Crypto tracking website challenge

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Context

Cryptocurrencies have surged in popularity, becoming a significant part of investment portfolios and everyday financial discussions. Investors, traders, and financial analysts face constant challenges staying updated with rapidly changing cryptocurrency prices, market capitalization, and trading volumes.

A reliable, well-designed desktop website that tracks real-time cryptocurrency prices and provides clear visualization and analysis is critical for making informed decisions. Imagine you're part of a financial technology startup aiming to offer traders a powerful yet user-friendly tool for monitoring cryptocurrencies.

Your startup's objective is to provide both real-time data visualization and historical price analysis for top cryptocurrencies. The users will rely on your platform daily to make informed trading and investment decisions. Therefore, the website must be responsive, intuitive, and visually appealing, offering an exceptional user experience to ensure your product stands out in a competitive market.

Your challenge, as a team of 4 developers, is to design and build this cryptocurrency tracking desktop website within the given timeframe of **3 weeks**.

Your Task

Requirements:

- Create a responsive desktop website displaying real-time cryptocurrency prices.

- The website must list at least the top 20 cryptocurrencies, showing their current price, 24-hour change, market capitalization, and trading volume.

- Include detailed individual pages for each cryptocurrency with historical price charts (e.g., daily, weekly, monthly views).

- Implement a search and filtering feature allowing users to quickly find specific cryptocurrencies.

- Provide an intuitive, clean, and modern user interface.

- Ensure optimal performance, loading speed, and responsiveness.

Documentation and Resources

To successfully complete this challenge, you may utilize the following resources:

- **APIs:** CoinGecko API (CoinGecko API Documentation) or CoinMarketCap API (CoinMarketCap API Documentation)

- **Visualization Libraries:** Chart.js (Chart.js Documentation), D3.js (D3.js Documentation)

- **CSS Frameworks:** Tailwind CSS (Tailwind Documentation), Bootstrap (Bootstrap Documentation)

- **Frontend Libraries:** ReactJS (React Documentation), VueJS (Vue Documentation)

- **Deployment Options:** Netlify (Netlify Documentation), Vercel (Vercel Documentation)

Project Rules

- **Collaboration:** All team members must collaborate using GitHub. Regular commits are mandatory at each step.

- **Mentors access:** you'll be assigned mentors. You must add them as collaborators to the GitHub repository of your project.

Milestones and Deadlines

To help structure your project, the following milestones must be respected:

1. **Milestone 1 (End of Week 1):** Wireframes and UI/UX design completed.

2. **Milestone 2 (Mid of Week 2):** API Integration and real-time data fetching completed.

3. **Milestone 3 (End of Week 2):** Historical data visualization implemented.

4. **Milestone 4 (Mid of Week 3):** Search, filtering, and responsiveness finalized.

5. **Milestone 5 (End of Week 3):** Final testing, deployment, and presentation.

Tips and Advice

- Begin by clearly defining roles within your team (Frontend Developer, API Integration, UX/UI Designer, Project Manager).

- Prioritize API integration early on to address data fetching and performance bottlenecks.

- Maintain consistent coding standards by establishing guidelines before development starts.

- Utilize version control systems such as GitHub for efficient collaboration.

- Invest time in designing the user interface to provide a seamless experience.

- Regularly test website performance and responsiveness across different desktop browsers.

Good luck and happy coding!