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PROJECT SYNOPSIS

PERSONAL DOCUMENT VAULT

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PROJECT SYNOPSIS

1.1 Statement of Problem

In the contemporary digital landscape, a vast array of documents is generated daily across numerous sectors, including but not limited to our healthcare, finance, commerce, education, and personal endeavors such as travel. These documents often contain sensitive and confidential information crucial for personal, professional, and organizational purposes. However, the prevailing issue lies in the inadequate protection and management of these documents, leading to significant vulnerabilities and inefficiencies in workflow.

Firstly, the prevalent practice of storing sensitive documents in an unsecured manner on smart devices, including laptops, mobile phones, and tablets, or in hardcopy format leaves them susceptible to a myriad of threats. These threats range from sophisticated phishing attacks targeting digital documents to unauthorized access by individuals in physical proximity, jeopardizing the confidentiality, integrity, and availability of the information contained within.

Furthermore, the disorganized and scattered nature of these documents intensify the problem. They are often buried within cluttered folders alongside various file types, impeding effective retrieval and increasing the likelihood of accidental deletion or misplacement. Consequently, individuals and organizations experience inefficiencies in their daily workflows, spending valuable time and resources navigating through the chaos to locate critical documents when needed.

To address these challenges comprehensively, there is an urgent need for the development of a robust Personal Document Vault. This solution must prioritize the implementation of stringent security measures to safeguard documents during transmission and storage. Additionally, it should offer intuitive features for categorization, organization, and management, enabling users to efficiently track, access, and utilize their documents while maintaining data integrity and confidentiality.

By providing a secure, centralized repository for personal documents, the proposed Personal Document Vault will empower individuals and organizations to mitigate risks associated with unauthorized access and data breaches. Moreover, it will streamline document management processes, enhancing productivity and workflow efficiency in various domains. Thus, the development and adoption of such a solution are imperative to address the pressing challenges posed by the proliferation of sensitive documents in today's digital age.

1.2 Aim and Objective

The project aims to create a secure, efficient solution for managing personal documents, addressing challenges like inadequate protection and workflow in the digital age, while ensuring confidentiality and protection.

The above aim can be achieved through the following objectives:

- i. To implement stringent and multi-layered security measures.
- ii. To provide a centralized repository to house those documents.
- iii. To enable intuitive document organization and management.
- iv. To enhance productivity and workflow efficiency when working with the document.
- v. To provide a user-friendly interface to manage your documents

1.3 Tools and Facilities to be Used

Tools to be used are:

- i. Django Web Framework
- ii. Next Js
- iii. Bootstrap
- iv. Third party SDKs and APIs
- v. Google Authenticator Mobile App
- vi. Python Programming Language
- vii. Pycharm IDE
- viii. PostgreSQL

- ix. Unicorn and Nginx Server
- x. Git and Github
- xi. Node Js

1.4 Methods to be Used

The methods to be used are:

- i. Implement strong encryption method with Advanced Encryption Standard (AES) 256 bits combined with Rivest-Shamir-Adleman (RSA) to secure the documents.
- ii. Manage encryption keys with a QRCode-based image steganography using the Least Significant Bit (LSB) technique to thwart attackers.
- iii. Implement a high authentication methods to verify and validate users using normal authentication and Two Factor Authentication (2FA).
- iv. Employing secure communication protocols such as HTTPS or SFTP when transferring documents over networks to prevent eavesdropping and man-in-the-middle attacks.
- v. Implementing features for categorizing and tagging documents based on metadata such as content type, date, and relevance.
- vi. Implement a search feature for easy access of document.
- vii. Incorporating version control mechanisms to track document revisions and changes over time.
- viii. Logging all document-related activities, including access attempts, modifications, and deletions, to establish an audit trail.

1.5 Scope of Work

The scope of my work covers the essential components required to develop a secure, efficient, and user-friendly Personal Document Vault. It includes tasks related to security implementation, document organization and management, centralized repository, user experience and productivity, development methodology, deployment and maintenance, and documentation and training.

1.6 Expected Outcomes

The expected outcomes are:

- i. Impenetrable security posture that guarantees the confidentiality, integrity, and availability of sensitive personal documents through robust encryption, access controls, authentication protocols, and continuous security enhancements.
- ii. Provided a scalable, and reliable centralized repository that consolidates personal documents, mitigating risks associated with scattered storage while enabling seamless synchronization and access across multiple platforms and devices.
- iii. Intuitive and user-friendly interface that streamlines document categorization, retrieval, version control, and collaborative features, fostering efficient organization, management, and teamwork.
- iv. Significantly boost in productivity and efficiency across various domains, achieved by streamlining document management processes, reducing time and resources spent on locating and managing critical documents, and eliminating disorganization.
- v. Provide an intuitive, responsive, and cross-platform compatible interface that ensures ease of adoption, accessibility, and usability across diverse devices and operating systems.