

Simple Ledger Management System

This repository contains the complete stack for the Simple Ledger Management System, designed for business owners to manage customer receivables and supplier payables.

The application uses a **MERN-like stack** (MongoDB + Express + React / Vite + Node.js).

Requirements

Before you begin, ensure you have the following tools installed on your system:

Tool	Version	Purpose
Node.js	v18+	JavaScript runtime environment.
npm	Latest	Package manager for Node.js.
MongoDB	N/A	Database (Atlas cloud service or local server).

Getting Started

1. Clone the Repository

Clone the project to your local machine and navigate into the directory:

```
git clone [https://github.com/gnavneetsai41/Ledger.git](https://github.com/gnavneetsai41/Ledger.git)
cd Ledger
```

Backend Setup (Node.js/Express)

The backend handles the data storage, business logic (calculating balances), and API endpoints.

2. Install Backend Dependencies

Navigate to the backend directory and install the necessary packages (Express, Mongoose, dotenv, etc.):

```
cd ledger-backend
npm install
```

3. Configure Environment Variables

Create a file named `.env` in the `ledger-backend` directory and add your MongoDB connection string and port:

```
# .env file in ledger-backend/
```

```
# Replace this with your connection string (local or MongoDB Atlas)
MONGO_URI="your-mongodb-connection-url"

# Port the server will listen on
PORT=5000
```

4. Start the Backend Server

Execute the `server.js` file to start the API:

```
node server.js
```

If successful, the output will show:

```
DB Connected successfully
Running on port 5000
```

Frontend Setup (React/Vite)

The frontend is a React application built with Vite, providing a clean, minimalist dashboard.

5. Install Frontend Dependencies

Open a **new terminal window**, navigate to the frontend directory, and install its dependencies:

```
cd ../ledger-app
npm install
```

6. Setup API URL

Create a file named `.env` in the `ledger-app` directory. This tells the React app where to find the backend API.

```
# .env file in ledger-app/

# VITE_ prefix is required for environment variables exposed to the browser via Vite
VITE_API_URL=http://localhost:5000/api
```

7. Start the Frontend Application

Run the Vite development server:

```
npm run dev
```

The output will show the local address, typically `http://localhost:5173/` . Open this URL in your browser.

Testing Local Development

After both servers are running, you can test connectivity:

Service	Address	Expected Outcome
Frontend App	<code>http://localhost:5173/</code>	The Ledger Dashboard UI loads.
Backend API Check	<code>http://localhost:5000/api/person</code>	A JSON array <code>[]</code> (if empty) or a list of person objects is returned.