

Project Documentation

Introduction

Title: **Cryptocurrency Dashboard Cryptoverse**

The Cryptocurrency Dashboard is a web application built using React, CoinGecko API, and Chart.js. It allows users to view trending cryptocurrencies and analyze their historical price trends through charts.

Team Members:

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Project Overview

The Cryptocurrency Dashboard is a dynamic and interactive web application designed to provide real-time insights into the cryptocurrency market. Built using React, it leverages the CoinGecko API to fetch up-to-date market data, including current prices, market capitalization, and trading volume of various cryptocurrencies.

A key feature of the dashboard is its data visualization, powered by Chart.js, allowing users to analyze historical price trends through intuitive and visually appealing charts. The platform also highlights trending cryptocurrencies, helping users stay informed about market movements.

With a sleek and responsive user interface, the Cryptocurrency Dashboard serves as a valuable tool for crypto enthusiasts, traders, and analysts looking for a quick and efficient way to track market trends.

Purpose

- Provide users with real-time data on top-trending cryptocurrencies.
- Display historical price trends through interactive charts.
- Enhance user experience with a clean and intuitive UI.

Features

- Displays top trending cryptocurrencies fetched from the CoinGecko API.
- Interactive chart visualization for historical price trends.
- Responsive design for a seamless experience across devices.

Architecture

Component Structure:

- App.js: Main entry point for the React application.
- Dashboard.js: Displays top trending cryptocurrencies.
- CurrencyDetail.js: Shows detailed view with historical chart.
- ChartComponent.js: Uses Chart.js to render historical price data.

State Management:

- React's built-in useState and useEffect for state handling.
- Data fetching and updates managed via API calls in useEffect.

Routing:

- React Router is used for navigation between the dashboard and currency detail pages

Setup Instructions

Prerequisites:

- Node.js and npm installed on your system.

Installation:

1. Clone the repository: ``git clone``
[\[https://github.com/SAKTHIYAK/cryptocurrency.git\]](https://github.com/SAKTHIYAK/cryptocurrency.git)```
2. Navigate to the project folder.
3. Install dependencies: ``npm install``
4. Start the development server: ``npm run de``
5. The project will run in the browser.

Folder Structure

- public/
 - vite.svg
- src/
 - components/
 - Coin.jsx
 - CoinDetail.jsx
 - CoinTrending.jsx
 - HistoryChart.jsx
 - Markets.jsx
 - Navbar.jsx
 - Skeleton.jsx
 - Trending.jsx
 - hooks/

- useAxios.jsx
- icons/
 - icons.jsx
- pages/
 - CryptoDetail.jsx
 - CryptoHome.jsx
- App.jsx
- index.css
- main.jsx
- utils.jsx
- .gitignore
- cryptoupdate.png
- cryptoupdate2.png
- index.html
- package-lock.json
- package.json
- postcss.config.cjs
- tailwind.config.cjs
- vite.config.js
- yarn.lock

Running the Application

To start the application locally, use the following command:

...

```
`npm run dev`
```

...

This will launch the application on **`http://localhost:5173/`**

Component Documentation

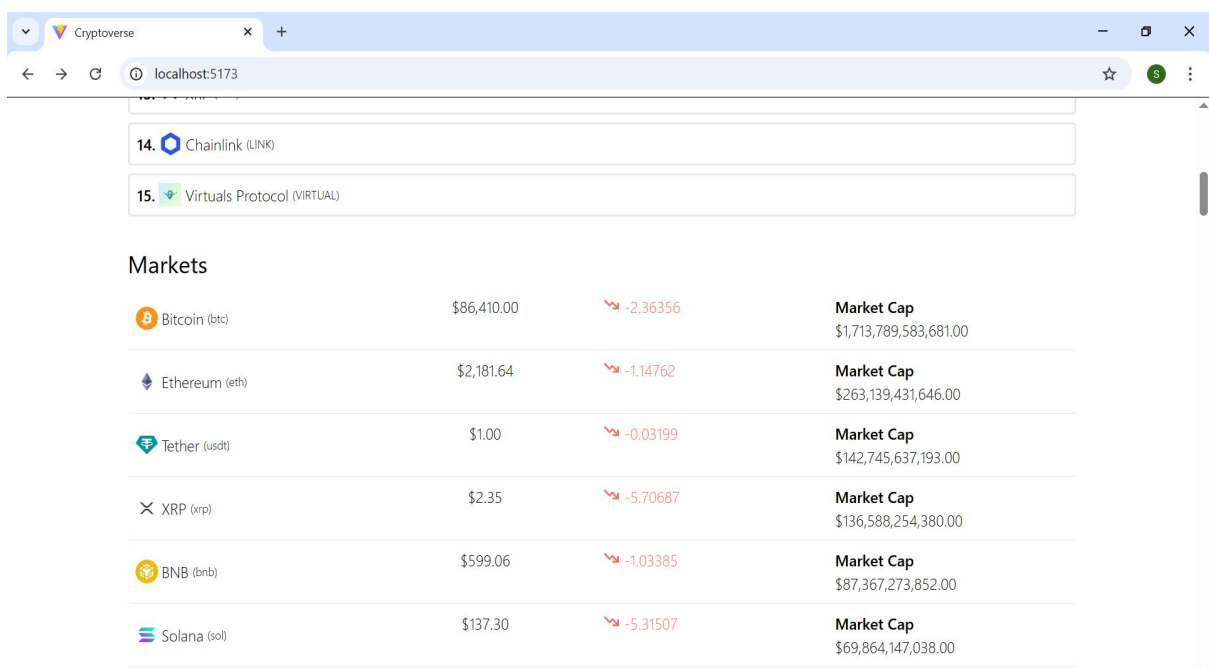
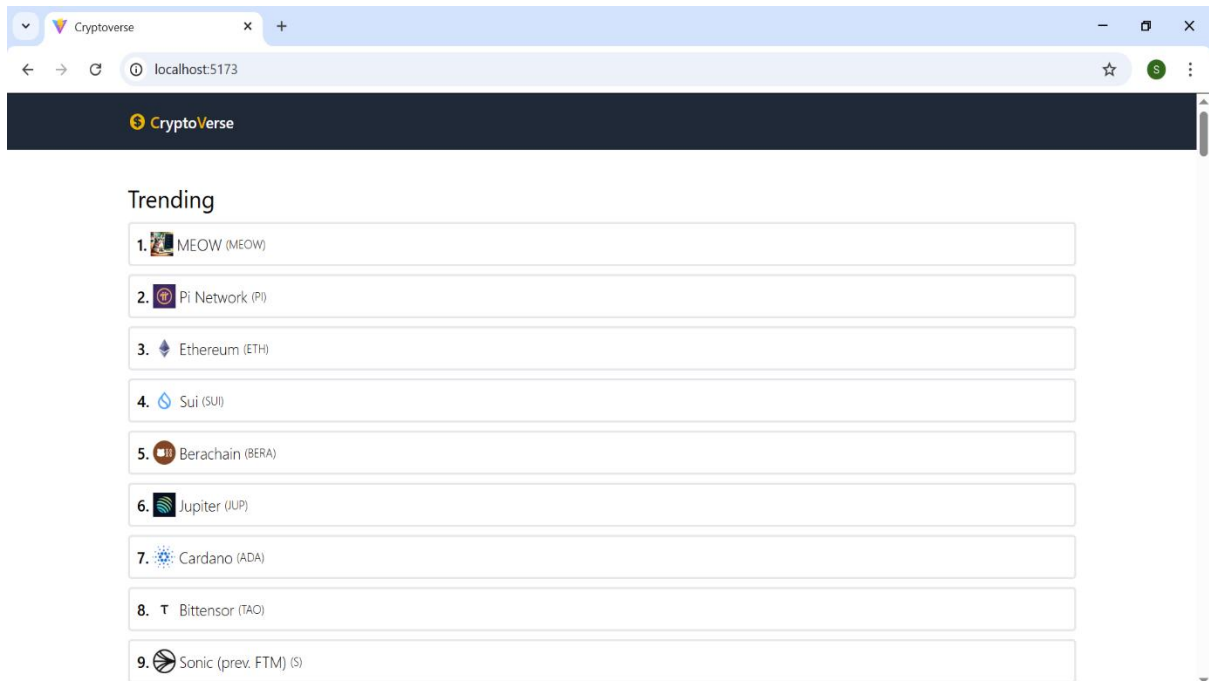
Key Components:

- Dashboard: Fetches and displays the top trending cryptocurrencies.
- CurrencyDetail: Shows detailed price trends and historical data.
- ChartComponent: Uses Chart.js to display a graph of past 30 days' price trends.

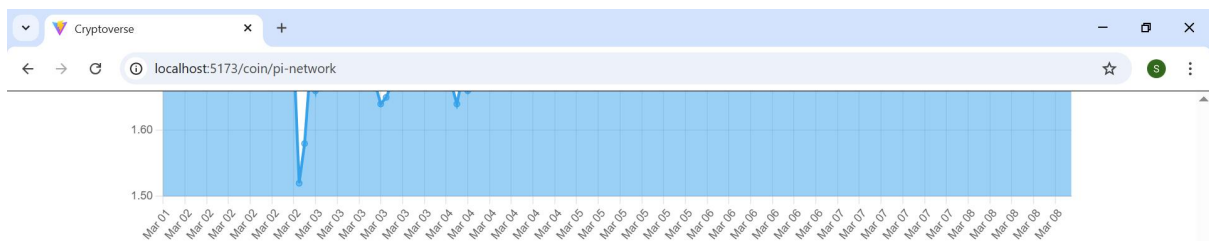
Styling

- Uses CSS modules for component-specific styling.
- Material-UI used for enhancing UI elements.

App Screenshots

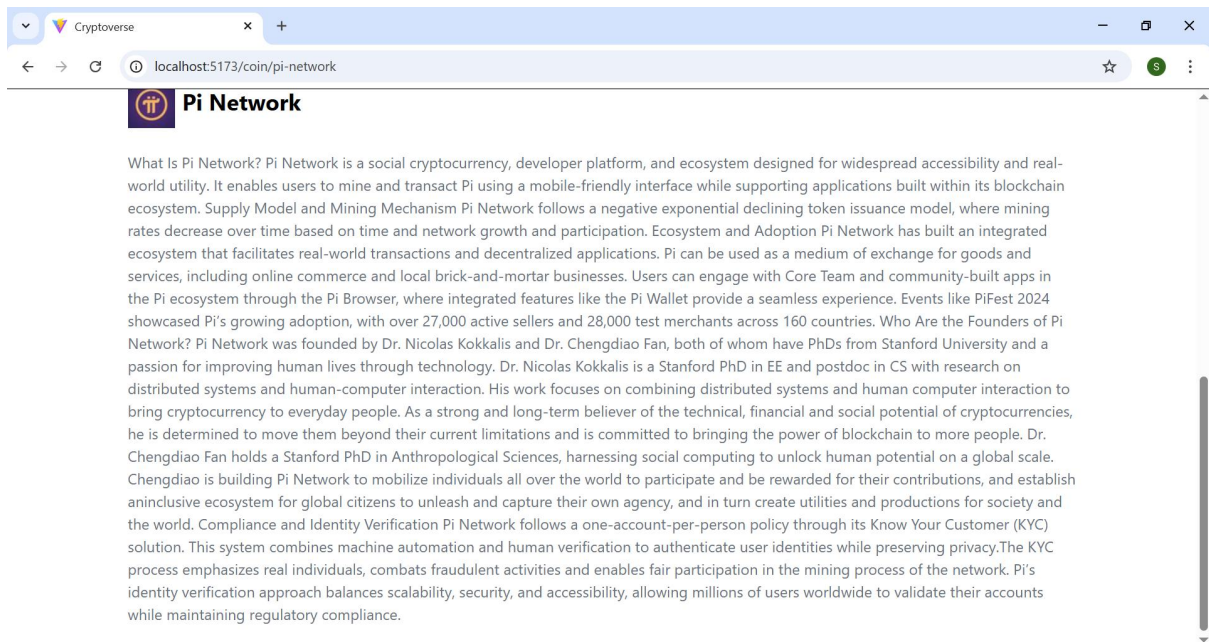






Pi Network

What Is Pi Network? Pi Network is a social cryptocurrency, developer platform, and ecosystem designed for widespread accessibility and real-world utility. It enables users to mine and transact Pi using a mobile-friendly interface while supporting applications built within its blockchain ecosystem. Supply Model and Mining Mechanism Pi Network follows a negative exponential declining token issuance model, where mining rates decrease over time based on time and network growth and participation. Ecosystem and Adoption Pi Network has built an integrated ecosystem that facilitates real-world transactions and decentralized applications. Pi can be used as a medium of exchange for goods and services, including online commerce and local brick-and-mortar businesses. Users can engage with Core Team and community-built apps in the Pi ecosystem through the Pi Browser, where integrated features like the Pi Wallet provide a seamless experience. Events like PiFest 2024 showcased Pi's growing adoption, with over 27,000 active sellers and 28,000 test merchants across 160 countries. Who Are the Founders of Pi Network? Pi Network was founded by Dr. Nicolas Kokkalis and Dr. Chengdiao Fan, both of whom have PhDs from Stanford University and a passion for improving human lives through technology. Dr. Nicolas Kokkalis is a Stanford PhD in EE and postdoc in CS with research on distributed systems and human-computer interaction. His work focuses on combining distributed systems and human computer interaction to bring cryptocurrency to everyday people. As a strong and long-term believer of the technical, financial and social potential of cryptocurrencies, he is determined to move them beyond their current limitations and is committed to bringing the power of blockchain to more people. Dr. Chenadiiao Fan holds a Stanford PhD in Anthropological Sciences, harnessing social computing to unlock human potential on a global scale.



Future Enhancements

- Add more time range options (7 days, 3 months, etc.).
- Implement user authentication for personalized dashboards.
- Enhance UI with animations and improved styling.

Conclusion

The **Cryptocurrency Dashboard** is a powerful and user-friendly tool for tracking real-time cryptocurrency market trends. By integrating React with the CoinGecko API, it provides up-to-date insights into prices, market capitalization, and trading volume. The use of Chart.js enhances data visualization, making it easy for users to analyze historical price trends and identify market movements. With its sleek and responsive design, the dashboard is an essential resource for crypto enthusiasts, traders, and analysts seeking a streamlined and efficient way to monitor the ever-evolving crypto market.