

# Comsats University Islamabad



## Assignment 3

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## Project Description

CertiMeet is a platform designed to create and generate PDF certificates efficiently based on data provided in CSV or Excel files. The platform streamlines the certificate generation process by allowing users to upload participant details, customize templates, and produce certificates in bulk. CertiMeet aims to simplify certificate distribution, ensuring a user-friendly and time-saving experience.

## API Modules & Routes Structure

### 1. Authentication Module

**Base Path:** /api/auth

- **POST /register** - User registration
  - **Normal:** Creates a new user, returns 201
  - **Exception:** Username/email exists (400)
  - **Requires:** username, email, password, country
- **POST /verify-otp** - Verify OTP
  - **Normal:** Verifies OTP for signup, returns 200
- **POST /login** - User authentication
  - **Normal:** Returns user info & sets cookie, 200
  - **Exceptions:**
    - User not found (404)
    - Wrong credentials (400)
- **POST /logout** - User logout
  - **Normal:** Clears cookie, returns 200
- **PUT /change-password** - Change password (protected)
  - **Normal:** Updates password, 200
- **PUT /change-full-name** - Change full name (protected)
  - **Normal:** Updates full name, 200
- **PUT /change-username** - Change username (protected)

- **Normal:** Updates username, 200
- **PUT /change-email** - Change email (protected)
  - **Normal:** Updates email, 200
- **POST /upload-avatar** - Upload avatar (protected)
  - **Normal:** Uploads user avatar, 201

## 2. File Module

**Base Path:** /api/files

- **POST /upload** - Upload a file
  - **Normal:** Uploads file, returns 201
  - **Protected:** Requires JWT token
- **GET /getFile/:fileId** - Get a specific file
  - **Normal:** Returns file, 200
- **GET /getAllFiles** - Get all user files
  - **Normal:** Returns files list, 200
- **DELETE /deleteFile/:fileId** - Delete a specific file
  - **Normal:** Deletes file, 200
- **DELETE /deleteAllFiles** - Delete all files
  - **Normal:** Deletes all user files, 200

## 3. Certificate Template Module

**Base Path:** /api/templates

- **POST /create-template** - Create a certificate template (protected)
  - **Normal:** Creates template, returns 201
- **GET /get-template/:id** - Get a specific template by ID (protected)
  - **Normal:** Returns template, 200
- **GET /get-templates** - Get all user templates (protected)
  - **Normal:** Returns templates list, 200

- **DELETE /delete-template/:id** - Delete a specific template by ID (protected)
  - **Normal:** Deletes template, 200
- **DELETE /delete-all-templates** - Delete all user templates (protected)
  - **Normal:** Deletes all templates, 200

#### 4. Certificate Generation Module

**Base Path:** /api/certificates

- **POST /generate** - Generate certificates
  - **Normal:** Generates certificates, returns 201
- **GET /download** - Download certificates as ZIP
  - **Normal:** Returns ZIP file, 200
- **POST /send-certificates** - Send certificates to emails
  - **Normal:** Sends emails, returns 200

#### Common Error Scenarios

##### 1. Authentication Failures

- Invalid JWT token
- Expired sessions
- Missing permissions

##### 2. Resource Access

- Not found (404)
- Unauthorized access (403)
- Invalid ownership

##### 3. Data Validation

- Missing required fields
- Invalid data formats
- Business rule violations

#### Security Measures

- **JWT-based authentication**
- **Cookie-based token storage**
- **Role-based access control (user/visitor)**