**Document Library Project**

This repository contains the complete implementation of the Document Library system, which includes:

1. **Backend**: DocumentLibraryApi (C#/.NET API)
2. **Frontend**: document-library-app (React.js application)

Follow the steps below to set up, build, and run the project.

**Prerequisites**

Before you begin, ensure the following software and tools are installed on your machine:

**1. Install Node.js and npm**

* Download and install the latest stable version of Node.js from the [Node.js Official Website](https://nodejs.org/).
* Verify installation:

***node -v***

***npm -v***

**2. Install Required Editors and Tools**

* **Visual Studio**: Required for running and managing the backend (DocumentLibraryApi).
* **Visual Studio Code**: Recommended for working with the frontend (document-library-app).

**3. Configure Node.js Environment (Windows Users)**

1. Press ***Win + R***, type ***sysdm.cpl***, and press Enter to open System Properties.
2. Go to the **Advanced** tab and click **Environment Variables**.
3. Under **System Variables**, locate the Path variable and click **Edit**.
4. Add the path to your Node.js installation (e.g., C:\Program Files\nodejs\).
5. Click **OK** to save and close all windows.
6. Restart your terminal or command prompt.

**4. Install SQL Server and SQL Server Management Studio**

* Install **SQL Server** for database management.
* Install **SQL Server Management Studio (SSMS)** for interacting with the database.

**Project Structure**

/DocumentLibraryProject

/DocumentLibraryApi # Backend code

/document-library-app # Frontend code

README.md # Project documentation

**Setup Instructions**

**1. Backend Setup (DocumentLibraryApi)**

**Step 1. Open Project**

* Open the DocumentLibraryApi folder in **Visual Studio**.

**Step 2. Configure Database**

* Ensure the connection string in ***appsettings.json*** points to your SQL Server instance.

**Step 3. Update Database**

1. Navigate to **Tools -> NuGet Package Manager -> Package Manager Console**.
2. Run the following command:

***Update-Database***

1. Verify that the DocumentLibraryDb database has been created using **SQL Server Management Studio (SSMS)**.

**Step 4. Run the API**

* Press **F5** in Visual Studio to build and run the API.
* Verify the API is running at https://localhost:7160/ or the specified endpoint.

**2. Frontend Setup (document-library-app)**

**Step 1. Open Project**

* Open the document-library-app folder in **Visual Studio Code**.

**Step 2. Update API Base URL**

* Open the file ***api.ts*** where the API\_BASE\_URL is defined.
* Update the ***API\_BASE\_URL*** constant to match your backend API endpoint (e.g., https://localhost:7160/api/documents). Example:

const API\_BASE\_URL = ' https://localhost:7160/api/documents';

**Step 3. Install Dependencies**

* Open the terminal in VS Code and run:

***npm install***

* Verify the node\_modules folder has been created.

**Step 4. Build the Project**

* Run the following command:

***npm run build***

**Step 5. Start the Application**

* Start the development server:

***npm run start***

* Open the application in your browser at http://localhost:3000/.

**Running the Project**

1. **Start Backend (API)**:
   * Run the DocumentLibraryApi project in Visual Studio.
2. **Start Frontend (UI)**:
   * Run npm run start in the document-library-app project directory.
3. Verify that the frontend is correctly interacting with the backend by testing the application features.