# UI/UX Design Report: Cryptocurrency Tracker

1. Introduction

This report describes the user interface (UI) and user experience (UX) design decisions made for my cryptocurrency tracker project. The project is built using SvelteKit, Svelte, and Shadcn-Svelte components. The main goal was to create a website that is easy to understand and use for tracking cryptocurrency information, taking inspiration from popular platforms like CoinMarketCap.

2. Overall Layout and Structure
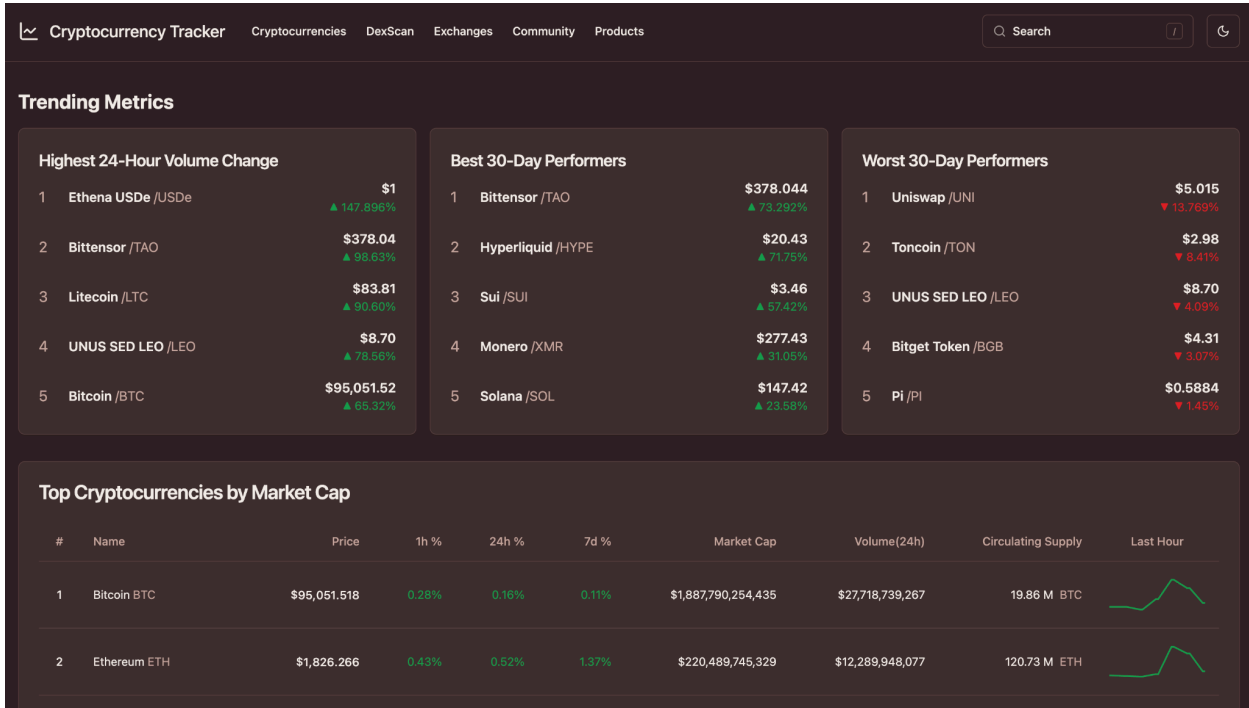
The main page is designed to give users a quick overview of the crypto market.

Header:

The top navigation bar provides clear links to different sections like "Cryptocurrencies", "DexScan", "Exchanges", etc. There is also a search bar for finding specific coins easily.

Trending Metrics:

Right below the header, I placed "Trending Metrics". This includes lists like "Highest 24-Hour Volume Change", "Best 30-Day Performers", and "Worst 30-Day Performers". This section helps users quickly see which coins are moving significantly. The alternative was just showing the main table, but adding trends gives a faster market summary.
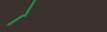
Trending Metrics

Highest 24-Hour Volume Change		
1	Ethena USDe /USDe	$1 ▲ 147.861%
2	Bittensor /TAO	$378.01 ▲ 98.30%
3	Litecoin /LTC	$83.71 ▲ 90.32%
4	UNUS SED LEO /LEO	$8.70 ▲ 78.13%
5	Bitcoin /BTC	$95,050.02 ▲ 69.97%

Best 30-Day Performers		
1	Bittensor /TAO	$378.015 ▲ 73.279%
2	Hyperliquid /HYPE	$20.43 ▲ 71.76%
3	Sui /SUI	$3.46 ▲ 57.41%
4	Monero /XMR	$277.45 ▲ 31.09%
5	Solana /SOL	$147.43 ▲ 23.57%

Worst 30-Day Performers		
1	Uniswap /UNI	$5.009 ▼ 13.864%
2	Toncoin /TON	$2.98 ▼ 8.41%
3	UNUS SED LEO /LEO	$8.70 ▼ 4.04%
4	Bitget Token /BGB	$4.31 ▼ 3.08%
5	Pi /PI	$0.5887 ▼ 2.24%

Main Table:

The largest part of the main page is the "Top Cryptocurrencies by Market Cap" table. This is a standard way to show crypto data and provides detailed information for the most important coins.

Top Cryptocurrencies by Market Cap

#	Name	Price	1h %	24h %	7d %	Market Cap	Volume(24h)	Circulating Supply	Last Hour
1	Bitcoin BTC	$95,037.313	0.27%	0.32%	0.04%	$1,887,508,130,814	$27,568,341,824	19.86 M BTC	
2	Ethereum ETH	$1,826.823	0.49%	0.69%	1.48%	$220,557,038,033	$12,383,254,729	120.73 M ETH	
3	Tether USDt USDT	$1	0.01%	-0.01%	-0.03%	$149,356,189,794	$53,245,942,218	149.36 B USDT	
4	XRP XRP	$2.144	0.26%	-0.69%	-6.77%	$125,456,829,196	$2,544,207,248	58.50 B XRP	
5	BNB BNB	$599.17	0.13%	2.16%	-1.10%	$84,416,923,143	$1,478,957,169	140.89 M BNB	
6	Solana SOL	$147.427	0.33%	1.87%	-0.38%	$76,395,149,056	$2,273,338,986	518.19 M SOL	
7	USDC USDC	$1	0.00%	-0.00%	0.00%	$61,792,265,996	$8,578,822,226	61.79 B USDC	
8	Dogecoin DOGE	$0.172	0.49%	0.66%	-4.08%	$25,584,497,261	$711,478,440	149.14 B DOGE	
9	TRON TRX	$0.249	0.24%	0.96%	0.33%	$23,622,002,773	$530,286,370	94.92 B TRX	

3. Data Presentation and Visual Cues

#	Name	Price	1h %	24h %	7d %	Market Cap	Volume(24h)	Circulating Supply	Last Hour
	Top Cryptocurrencies by Market Cap								
1	Bitcoin BTC	$95,037.313	0.27%	0.32%	0.04%	$1,887,508,130,814	$27,568,341,824	19.86 M BTC	
2	Ethereum ETH	$1,826.823	0.49%	0.69%	1.48%	$220,557,038,033	$12,383,254,729	120.73 M ETH	
3	Tether USDt USDT	$1	0.01%	-0.01%	-0.03%	$149,356,189,794	$53,245,942,218	149.36 B USDT	
4	XRP XRP	$2.144	0.26%	-0.69%	-6.77%	$125,456,829,196	$2,544,207,248	58.50 B XRP	
5	BNB BNB	$599.17	0.13%	2.16%	-1.10%	$84,416,923,143	$1,478,957,169	140.89 M BNB	
6	Solana SOL	$147.427	0.33%	1.87%	-0.38%	$76,395,149,056	$2,273,338,986	518.19 M SOL	
7	USDC USDC	$1	0.00%	-0.00%	0.00%	$61,792,265,996	$8,578,822,226	61.79 B USDC	
8	Dogecoin DOGE	$0.172	0.49%	0.66%	-4.08%	$25,584,497,261	$711,478,440	149.14 B DOGE	
9	TRON TRX	$0.249	0.24%	0.96%	0.33%	$23,622,002,773	$530,286,370	94.92 B TRX	

Presenting data clearly is very important for a tracker application.

Color Coding:

I used green for positive changes (like price increases) and red for negative changes (price decreases), as seen in the percentage columns (1h%, 24h%, 7d%). This is a very common convention in finance and helps users immediately understand the direction of movement without reading the numbers closely.

Mini Charts:

In the main table, the "Last Hour" column shows a small sparkline chart for each cryptocurrency. This gives a quick visual idea of the very recent price trend. An alternative was not having this, but it adds good value directly in the table view. These charts are also animated subtly when data loads.

4. Interactivity and Animation

Small animations and interactive elements make the user experience smoother and more engaging.

Animated Logo:

The chart icon next to the "Cryptocurrency Tracker" title in the top-left has a simple animation to make the header feel more dynamic.

Number Updates:

When prices (anywhere on the website) change, they don't just snap to the new value. I used the `number-flow` library (number-flow.barvian.me) to animate the transition. This makes the updates feel smoother and less jarring. I would have applied it to all number values and not just prices, but having 500 animations run at the same time, seemed to cause the animations to stutter.

Chart Interaction:

 On the individual cryptocurrency page, when the user moves their mouse cursor over the main price chart, the area of the chart to the right of the cursor darkens slightly. This helps the user focus on the specific point in time and the corresponding price data they are hovering over.

5. Theming and Customization

The visual appearance of the site is important for user comfort.

Shadcn-Svelte & TweakCN:

The project uses Shadcn-Svelte for UI components. The theme chosen is "Mocha Mousse" from TweakCN (tweakcn.com), a new open-source tool. TweakCN makes it very easy to try different looks because you can copy the necessary Tailwind CSS variables with one click. This allowed me to quickly apply a consistent and pleasant theme. There are many themes available on TweakCN, making future style changes very fast (less than 10 seconds).
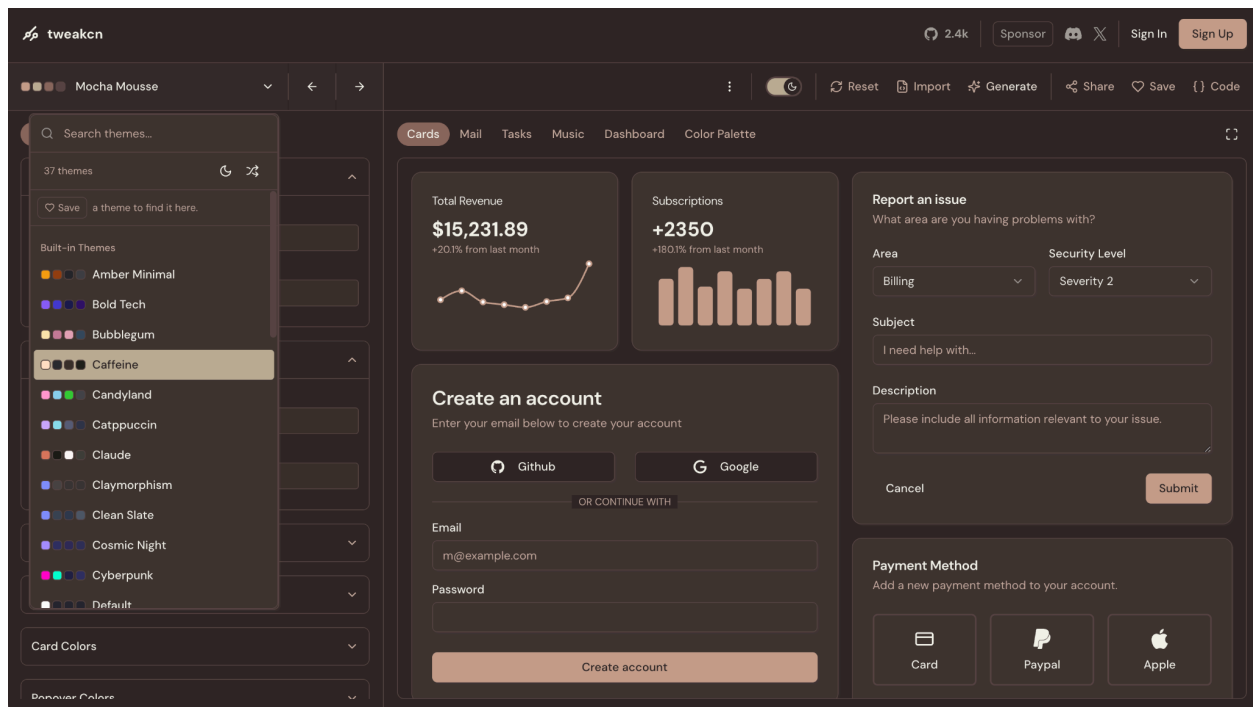
Light/Dark Mode:

Users can choose between a light and dark theme using the toggle button in the top-right corner. The site can also automatically use the user's system preference (light or dark). This is important for accessibility and user comfort in different lighting conditions.
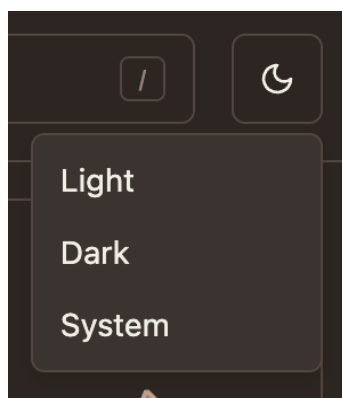
6. Individual Cryptocurrency Page

When a user wants more details, they can click on a coin in the main table.

Detailed View:

This page provides more in-depth information about a single cryptocurrency, including key stats like Market Cap, Volume, Total Supply, Max Supply, and the date it was added.

Main Chart:

The most prominent feature is the large, interactive price chart showing the historical performance of the coin. This allows users to analyze trends over different time periods.

7. Conclusion

The design choices for this cryptocurrency tracker focused on clarity, using familiar patterns (like red/green indicators), and enhancing the experience with subtle animations and useful interactive elements like the chart hover effect. Using Shadcn-Svelte and TweakCN allowed for efficient development and easy, flexible theming, including light/dark mode support. The goal was to create an interface that is both informative and pleasant to use.