# NoteNest - The Note-Taking App

## Overview

NoteNest is a full-stack note-taking application built with React.js, Node.js, Express.js, and MongoDB. The app includes features like JWT-based authentication, CRUD operations for notes, categorization, and auto-backup.

## Features

- User authentication using JWT  
- Create, Read, Update, Delete (CRUD) operations for notes  
- Categorization of notes  
- Auto-backup functionality

## Prerequisites

Before setting up NoteNest, ensure you have the following installed:  
  
- Node.js (Download: https://nodejs.org/)  
- MongoDB (Download: https://www.mongodb.com/try/download/community)  
- MongoDB Compass (GUI) (Download: https://www.mongodb.com/try/download/compass)  
- VS Code (Download: https://code.visualstudio.com/)

## Project Setup

1. Clone the Repository  
```  
cd path/to/your/directory  
git clone https://github.com/your-repo/NoteNest.git  
cd NoteNest  
```

2. Install Dependencies  
```  
npm install  
```

3. Configure Environment Variables  
Create a .env file in the root directory and add:  
```  
MONGO\_URI=your\_mongodb\_connection\_string  
JWT\_SECRET=your\_jwt\_secret  
PORT=5000  
```

4. Start the Backend Server  
```  
node server.js  
```  
The backend server will start at http://localhost:5000

5. Start the Frontend  
```  
cd frontend  
npm install  
npm start  
```  
The frontend will be available at http://localhost:3000

## API Endpoints

Authentication:  
- \*\*POST\*\* `/api/auth/register` - Register a new user  
- \*\*POST\*\* `/api/auth/login` - Login and receive a token

Notes:  
- \*\*GET\*\* `/api/notes` - Fetch all notes  
- \*\*POST\*\* `/api/notes` - Create a new note  
- \*\*PUT\*\* `/api/notes/:id` - Update a note  
- \*\*DELETE\*\* `/api/notes/:id` - Delete a note

## Technologies Used

- \*\*Frontend\*\*: React.js, Redux, Tailwind CSS  
- \*\*Backend\*\*: Node.js, Express.js, MongoDB  
- \*\*Authentication\*\*: JWT (JSON Web Tokens)  
- \*\*Database\*\*: MongoDB (Mongoose ODM)

## Conclusion

NoteNest is a simple and efficient note-taking application with full-stack capabilities. You can extend its functionality by adding features like real-time synchronization, rich-text editing, and cloud storage integration. 🚀  
  
For any issues, feel free to open an issue in the repository!