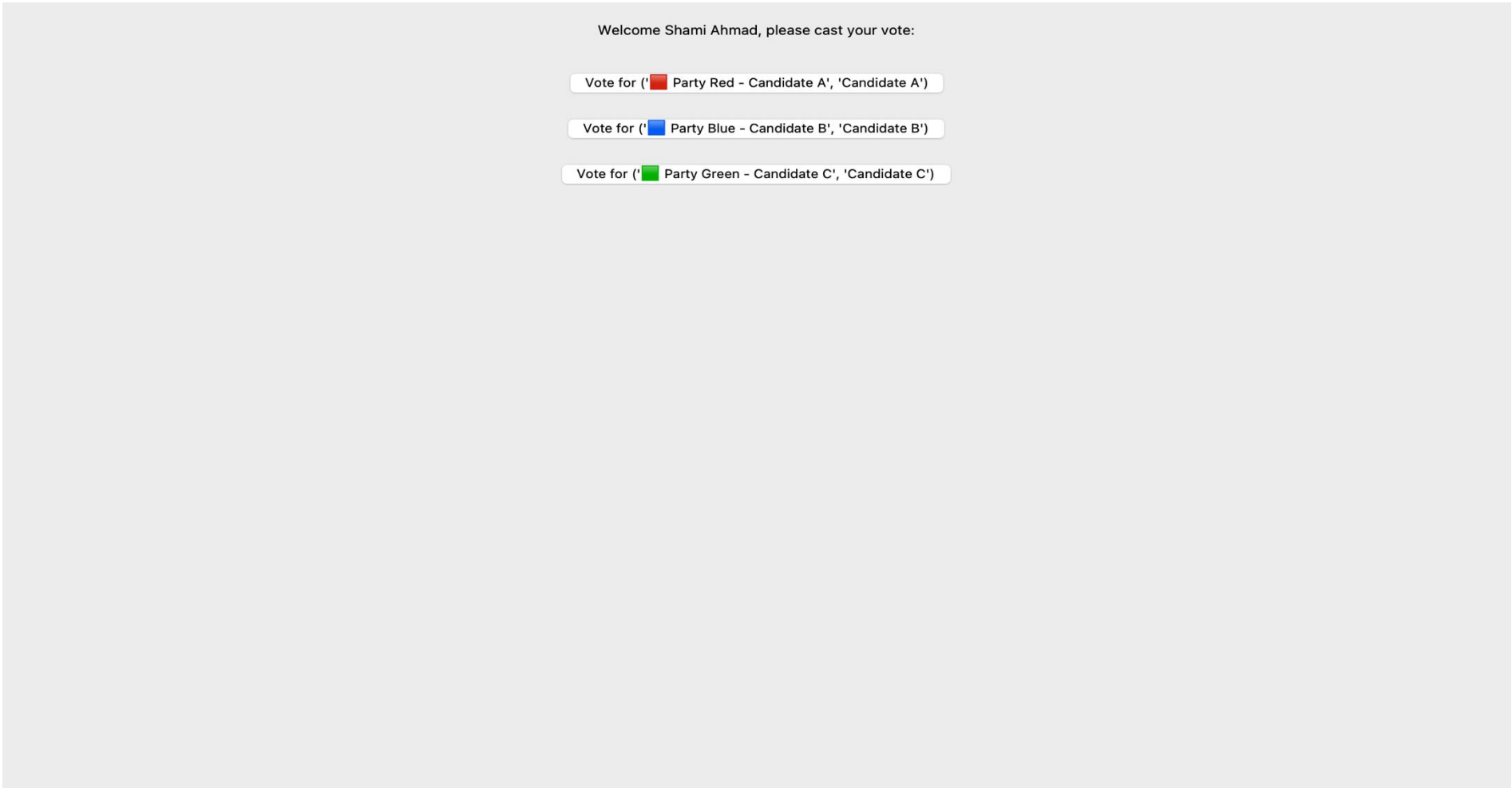


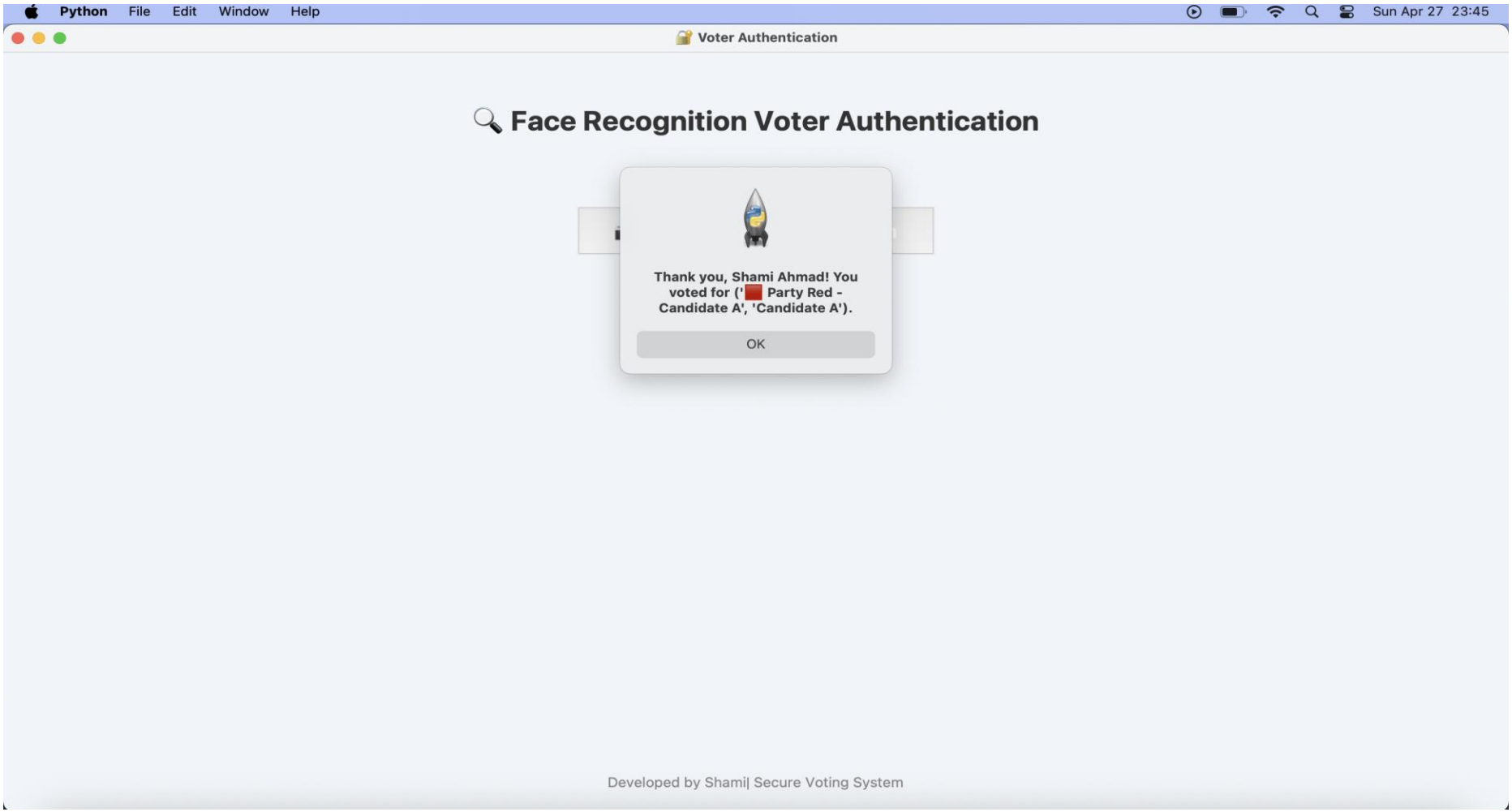
Authentication



After Authentication then Cast Vote



Vote submition



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THANK YOU