# Pineapple Team Project Proposal

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**Summary**

The application we propose to create is a website that allows a user to track and observe trends in BTC prices in various markets. The website will show updated BTC prices in comparable markets as well as showing a history of price changes in each market through a graphical/visual aid such as a line graph.

**Selection Reasoning**

Recently, Bitcoin has been a big hit all around the world. Bitcoin(BTC) is a cryptocurrency and now can be used as a way of payment in lots of places. Nowadays, more and more people are becoming interested in the trading of BTC.

Due to the popularity of the bitcoin marketing, people are seeking for more useful tools to help them make decisions. Caused by certain reasons, the price in different BTC market will be slightly different. Secondly, the transfer fee may be two thousandths. So that makes it possible for people to make profits by buying low and selling high. To fulfill this, people need to have a real-time comparison of the price in different BTC market. Therefore, we came up with the idea of making a website which aims to fulfill people’s demands to have the comparison of the price and also provide some supporting functions for the decision making like previous data searching and filtering.

This idea seems surmountable within our given timeframe and quite possibly lucrative. Arbitrage may be too hard to implement, but we will at least give the user as much information as possible to make an informed decision. As such, we have come to the conclusion of making a visual aid that helps users understand markets.

**Functional Requirements**

The assessed requirements for this project’s functionality regarded a consideration of processes, people, a Graphical User Interface, and a database, which together forms the core of the project and its efficacy.

General

* Use of LNMP (Linux, Nginx, MySQL, and Python) Stack to host website
* Use of VPS or similar to run stack
* Web interface
* Secured by user login
* Ability to integrate with Venmo / Paypal / payment processors
* Create and manage payment groups
* Use of a Site Admin to make sure groups are not exploited
* Frontend to educate visitors on how/why to use Pitchfork

Timeliness

* Our application needs to get the real time price of BTC from BTC market API

Graphical User Interface

* The user interface has to be easy to use in all regards and for any user
* All interactions with the interface have to be visible and clear to the user
* The visual and functional design of our website have to flow without interruption
* Style and branding has to be consistent throughout our product to maintain brand image continuity and recognition
* All elements will be responsive to given users

Database

* Our application needs to connected to the databases which store the previous data of the BTC marketing
* Our application needs to withdraw required information from the database correctly

API

* Our application needs an API in order to share data to others may need this

Search

* Our application needs to construct a strong enough search tool in order to find what we want

**Non-Functional Requirements**

General

* We will use VPS to maintain uptime
* It must have dedicated admins to moderate content
* It must have an easy to use interface
* The website can adapt to different dpi such as mobile and tablet.

Hardware:

* The application has to be hosted on a web server
* Internet connectivity has to be a requirement to be able to access the application online
* Some sort of device to visit our website is required to use our service

**Anticipated Technologies**

* HTML5 & CSS
* Nginx to hosting website
* BackEnd: Django good for api and get info from api
* FrontEnd: Probably AngularJS
* API from different BTC market