Alexandria National University

Faculty of Computers and Data Science
Data Integrity & Authentication Course

Secure Document Vault with Authentication, Integrity, and Encryption

Team Participants

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Introduction

Overview

This is a secure and feature-rich Document Management System designed to provide organizations with a robust platform for managing, storing, and sharing documents while maintaining high security standards. The system implements security measures and offers a user-friendly interface for document handling.

Core Features

Document Management

- Secure Document Upload & Storage*

- Drag-and-drop functionality for easy file uploads

- Support for various file types

- Automatic file organization and storage

- Version control system for document tracking

Security Features

Advanced Encryption

- AES-256-CBC encryption for document storage

- RSA public/private key pairs for secure key exchange

- Digital signatures for document integrity verification

- HMAC-SHA256 signatures for additional security

Access Control

- Role-based access control (RBAC)

- Granular permission management

- Document sharing capabilities with customizable access levels

- Secure session management

Authentication System

- Multiple Authentication Methods

- Traditional username/password login

- GitHub OAuth 2.0 integration

- Secure password storage using bcrypt

- Session management with prevention of session fixation

User Management

- Admin and regular user roles

- Customizable permissions

- User activity logging

- Profile management

Document Operations

- Core Functionality

- Document upload and download

- Document sharing and collaboration

Administrative Features

- Admin Dashboard

- User management

- Document oversight

- System monitoring

- Activity logging

Technical Architecture

Security Implementation

Document Security

 - File encryption using AES-256-CBC

 - Digital signatures using RSA

 - HMAC verification for integrity

 - Secure key management

System Security

 - Input validation and sanitization

 - CSRF protection

- Secure headers

 - Prevention of back navigation after logout

 - Activity logging and monitoring

System Requirements

- PHP 7.4 or higher

- MySQL 5.7 or higher

- Web server (XAMPP or similar)

- GitHub OAuth App credentials (for OAuth integration)

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This Document Management System provides a comprehensive solution for organizations requiring secure document handling, with emphasis on security, usability, and scalability. The system's architecture ensures data integrity while providing a smooth user experience for document management operations.

Our System Home page:

Document Management System

Your Secure Document Management Solution

Simplify your workflow with secure storage, easy sharing, and robust access control, tailored for legal, HR, and enterprise environments.

GET STARTED TODAY →   **EXISTING USER? LOGIN ⊡**

Key Features Designed for Your Needs

Effortless Document Upload & Storage

Securely store and organize documents with easy drag-and-drop functionality.

Advanced Role-Based Access Control

Define granular permissions for different user roles, ensuring data security.

Integrated Digital Document Signing

Facilitate legally binding electronic signatures directly within the platform.

Secure Document Sharing & Collaboration

Share documents with internal and external stakeholders securely.

Comprehensive Version Control

Track every change and easily revert to previous document versions.

Intuitive Admin Dashboard

Powerful tools for administrators to manage users, roles, and monitor system activity.

What Our Clients Say

"This document management system has revolutionized our HR processes. It's intuitive, secure, and the role-based access is exactly what we needed."

— Kareem Ahmed, HR Manager

Start Managing Your Documents Efficiently Today

Join thousands of professionals who trust our secure platform.

SIGN UP NOW ⧍   **ALREADY A MEMBER? LOGIN ⊡**

Our Signup Page:

We can Signup a new user to our system by multiple Authentiaction Methods

Create Account

Join our secure platform today

OR

👤 Username

✉ Email

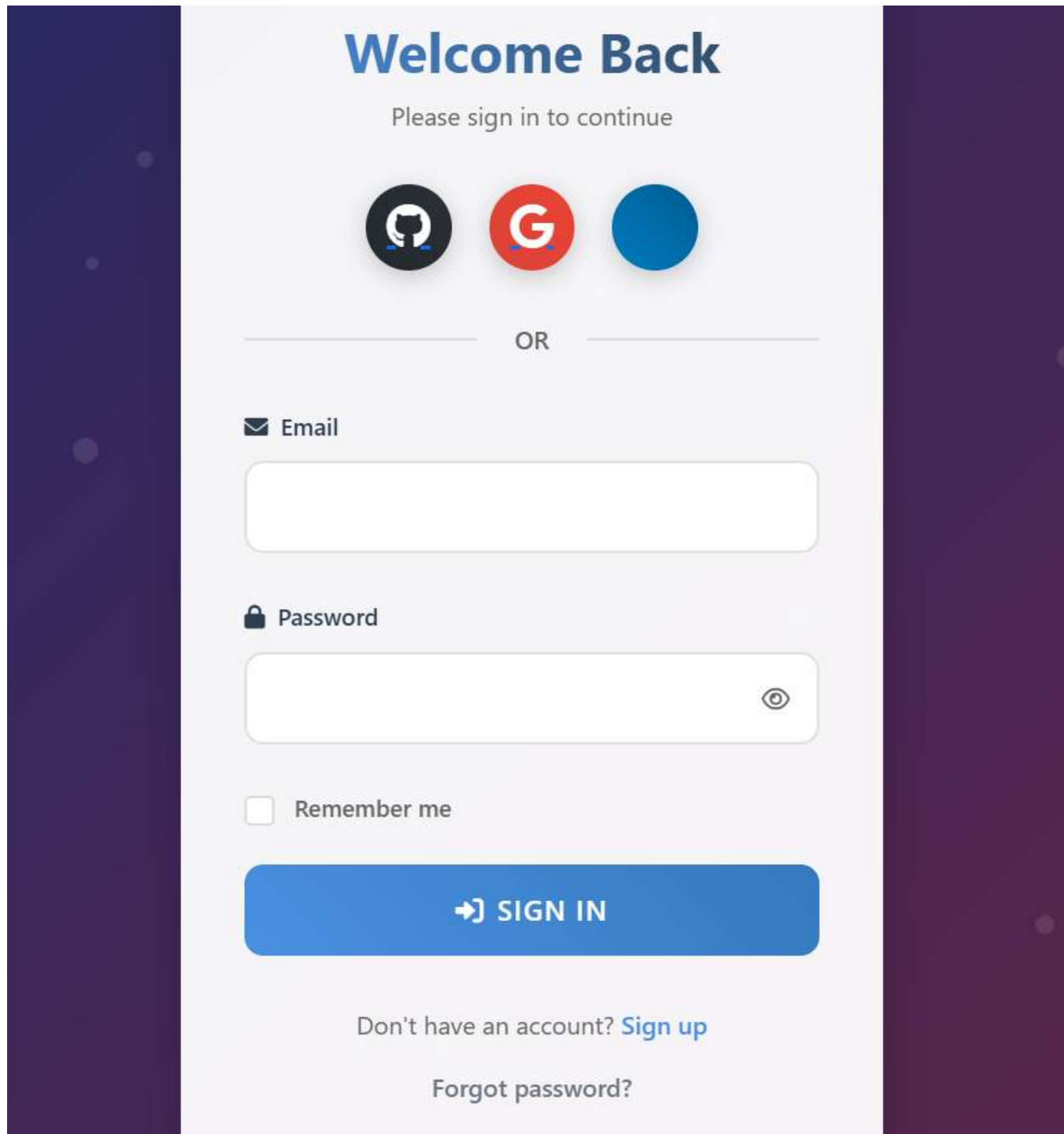🔒 Password

Password strength: None

🔒 Confirm Password

☐ I agree to the **Terms and Conditions**

👤⁺ CREATE ACCOUNT

Already have an account? **Sign in**

Our Login Page:

The system implements a dual authentication approach featuring both traditional username/password login and GitHub OAuth 2.0 integration, with robust security measures including bcrypt password hashing, session management with anti-fixation protection, comprehensive login activity logging, and prevention of back navigation after logout, all wrapped in a clean and responsive user interface.

Our Admin Dashboard Page:

Welcome Back

Please sign in to continue :

OR

Email

admin@system.com

Password

password

Remember me

→] SIGN IN

Don't have an account? Sign up

Admin Panel

- Dashboard
- Users
- Roles
- Documents
- System Logs
- Logout

10	10	2	111
Total Users	Total Documents	Total Roles	Recent Activities

User Management

[& ADD USER]

USERNAME	EMAIL	ROLE	AUTH METHOD	STATUS	DOCUMENTS	ACTIONS
kareem	kareem@gmail.com	user	Manual	Active	0	
Adham123-prog	2205087@anu.edu.eg	user	GitHub	Active	0	
omar	omar@gmail.com	user	Manual	Active	2	

Admin Panel

- Dashboard
- Users
- Roles
- Documents
- System Logs
- Logout

Role Management

[⊕ ADD ROLE]

ROLE NAME	ACTIONS
admin	
user	

Document Management

[⬆ UPLOAD DOCUMENT]

TITLE	DESCRIPTION	UPLOADED BY	TYPE	SIZE	UPLOADED	ACTIONS
ssssss	ssssssssssssssssssssssssssssssssssssssssssssssssssadmin	System Admin	application/pdf	383.99 KB	May 21, 2025	

System Logs

USER	ACTION	DETAILS	IP ADDRESS	TIME
omar	download	Downloaded and verified document: ssssss	::1	May 21, 2025 23:08:47
System Admin	download	Downloaded and verified document: ssssss	::1	May 21, 2025 23:08:01
System Admin	upload	Uploaded and signed document: ssssss	::1	May 21, 2025 23:07:58
omar	download	Downloaded and verified document: seram	::1	May 21, 2025 23:07:14
omar	download	Downloaded and verified document: ssssss	::1	May 21, 2025 23:07:12
omar	download	Downloaded and verified document: ssssss	::1	May 21, 2025 23:06:39
omar	download	Downloaded and verified document: dsd	::1	May 21, 2025 23:06:38
omar	upload	Uploaded and signed document: dsd	::1	May 21, 2025 23:06:34
omar	download	Downloaded and verified document: ssssss	::1	May 21, 2025 23:06:22

The Admin Dashboard provides comprehensive system management capabilities, featuring user management, document oversight, and system monitoring tools, with key functionalities including total user/document/role statistics, recent activity logs, document management with upload/delete capabilities, and role-based access control, all presented through an intuitive interface with real-time updates and secure administrative controls.

Registering new user to the system:

Username

Fares

Email

fares@gmail.com

Password

Omar@2004

Password strength: Strong

Confirm Password

Omar@2004

☑ I agree to the **Terms and Conditions**

👤+ CREATE ACCOUNT

Already have an account? **Sign in**

After Registering new User it will take me to the Multi-Factor Authentication Page like this as I will scan the QR Code on Google Authenticator then Entering the OTP to Verify

Setup Two-Factor Authentication

1 Download Google Authenticator
Install Google Authenticator on your mobile device from the App Store or Google Play Store.

2 Scan QR Code
Open Google Authenticator and scan this QR code:
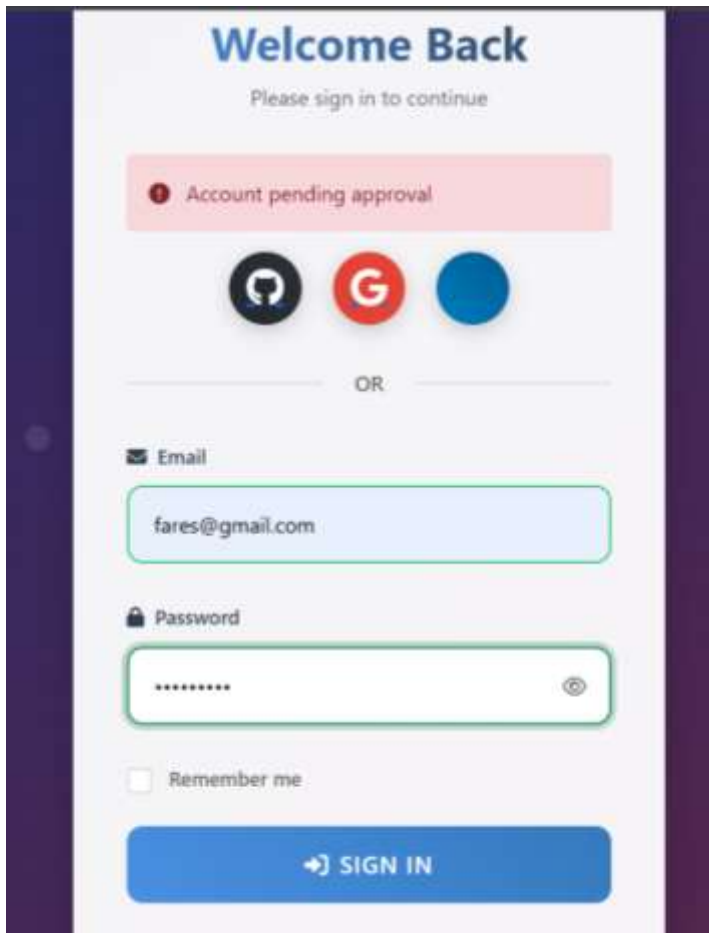
3 Enter Verification Code
Enter the 6-digit code from Google Authenticator to verify setup:

Enter 6-digit code   ⊘ Verify

ⓘ **Note:** Keep your backup codes in a safe place. You'll need them if you lose access to your authenticator app.

After that I will be redirected to Login Page and if I tried to enter it will say that it Pending for the Admin Approval to user to enter the system :

Welcome Back

Please sign in to continue

⊖ Account pending approval

OR

✉ Email

fares@gmail.com

🔒 Password

•••••••••• ◎

☐ Remember me

➔) SIGN IN

After that an Admin Activate the new User Account from Admin Dashboard :

User Management   &⁺ ADD USER

USERNAME	EMAIL	ROLE	AUTH METHOD	STATUS	DOCUMENTS	ACTIONS
Fares	fares@gmail.com	No Role	⚲ Manual	Pending	0	✎ ⊙ 🗑

And After Activation it will look like this :

User Management   &⁺ ADD USER

USERNAME	EMAIL	ROLE	AUTH METHOD	STATUS	DOCUMENTS	ACTIONS
Fares	fares@gmail.com	user	⚲ Manual	Active	0	✎ 🗑

Now User Can Login with his Credentials to enter the User Dashboard

Document Management System   ⤷ Logout

👤 Profile

ⓘ Authentication Method

👤 **Manual**

You signed in using manual authentication

Username

| Fares |

Email

| fares@gmail.com |

Current Password

New Password

⊕ Upload Document

Document Title

Description

Select File

Choose File   No file chosen

⬆ UPLOAD DOCUMENT

The User Dashboard provides a personalized document management interface where users can upload, view, and manage their documents, with features including document sharing capabilities, access to shared documents from other users, document version control, and a clean interface displaying both user-owned and shared documents, all while maintaining strict security protocols and access controls.

▣ My Documents

TITLE	DESCRIPTION	TYPE	SIZE	UPLOADED	ACTIONS
New Document	Omar Magdy CV	application/octet-stream	0.02 KB	May 22, 2025	⬇ DOWNLOAD ⏴ SHARE ☑ SIGN ✎ EDIT DELETE

Shared with Me

No documents shared with you.

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