Table of Contents

Overview

Introduction to the Project:

CertiMeet is a dynamic MERN stack application designed to streamline the process of certificate generation and meeting management. By integrating interactive client-side views with robust server-side functionality, CertiMeet provides a seamless user experience for individuals and organizations.

Purpose and Objective of the Application:

The main purpose of CertiMeet is to simplify administrative tasks associated with event management and certificate issuance. The objectives include:

- Providing a user-friendly interface for creating and managing certificates.

- Implementing a secure and efficient meeting scheduling system.
- Enabling multiple actors, including administrators and users, to interact with the system effectively.
- Ensuring data security and accuracy through authentication and business logic implementation.

Business Name and Problem Statement:

Business Name: CertiMeet

Problem Statement: Many organizations struggle with the time-consuming and error-prone tasks of managing meetings and issuing certificates. Traditional methods often lead to inefficiencies, data inconsistencies, and lack of user engagement. CertiMeet addresses these challenges by offering a comprehensive platform that automates these processes while maintaining flexibility and scalability.

Scope of the Project

Defined functionalities:

CertiMeet offers a range of functionalities to ensure a seamless user experience:

- User Authentication and Authorization: Secure login and role-based access.
- Certificate Generation: Dynamic creation and customization of certificates.
- Meeting Management: Scheduling, organizing, and managing meetings effectively.
- Multi-Actor System: Support for administrators, users, and other relevant roles.
- Real-Time Data Updates: Ensuring synchronization and accuracy across all modules.

Purpose of Online Presence:

The online presence of CertiMeet aims to:

- Provide a centralized platform for managing certificates and meetings.
- Enhance user accessibility and interaction through a web-based interface.
- Ensure real-time availability of services, reducing manual effort and time.

- Improve organizational efficiency and user satisfaction by offering automated solutions.

Services offered:

CertiMeet provides the following services:

- **Custom Certificate Design:** Create, modify, and distribute professional certificates.
- **Meeting Scheduling and Management:** Plan and coordinate meetings with minimal effort.
- **User Role Management:** Assign and manage roles for administrators, users, and guests.
- **Data Security and Analytics:** Secure storage and insightful analytics for better decision-making.

Technology Stack

Frontend Technologies:

- React.js for building interactive user interfaces.
- Tailwind CSS for styling and responsive design.
- Axios for API integration.

Backend Technologies:

- Node.js with Express.js for server-side development.
- Mongoose for database schema management and interaction.

Database:

MongoDB as the primary database for storing user and system data.

Other Tools:

- Git for version control and collaboration.
- Postman for API testing.

- JWT (JSON Web Tokens) for user authentication.

Fulfillments of Requirements

Single Page Application:

CertiMeet is designed as a SPA, ensuring smooth navigation and a dynamic user experience without page reloads.

Backend with CRUD operations and Business Logic:

The backend supports:

- **Create:** Adding new users, certificates, and meetings.
- **Read:** Viewing details for certificates, meetings, files and HTML templates.
- **Update:** Modifying existing records.
- **Delete:** Removing redundant or outdated records.

Multiple Actors:

CertiMeet supports multiple user roles:

- **Administrator:** Manages the system and oversees all operations.
- **User:** Schedules meetings and generates certificates.
- **Visitor:** Visits the site, verify the certificate.

User Authentication:

JWT-based authentication ensures secure access. Role-based authorization controls functionality access per user type.

Frontend Implementation:

React.js components, props, and states manage the dynamic UI. Axios fetches data from the REST API.

CSS and Styling:

Tailwind CSS ensures a modern and responsive UI, compatible with various devices.

Database Schema:

MongoDB with Mongoose defines clear schema specifications for users, certificates, and meetings.

System Architecture

Overview of the Architecture:

CertiMeet follows the MERN stack architecture:

- **Frontend:** React.js for UI.
- **Backend:** Node.js with Express.js for API and business logic.
- **Database:** MongoDB for data persistence.
- **Integration:** Components interact via REST APIs.

Interaction between Components:

- User interactions trigger frontend actions.
- API calls fetch or update data from the backend.
- Real-time updates reflect changes across components.

Main Functionalities

User Authentication:

- Secure login/logout.
- Role-based access control.

Key Functional Modules

Module 1: User Management

- Profile creation and updates.
- Role assignment.

Module 2: Upload and Management of CSV/Excel Files

- File upload and parsing.
- Data validation and storage.

Module 3: Creation and Management of HTML Templates for Certificates

- Dynamic design of certificates.
- Templates storage and retrieval.

Module 4: Certificates Generation, Download and Deletion

- Generation of certificates based on uploaded files and templates.
- Download certificates in various formats.
- Delete certificates from the database.

Module 5: Meeting Scheduling

- Create and manage meeting schedules.
- Participant management.

Module 6: Sending Emails

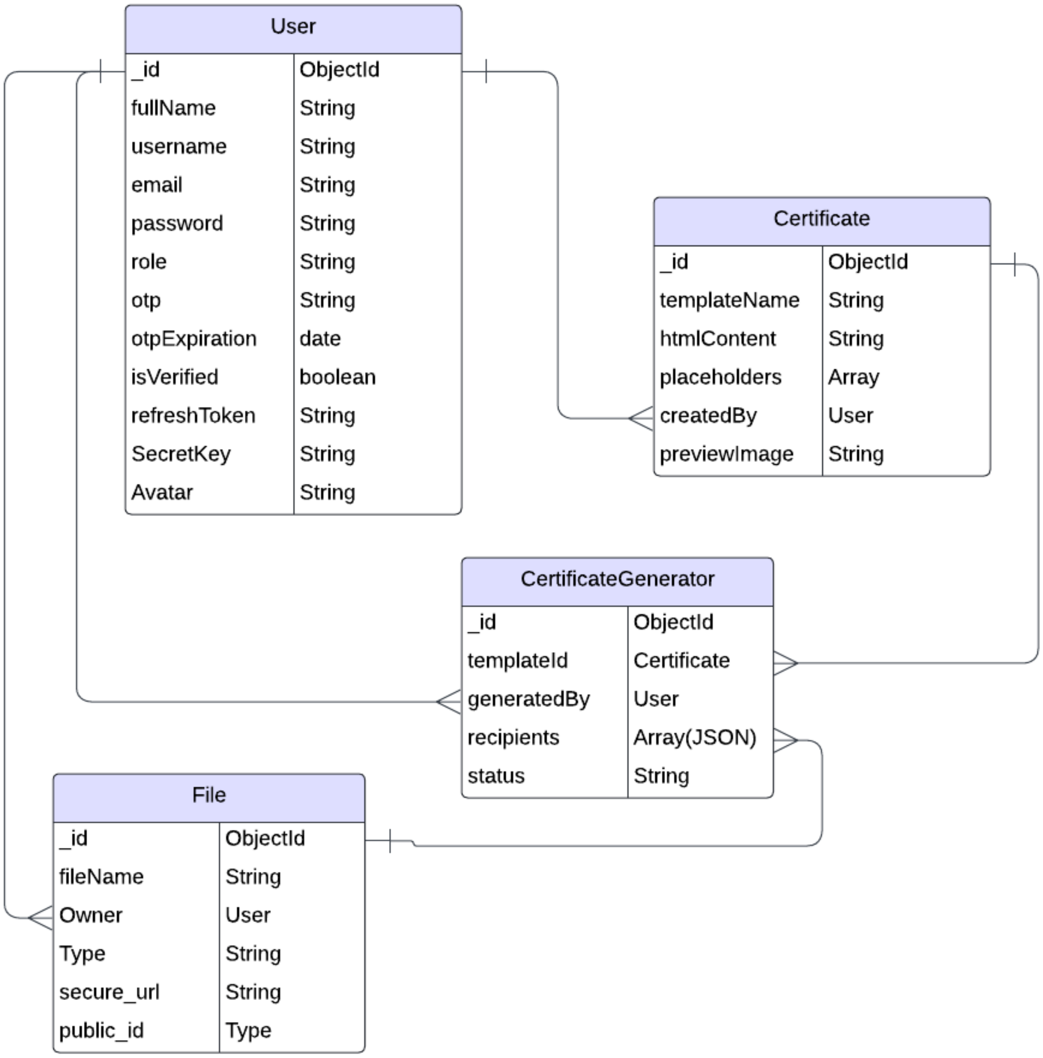
- Automated email generation and dispatch.
- Tracking email status.

Error Handling and Logging:

- Comprehensive error messages.
- Logging system to track and debug issues.

Database Design

Entity-Relation Diagram:



User	
_id	ObjectId
fullName	String
username	String
email	String
password	String
role	String
otp	String
otpExpiration	date
isVerified	boolean
refreshToken	String
SecretKey	String
Avatar	String

Certificate	
_id	ObjectId
templateName	String
htmlContent	String
placeholders	Array
createdBy	User
previewImage	String

CertificateGenerator	
_id	ObjectId
templateId	Certificate
generatedBy	User
recipients	Array(JSON)
status	String

File	
_id	ObjectId
fileName	String
Owner	User
Type	String
secure_url	String
public_id	Type

Database Relationships:

- Users can have multiple certificates, files, templates and meetings.
- One Certificate is based on a file and a template and belongs to a specific user.

RESTful API

User Management Routes:

Register User

- **Route:** /register
- **Method:** POST
- **Description:** Registers a new user. No avatar upload is performed here.

Verify OTP

- **Route:** /verify-otp
- **Method:** POST
- **Description:** Verifies the OTP sent during signup.

Login User

- **Route:** /login
- **Method:** POST
- **Description:** Logs in a user.

Logout User (Protected)

- **Route:** /logout
- **Method:** POST
- **Middleware:** verifyJWT
- **Description:** Logs out a user. Requires a valid JWT token.

Change Password (Protected)

- **Route:** /change-password
- **Method:** PUT
- **Middleware:** verifyJWT
- **Description:** Allows a user to change their password.

Change Full Name (Protected)

- **Route:** /change-full-name
- **Method:** PUT
- **Middleware:** verifyJWT
- **Description:** Updates the user's full name.

Change Username (Protected)

- **Route:** /change-username
- **Method:** PUT
- **Middleware:** verifyJWT
- **Description:** Updates the user's username.

Change Email (Protected)

- **Route:** /change-email
- **Method:** PUT
- **Middleware:** verifyJWT
- **Description:** Updates the user's email address.

Upload Avatar (Protected)

- **Route:** /upload-avatar
- **Method:** POST
- **Middleware:** verifyJWT, upload.single("avatar")
- **Description:** Uploads an avatar for the user.

File Management Routes:

Upload File (Protected)

- **Route:** /upload
- **Method:** POST
- **Middleware:** verifyJWT, upload.single("file")
- **Description:** Allows users to upload a file.

Get Specific File (Protected)

- **Route:** /getFile/:fileId
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Fetches a specific file using its ID.

Get All Files (Protected)

- **Route:** /getAllFiles
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Fetches all files uploaded by the logged-in user.

Delete Specific File (Protected)

- **Route:** /deleteFile/:fileId
- **Method:** DELETE
- **Middleware:** verifyJWT
- **Description:** Deletes a specific file using its ID.

Delete All Files (Protected)

- **Route:** /deleteAllFiles
- **Method:** DELETE
- **Middleware:** verifyJWT
- **Description:** Deletes all files uploaded by the logged-in user.

Certificate Template Management Routes

Create Template (Protected)

- **Route:** /create-template
- **Method:** POST
- **Middleware:** verifyJWT
- **Description:** Creates a new certificate template.

Get Template by ID (Protected)

- **Route:** /get-template/:id
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Fetches a single certificate template by its ID.

Get All Templates (Protected)

- **Route:** /get-templates
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Fetches all templates for the logged-in user.

Delete Template by ID (Protected)

- **Route:** /delete-template/:id
- **Method:** DELETE
- **Middleware:** verifyJWT
- **Description:** Deletes a specific template using its ID.

Delete All Templates (Protected)

- **Route:** /delete-all-templates
- **Method:** DELETE
- **Middleware:** verifyJWT
- **Description:** Deletes all templates for the logged-in user.

Certificate Generation Routes:

Generate Certificates (Protected)

- **Route:** /generate
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Generates certificates for participants.

Download Certificates as ZIP (Protected)

- **Route:** /download/:generatedCertificateId
- **Method:** GET
- **Middleware:** verifyJWT
- **Description:** Downloads all certificates for a specific generation ID as a ZIP file.

Send Certificates via Email (Protected)

- **Route:** /send-certificates/:generatedCertificateId
- **Method:** POST
- **Middleware:** verifyJWT
- **Description:** Sends certificates to participants via email.

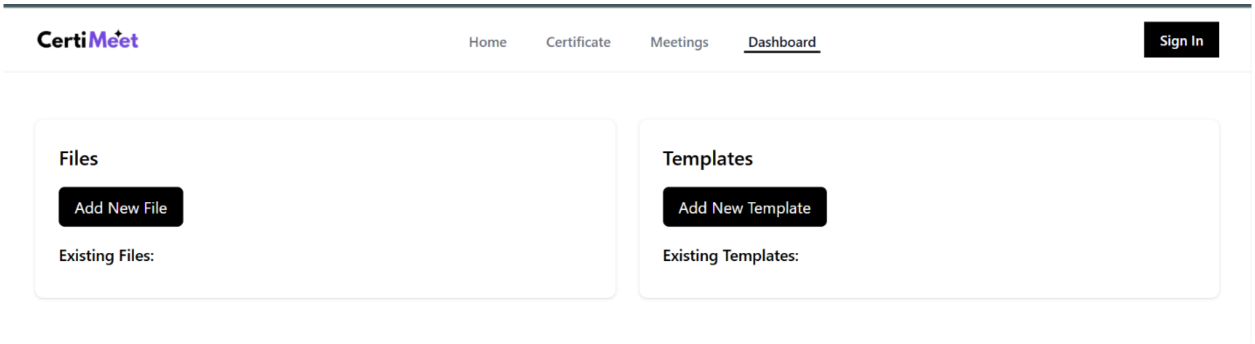
Delete Generated Certificates (Protected)

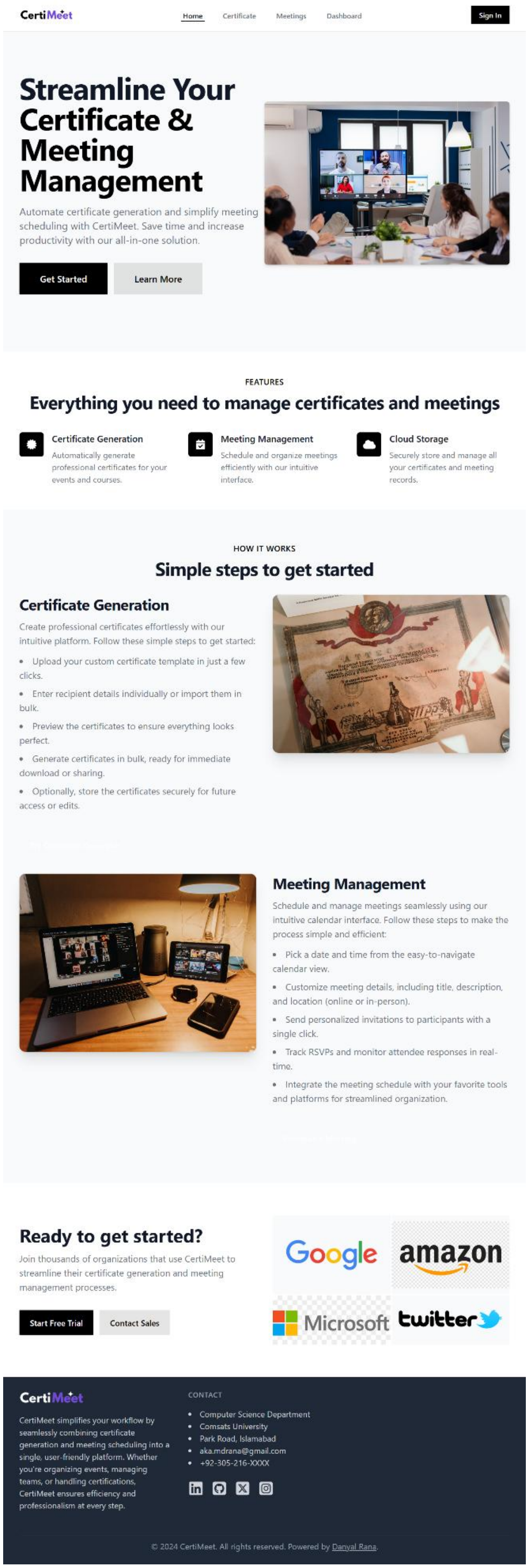
- **Route:** /delete/:generatedCertificateId
- **Method:** DELETE
- **Middleware:** verifyJWT
- **Description:** Deletes generated certificates for a specific generation ID.

GitHub Repository:

- Access the source code and documentation on GitHub.

User Interface Design





Streamline Your Certificate & Meeting Management

Automate certificate generation and simplify meeting scheduling with CertiMeet. Save time and increase productivity with our all-in-one solution.

FEATURES

Everything you need to manage certificates and meetings

Certificate Generation

Automatically generate professional certificates for your events and courses.

Meeting Management

Schedule and organize meetings efficiently with our intuitive interface.

Cloud Storage

Securely store and manage all your certificates and meeting records.

HOW IT WORKS

Simple steps to get started

Certificate Generation

Create professional certificates effortlessly with our intuitive platform. Follow these simple steps to get started:

- Upload your custom certificate template in just a few clicks.
- Enter recipient details individually or import them in bulk.
- Preview the certificates to ensure everything looks perfect.
- Generate certificates in bulk, ready for immediate download or sharing.
- Optionally, store the certificates securely for future access or edits.

Meeting Management

Schedule and manage meetings seamlessly using our intuitive calendar interface. Follow these steps to make the process simple and efficient:

- Pick a date and time from the easy-to-navigate calendar view.
- Customize meeting details, including title, description, and location (online or in-person).
- Send personalized invitations to participants with a single click.
- Track RSVPs and monitor attendee responses in real-time.
- Integrate the meeting schedule with your favorite tools and platforms for streamlined organization.

Ready to get started?

Join thousands of organizations that use CertiMeet to streamline their certificate generation and meeting management processes.

CertiMeet simplifies your workflow by seamlessly combining certificate generation and meeting scheduling into a single, user-friendly platform. Whether you're organizing events, managing teams, or handling certifications, CertiMeet ensures efficiency and professionalism at every step.

CONTACT

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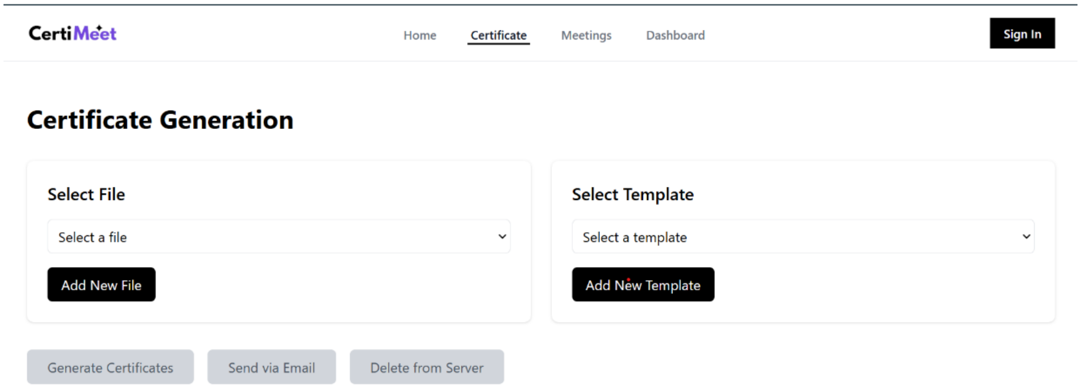
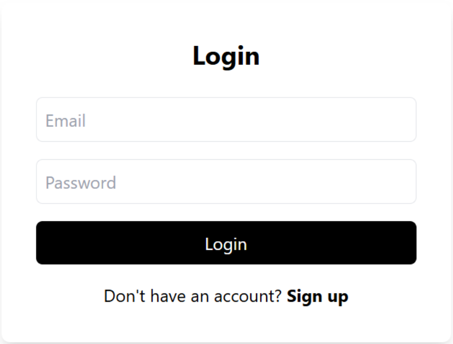


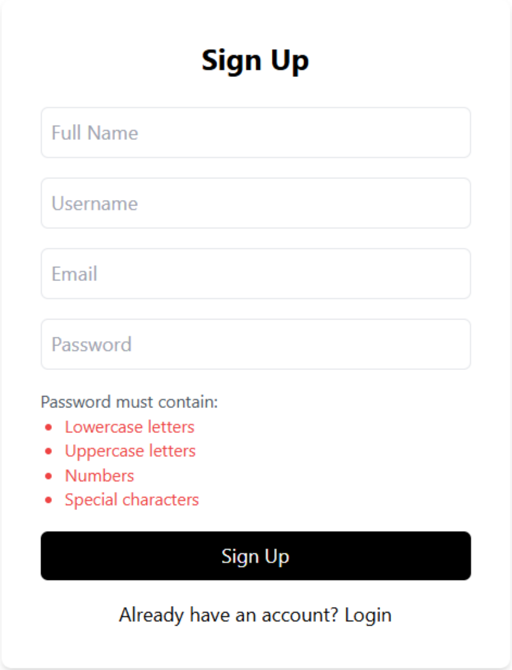
Certificate Generation

Select File

Select Template


Login

Don't have an account? **Sign up**


Sign Up

Password must contain:

- Lowercase letters
- Uppercase letters
- Numbers
- Special characters

Already have an account? Login