Digital File Sharing & Workflow System

Problem Statement

Users often struggle with securely importing, sharing, and managing files across multiple applications. Existing solutions lack automatic format handling, easy digital signatures, seamless sharing, and controlled access options.

Proposed Solution

A workflow-based digital file management system that allows users to: 1. Enter details (basic information like full name). 2. Import files (any type). 3. Automatically convert file extensions to compatible formats. 4. Capture digital signatures for authentication. 5. Generate secure shareable links. 6. Provide controlled access (view-only or download).

Key Features

- File Import & Conversion (multi-format support). - Digital Signature Integration. - Secure File Links. - Access Control (View Only / Download). - Collaboration with multiple users.

Use Cases

- Education: Teachers share notes with view-only links. - Corporate: Teams collaborate on confidential files with digital signatures. - Healthcare: Patients upload prescriptions securely. - Legal: Lawyers exchange contracts with signatures & access control.

Indicative Tech Stack

- Frontend: React.js / Angular - Backend: Node.js / Express.js - Database: MongoDB / PostgreSQL - File Storage: AWS S3 / Google Cloud Storage - Authentication: OAuth 2.0 / JWT - Digital Signature: PKI, eSign APIs - File Conversion: LibreOffice SDK / CloudConvert API

Impact & Innovation

- Reduces manual overhead by automating file conversion. - Enhances security with signatures & access control. - Flexible sharing options (View-only / Download). - Encourages paperless workflows. - Unified system for storage, validation, and sharing.

Conclusion

This workflow system ensures a secure, efficient, and user-friendly way of managing digital files. It provides automated handling, integrated signatures, and controlled sharing, making it a modern innovation in digital collaboration.

Workflow Overview

```
User Input
    |
Import File
    |
Auto File Extension Conversion
    |
Digital Signature
    |
Generate File Link
   /        \
View Only   Download Option
```