E-Voting System Report

A Secure and Transparent Digital Voting Platform

Author: [Your Name]

Date: [Submission Date]

Organization: [Your Organization/Department]

Executive Summary

This report provides a comprehensive analysis of the E-Voting System, an innovative digital platform designed to enhance the efficiency, security, and transparency of elections. The system leverages Flask, SQLAlchemy, and cryptographic techniques to safeguard voter anonymity, ensure vote integrity, and facilitate real-time vote tallying.

Introduction

The E-Voting System was developed to address the challenges associated with traditional voting methods, including fraud, inefficiency, and logistical complexities.

Security Framework

The system integrates multiple security mechanisms to prevent tampering and unauthorized access such as public-key cryptography, SHA-256 hashing, and SSL encryption.

Findings

The system successfully encrypts and digitally signs votes, prevents multi-voting, and offers an intuitive user experience.

Recommendations

Blockchain integration, multi-factor authentication, mobile app development, and cloud-based

infrastructure are recommended for improved scalability and security.

Future Work

Future enhancements include AI-driven fraud detection, decentralized voting models, and adapting the system for international elections.