**System Architecture of Labour Union CRM**

**1. Presentation Layer**

* **User Interface (UI)**: Developed using TailwindCSS and Tailwind Crispy forms for a responsive and user-friendly interface.
* **Client-side Logic**: Uses JavaScript and HTMX for dynamic content updates and interactions without full page reloads.

**2. Application Layer**

* **Backend Framework**: Python Django will handle the business logic, request processing, and serve the web pages.
* **APIs**: Django REST Framework (DRF) will expose RESTful APIs for mobile apps and third-party integrations.
* **Authentication and Authorization**: Django’s built-in authentication system with extensions for OAuth2 (Google, Facebook) to support third-party logins.

**3. Business Logic Layer**

* **Modules**:
	+ **Member Management**: Handles member registration, profile management, dues tracking, and status updates.
	+ **Case Management**: Manages case logging, tracking, document management, and resolution reporting.
	+ **Campaign Management**: Supports campaign planning, execution, progress tracking, and effectiveness reporting.
	+ **Meeting Management**: Facilitates meeting scheduling, agenda creation, participant tracking, and follow-up management.
	+ **Communication Management**: Mass communication, communication history, and automated notifications.
	+ **Event Management**: Event scheduling, registration, attendance tracking, and reminders.
	+ **Reporting and Analytics**: Customizable reports, visual dashboards, and analytics.
	+ **Document Management**: Secure storage, versioning, and access control for documents.
	+ **Workflow Management**: Workflow definitions, progress tracking, and efficiency reporting.

**4. Data Access Layer**

* **Database**: MySQL for storing structured data including member information, cases, payments, events, and communications.
* **ORM**: Django ORM for database operations and ensuring database-agnostic code.

**5. Integration Layer**

* **External APIs**: Integration with external services like IEC for voter status verification.
* **Email and SMS Services**: Third-party services (e.g., Twilio for SMS, SendGrid for emails) for communication.

**6. Security Layer**

* **Role-Based Access Control (RBAC)**: Define roles (admin, member, case manager) and permissions to restrict access.
* **Encryption**: HTTPS for data in transit, and encryption for sensitive data at rest.
* **Audit Logs**: Track and log user activities for security and compliance.