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CST – 452

Milestone 6:

Final Project Completion

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**Final Project Proposal**

**Project Name: VoteSafe**

**Objective:** VoteSafe is an internet-facing voter verification and registration web application designed to ensure electoral integrity, accessibility, and security. The project focuses on providing a seamless registration process, secure verification, and voter education while maintaining high privacy standards.

**Scope:**

* User-friendly voter registration system
* Secure identity verification with database authentication
* Informational resources on election processes
* Compliance with legal voting requirements

**Technology Stack:**

* Frontend: HTML, CSS
* Backend: PHP (for database interactions)
* Database: MySQL

**Expected Outcome:** A fully functional web-based system that simplifies the voter registration and verification process, ensuring accuracy, security, and accessibility.

**Requirements Document**

**Functional Requirements:**

1. Users can create an account and register with required credentials.
2. Secure login system with authentication.
3. Database storage and retrieval for registered voters.
4. Search functionality to verify voter registration status.
5. Admin panel for managing registered users.

**Non-Functional Requirements:**

1. Secure encryption for stored user data.
2. Responsive UI for accessibility across devices.
3. Compliance with security best practices.
4. Minimalistic and intuitive design.
5. Performance optimization for database queries.

**Architecture Plan**

**System Overview:**

VoteSafe follows a simple three-tier architecture:

1. **Presentation Layer (Frontend):** HTML and CSS provide a clean user interface.
2. **Application Layer (Backend):** PHP handles user authentication and database interactions.
3. **Data Layer (Database):** MySQL stores user registration details and verification status.

**System Components:**

1. **User Interface (UI):**
   * Registration form (HTML & CSS)
   * Login and verification pages
2. **Backend Processing (PHP):**
   * User authentication logic
   * Form submission handling
   * Database queries for voter verification
3. **Database (MySQL):**
   * Users table (id, name, email, password, voter ID)
   * Admins table for managing user data

**Data Flow:**

1. User submits registration form → PHP validates data → MySQL stores the record.
2. User logs in → PHP checks credentials → Grants access.
3. Admin views registered users → Manages voter records