Rohan Natraj/rnatra01

Seth Kahn/skahn03

Project Proposal

Title: CryptoTicker

Problem: Hundreds of crypto currencies are emerging every day. The price of a Bitcoin might be $400 today and $5 a week later. CryptoTicker is a simple web application that delivers up-to-date content on crypto currencies in the news, exchange rates on Bitcoins and alternative crypto currencies, and historical data on the price of Bitcoins. The interface is clean and simple, and users receive accurate data from reliable crypto currency sources.

Solution: Our solution is to offer a web application with a simple and unambiguous interface through which users may navigate and explore news, exchange rates, and historical trends on Bitcoins and other crypto currencies. Our proposed web application, CryptoTicker, will deliver:

1. News on various crypto currencies.
2. Exchange rates for Bitcoins and alternative crypto currencies
3. Historical data on the value of Bitcoins over time (with user input for custom date ranges)

Features: CryptoTicker will have the following features and use the following web technologies:

1. **HTML/CSS** for styling and basic content.
2. **Javascript & jQuery** for DOM modifications and various functions
3. **AJAX** requests to (4) crypto currency **APIs** and JSON parsing to handle API response data
4. **Github** for collaborative programming
5. **Boostrap front-end framework** to create **Mobile/Desktop interfaces**
6. **Node.js** for **screen scraping** news articles
7. **MongoDB** to store news articles
8. Reporting with **charts & graphs** of Bitcoin prices over time
9. **Localstorage** of API data to reduce number of requests made to API

Data used: The data being used will be crypto currency price and volume data as well as exchange rate data. To create a page containing news articles about crypto currencies we will be screen scraping for news articles.

APIs:

- http://api.coindesk.com/v1/bpi/historical/close.json
- http://api.coindesk.com/v1/bpi/currentprice.json
- http://www.cryptocoincharts.info/v2/api/listCoins

- https://blockchain.info/ticker?cors=true

URL used for screen scraping news articles:

- http://www.cryptoarticles.com

Mockups: