

Crypto Tracking App – Documentation

Introduction

The Crypto Tracking App is a simple web application that provides real-time cryptocurrency prices, market trends, and news updates. It is built using Vue 3 for the frontend and Go for the backend. The frontend fetches data from the backend, which integrates with external APIs to provide the latest crypto-related information.

Features

- **Crypto Prices:** Displays real-time prices of popular cryptocurrencies with percentage changes.
 - **Market Trends:** Shows the current market trend and top movers.
 - **Crypto News:** Fetches the latest news related to cryptocurrencies.
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Installation and Setup

Prerequisites

- Node.js and npm installed
- Go installed

Backend Setup

1. Navigate to the backend directory.
2. Run the backend server using:

```
bash
```

```
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```

```
go run main.go
```

3. The backend will be running on `http://localhost:8080`.

Frontend Setup

1. Navigate to the frontend directory.
2. Install dependencies using:

bash

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npm install

3. Start the frontend server with:

bash

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npm run dev

4. The frontend will be available at <http://localhost:5173>.

Project Structure

Frontend (frontend/)

- main.js - Entry point for the Vue application.
- index.html - Main HTML template for the frontend.
- vite.config.js - Configuration for Vite.
- components/ - Contains Vue components:
 - App.vue - Root component.
 - CryptoPrices.vue - Displays cryptocurrency prices.
 - MarketTrends.vue - Shows market trends.
 - News.vue - Fetches and displays crypto news.

Backend (backend/)

- main.go - Entry point for the Go backend.
- server.go - Handles API routes and external API calls.

API Endpoints

Crypto Prices

Endpoint: GET /api/crypto

Description: Returns a list of real-time cryptocurrency prices and percentage changes.

Market Trends

Endpoint: GET /api/market-trends

Description: Provides the current market trend and top-moving cryptocurrencies.

Crypto News

Endpoint: GET /api/news

Description: Fetches the latest cryptocurrency-related news from external sources.

Usage

1. Start the backend first using `go run main.go`.
 2. Then, start the frontend using `npm run dev`.
 3. Open `http://localhost:5173` in your browser to use the app.
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Troubleshooting

- If API requests fail, check that the backend is running on the correct port.
 - If styles don't apply correctly, ensure dependencies are installed with `npm install`.
 - If the frontend does not start, check for errors in `vite.config.js` or `package.json`.
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Technologies Used

- **Frontend:** Vue 3, Vite
 - **Backend:** Go (net/http)
 - **Database:** Not applicable (fetching data from external APIs)
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Future Improvements

- Add user authentication for personalized watchlists.
- Implement WebSocket for real-time price updates.
- Improve UI/UX with better styling.