**Brief Document for Crypto Currency Project**

This document is snapshot of the Project. It briefly details various activities available in Web portal. It contains three Parts.

1. Users- Shows various available activities to users
2. Admin- Shows various available activities to Admin
3. Flowchart- consolidation of users’ activities.

Documentation is prepared keeping in view developing a robust web solution for users trading in Crypto currencies but at the same time keeping it as **most user friendly available solution**.

**PART – 1**

**USERS**

**Home Page:**

**Activities on Home Page:**

* User will Sign up by providing details such as name, country, phone number and email. A verifying OTP and email will be send to user as part of verification process. The SMS service will be through International SMS Service gateway.

As Sign up is completed, a Customer ID is given to user.

* User Can see the current prices of the crypto currencies in US Dollars – **Price Block**
  + - Bitcoin ( BTC)
    - Lite Coin (LTC)
    - Ethereum (ETH)
    - Ripple (XRP)
    - Bitcoin Cash (BTH)
* User can also see available trade of crypto currencies by other Registered users for buying or selling on **Trade Block**
* **CHART Block-** Crypto Currency Vis-a Viz US Dollar
* **Current USD Block:** USD price compared to other currencies or **conversion calculator**
* Login / Sign up Button + Form
* How to use documents
* Live Support
* News Feeds about Crypto Currencies or Announcements.
* Face book.
* Twitter tweets by company
* Privacy Policy
* Trade Guidelines

**Activities on Dashboard Page:**

* **Wallet:**  Wallet is his account and he can always view amount available in his account. Wallet also provides account statement of various transactions.
* **Current Rate:** on very left hand side he can view Real Time Crypto currency Rates. This will help him in taking decisions on buying / selling
* **Transfers:**  By using his wallet he can transfer amount to other users . The other user should also be registered on our platform.
* **Withdrawal:**  Hot Withdrawals to linked Bank Account. This is depended upon Countries regulation.
* **Deposit:**  Deposit to linked wallet in form of crypto currency only.
* **Trade:**  All currencies current value will be listed. He will fill the amount of currencies he wants to transact. Then he selects either sell or purchase.
  + - A reflection of same will be posted in wallet.
    - Reflection of same on **Trade Block** forother users.
* As soon as the Trade happens, He will receive a notification message on his mobile and email.
* The Transaction will be reflected in his wallet.
* The commission of Trade by use of our portal and any other charges to customer will be blocked and Admin can withdraw the same to their account.
* Notification Bell: User will get notifications from admin and from system for his transactions activities

**PART –II ADMIN PANEL**

**Admin**

**Users:**

* Can see number of users and trading activities.
* Can block any users for unauthorized activities
* Can send personalized email to user(s)
* Admin can find the total users, inactive users, blocked users and incomplete registered users.
* Admin can see the amount in wallet and amount in trade by users.

**Admin Wallet:**

* Admin can see the total amount earned as commission by selecting the period.
* Admin can withdraw from wallet.

**PART –III-Flow Charts:**

**USER:**

**SIGN UP:**

**USER AFTER LOGIN ON DASHBOARD**

**Wallet:** Shows Amount available + Commission Paid+ Account Statement of Trade and Transfers.

**Trade:**

**Technical Selections:**

For completion of above webs solution , following external resources are required. These are:

1. Data capture for Price Block
2. Data Capture for Trade Block
3. Data Capture for USD Exchange Rates vis-à-vis other currencies.
4. Wallet – System

**Price Block:**

Price Block provides live pricing data, historical data, volume data, tick data or block explorer data from multiple exchanges and block chains. The very purpose of this block is to convey to customer the most **Most Authenticated pricing on Real Time.**

We have following options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | Option | Pros | Cons | Rating out of 5 |
| 1 | https://www.cryptocompare.com/api | Integrated with over 90 exchanges, 1800 coins and have over 22,000 trading pairs listed | Not Popular. Referral from exchanges. Free but may close sudden in future. Real Time Price Calculation may be problem. | 2 |
| 2. | https://www.coinapi.io/ | All CoinAPI data is standardized. Market symbol details and asset codes are double-checked by real humans to ensure **maximum quality**.  Websocket is provided by them.  All Exchanges | $599  Price/m | 5 |
| 3 | <https://www.cryptonator.com/api> | Prices are updated every 30 seconds, covering 300+ cryptocurrencies across 62 exchanges. | Compared to above, it has less exchanges. | 3 |
| 4. | https://www.coinigy.com/bitcoin-api/ | one codebase for 50+ exchanges.  Inbuilt Websocket | Compared to above, it has less exchanges. | 2 |
| 5. | https://docs.gdax.com/#get-an-order | 65 + exchanges. Websocket in built  Can be integrated with coinbase | Dealing in only   | **Code** | **Description** | | --- | --- | | BTC | Bitcoin | | ETH | Ether | | LTC | Litecoin | | 5 |
| 6. | https://bittrex.com/home/api | Real Time Data . USD vs Crypto | API are in Testing Phase . | 5 |
| 7 | https://wavesplatform.com | One of the best analysis chart . Websocket integration is bit typical | Less charges. Alo provide peer to peer wallet. Charges are levied on Transactions | 5 |
| 8 | CCTX | The ccxt library currently supports the following 99 cryptocurrency exchange markets and trading APIs: | Open source. | 5 |
| 9 | https://bitcoincharts.com/ | Fast and reliable | Limited to Bit coin only | 3 |
| 10 | https://monax.io/ | The monax platform is an open platform for developers and devops to build, ship, and run blockchain-based applications for business ecosystems  Monax sells legally compliant smart contract-based SDKs to accelerate your time to market with sophisticated ecosystem applications. | Paid service | 5 |

We are opinion to integrate 6th option . An Example is here : <https://bittrex.com/Home/Markets>

**Trade Block:**

It may be created from Scratch. The system will block the commission on request of buy or sale. As the Transaction is done then said amount is payable by the client.

However, we are looking to integrate in wallet that auto deducts commission of Admin and Payment Gateway.

**Data Capture for USD Exchange Rates vis-à-vis other currencies.**

We are opinion to integrate 6th option . An Example is here : <https://bittrex.com/Home/Markets>

**Wallet – System**

Even though Peer to peer crypto wallets is available, we are opinion to build a customized wallet for the client. This will get auto deduction of commission to Admin wallet.

Further, we are dealing with more than one currencies, we are opinion of building it from scratch. . <https://monax.io/> is one of the good solutionsOther APIs and their analysis:

1. **Bittrex.com**

**Advantage:** We have rated Bittrex as 5 in above table.

* They give four types of APIs.
* Read Info - view the balances, orders, and other details of the account
* Withdraw - Allow programatically withdraw any currency to an address we provide. This can be used to quick arbitrage exchanges or move money into cold storage after thresholds.
* Trade Limit - This allows the API key to place LIMIT buy and sell orders
* Trade Market - This allows the API key to place MARKET buy and sell orders
* Trading: "Real "crypto trading (actual crypto purchase)
* Anonymous Accounts: yes - no ID required for basic accounts
* Cryptos: DASH, XRP, ETH, ETC, LTC, MAID, REP, LSK, FTC, SC, BURST, CLAM, DOGE, BTS, ARK, GUP + over 200 more
* Payment Options: BTC + supported cryptocurrencies, BITCNY, USDT
* Min. Deposit: no min. stated
* Max. Withdrawal: 1BTC for basic accounts, 50 000$ for Enhanced verified accounts
* Order Types: limit buy, limit sell, stop orders
* Security Measures: majority of user funds in cold storage; 2-factor-authentication
* Mobile App: no in-house app
* Support: e-mail support; ticket support
* Supported Countries: Worldwide, excluding USA

**Disadvantages:**

* All trades have a 0.25% commission.
* Bittrex will provide paper copies of electronic correspondence on request for a fee. The fee is $10 plus $1 per page for shipping and handling to an address within the United States. Shipping outside of the United States may incur additional fees
* Demo Mode: no
* No margin trading
* the liquidity is sometimes way below average, sometimes you can get execution after waiting for over 10 minutes
* Trading fees are solid 0.25% without any reductions for the users. which is definitely a big minus.
* Worries of lack of accountability and full transparency.
* Bittrex Says- Bittrex is a crypto-currency exchange.  Our mission is to provide you the best security and service possible when you are trading crypto-currencies.  We will make sure your funds are safe and that if User A wants to trade X to User B for Y, you both get your respective X and Y.  That is our responsibility; nothing less, nothing more. We are here to make sure that you get the coins that you traded for.  We make no guarantees on the value or claims of that coin.  That is your responsibility.
* We are currently only accepting new account requests from our corporate customers and select invitees. We are excited to have so many new users who want to join the Bittrex community. To those that want to join our community, we will keep you posted on when we open up registration more broadly.

1. **Binance.com**

**Advantages:**

* Trading: "Real "crypto trading (actual crypto purchase)
* Anonymous Accounts: yes
* Cryptos: Bitcoin and more than 80 altcoins.
* Payment Options: crypto currencies
* Min. Deposit: no
* Max. Withdrawal: 2 BTC (unverified); 50 BTC (verified).
* Fees: Trading fee: 0.1% (0.05% if paid with BNB); Withdrawal fees: depend on the currency.
* Order Types: limit order, market order, stop loss order.
* Demo Mode: no
* Security Measures: 2FA connection history platform custom built
* Mobile App: yes - iOS & Android
* Support: ticket system (fastest), telegram group, reddit channel, Twitter
* Supported Countries: available worldwide but in Mainland China.
* Trading on the platform requires a deposit, but given the large selection of supported altcoins, you can opt for a cheap coin to test out the features.
* Binance does not restrict any provider (not even popular temporary email services), making it extremely easy to register anonymously. There is an option to upgrade, but a basic, unverified account will be enough for casual users.
* Only deposits are free, trading and withdrawals come at a cost. The trading fee is currently 0.1%, regardless of the coin, but it can be halved if paid with BNB (Binance coin, an altcoin backed by the platform itself).

**Disadvantages:**

* API : <https://www.binance.com/restapipub.html> says unavailable 404 :(
* Users Remarks about binance -
  + buggy platform.
  + no support for fiat.
  + slow customer support

Since, API is unable, We can’t test it!!!

**3. Bitfinex**

**Advantages:**

* Trading: "Real "crypto trading (actual crypto purchase)
* Anonymous Accounts: yes; Photo ID only for fiat deposits
* Cryptos: BTC and + 30 Altcoins
* Payment Options: USD (currently paused) BTC, ETH, ETC, XMR, LTC, DASH, ZEC
* Min. Deposit: 20 USD
* Max. Withdrawal: not limited
* Fees: Trading fees: 0.0 to 0.2% depending on trading volume
* Leverage: 3.3x
* Order Types: limit orders, market orders, stop limit orders, trailing stop orders, take profit orders; Additional settings: post-only, hidden order, iceberg order, fill or kill, good till cancel, immedate or cancel, OCO (one cancels other)
* Demo Mode: no
* Security Measures: 99.5 % of client funds in cold storage; two-factor authentication; e-mail encryption (OpenPGP); monitor withdrawals by IP, lock withdrawals for 24h when a new IP address is used
* Mobile App: yes - iOS & Android
* Support: upgradeable! e-mail support only
* Supported Countries: Worldwide, excluding USA
* Fees: https://www.bitfinex.com/fees

| EXECUTED IN THE LAST 30 DAYS (USD EQUIVALENT) | MAKER FEES | TAKER FEES |  |
| --- | --- | --- | --- |
| $0.00 or more traded | 0.100% | 0.200% |  |
| $500,000.00 or more traded | 0.080% | 0.200% |  |
| $1,000,000.00 or more traded | 0.060% | 0.200% |  |
| $2,500,000.00 or more traded | 0.040% | 0.200% |  |
| $5,000,000.00 or more traded | 0.020% | 0.200% |  |
| $7,500,000.00 or more traded | 0.000% | 0.200% |  |
| $10,000,000.00 or more traded | 0.000% | 0.180% |  |
| $15,000,000.00 or more traded | 0.000% | 0.160% |  |
| $20,000,000.00 or more traded | 0.000% | 0.140% |  |
| $25,000,000.00 or more traded | 0.000% | 0.120% |  |
| $30,000,000.00 or more traded | 0.000% | 0.100% |  |

* **Maker** fees are paid when you add liquidity to our order book by placing a limit order under the ticker price for buy and above the ticker price for sell.  
  **Taker** fees are paid when you remove liquidity from our order book by placing any order that is executed against an order of the order book.
* Note: If you place a hidden order, you will always pay the taker fee. If you place a limit order that hits a hidden order, you will always pay the maker fee.
* unlimited withdrawal
* anonymity possible
* high trading volume
* in-house mobile app
* many payment options

**Disadvantages:**

* The average daily trading volume of the platform is USD 70 Million, which is relatively low compared to the other Bitcoin trading sites.
* For China, Europe and the US it’s no problem to trade on Bitfinex. However, in the US, margin trading on Bitfinex has been disabled for unknown reasons.
* In August 2016, over USD 70 Million worth of coins were stolen from the site. This is the second largest loss of Bitcoin in the history of cryptocurrency.
* Bitfinex has paused fiat deposits so users cannot use USD for their funds. Currently, only cryptos are supported, so you must wait for further announcements in the official posts. They also had problems with withdrawals, as there were big transmission delays in April. These issues drove the BTC price up disproportionately to other platforms, as Bitfinex users fled into Bitcoin.
* The Bitfinex APIs are designed to allow access to all of the features of the Bitfinex platform. However, the site has lost his reputation and gaining it after breach of security.

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| We are opinion to integrate 6th option . An Example is here : <https://bittrex.com/Home/Markets>  Wallet option:   1. Scratch 2. From above said wallets. 3. Trader to Admin and Admin to Buyer |