



CryptiDocs: A Safe and Open Web-Based Document Management System Employing
Role-Based Access Control and Metadata Encryption

UNDERGRADUATE THESIS

Submitted as one of the requirements to obtain

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Name
Individual Report Ghina.docx

Author
Ghina Fariha Rahman

Real-Time Integrated Smart Building Monitoring System with Prioritized Alerts
A Thesis
Submitted to the Faculty of Computer Science President University
In Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Informatics
By: GHINA FARIHA RAHMAN 001202200160

Basic scan

human

We are highly confident this text is entirely human

Probability breakdown

2% AI generated 0% Mixed 98% Human

ABSTRACT

In today's computerized world, secure and well-organized document management has become a critical necessity for businesses. Inadequate access control, the lack of adequate role-based restriction, and a lack of transparent monitoring of activity pose significant operational as well as security risks. To avoid these problems, CryptiDocs was designed as a safe web document management system utilizing Role-Based Access Control (RBAC), JSON Web Token (JWT)-based authentication, and activity logs to enable appropriate data handling, user accountability, and system integrity.

This personal report outlines my specific contributions as the backend programmer of CryptiDocs. My responsibilities were developing the core server-side framework using Node.js and Express.js, developing RESTful APIs to handle documents, performing secure uploads of files, and handling user authentication and authorization logic. I also deployed RBAC through custom middleware.

This is a documentation of the development process, backend architecture, results of implementation, and problems encountered along the way in the project. The report also highlights the pragmatic skills obtained in creating scalable, secure, and well-documented backend systems. CryptiDocs was a reliable solution to secure document handling, besides good hands-on experience with backend systems and integration.

Keywords:

Backend Development, Node.js, Express.js, RESTful API, JWT Authentication, Role-Based Access Control (RBAC), Secure File Upload, Document Management System,

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