



My Crypto Portfolio

The best Alexa skill for all crypto related queries and personal portfolio details.

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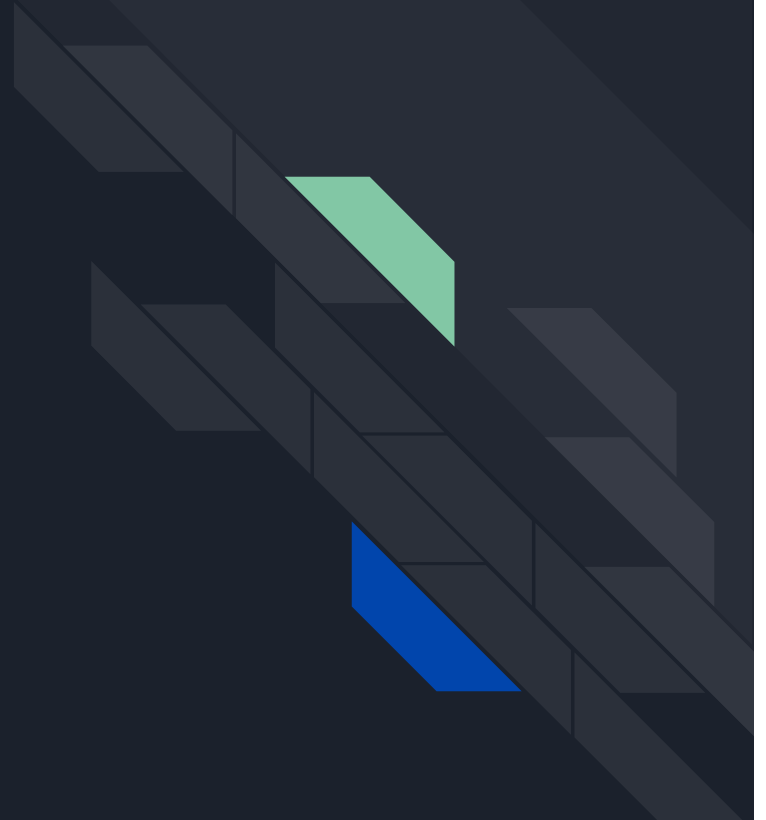
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Commands

Account independent commands:

- Invocation: start my crypto portfolio
- Fetch price: what is the price of bitcoin

You can replace bitcoin with any of the [supported crypto](https://mycryptoportfolio.netlify.com/support.html) (<https://mycryptoportfolio.netlify.com/support.html>)

- Fetch market cap: what is bitcoin's current market cap

You can replace bitcoin with any of the [supported crypto](https://mycryptoportfolio.netlify.com/support.html) (<https://mycryptoportfolio.netlify.com/support.html>)

- Get predictions: predict the price of bitcoin on 26th october

You can get price prediction for 4 cryptos (btc, eth, ltc, doge) upto 30 days from the current date.

- Fetch News: get daily news briefing on crypto by asking 'What's new'



Commands (continued)

Account dependent commands:

To run these commands you need to register your email along with your crypto addresses to our database [here](https://mycryptoportfolio.netlify.com/index.html)(<https://mycryptoportfolio.netlify.com/index.html>)

- Unconfirmed transactions: How many unconfirmed transactions do i have?
- Portfolio value: how many bitcoins am i holding?

You can replace bitcoin with (litecoin, ether, dogecoin).

- What is the net worth of my portfolio : returns the total worth in USDs

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Data Flow

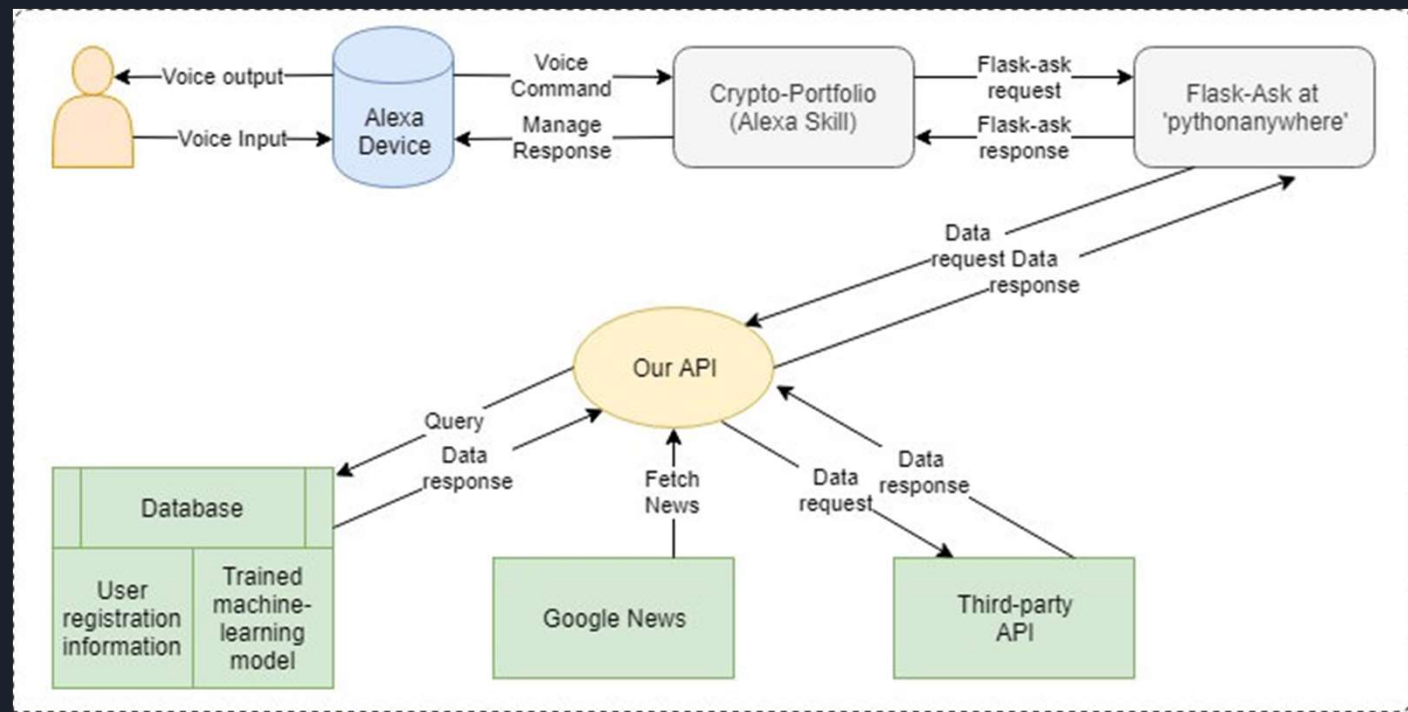


Fig.1 - This image depicts the flow of data in the developed Alexa skill

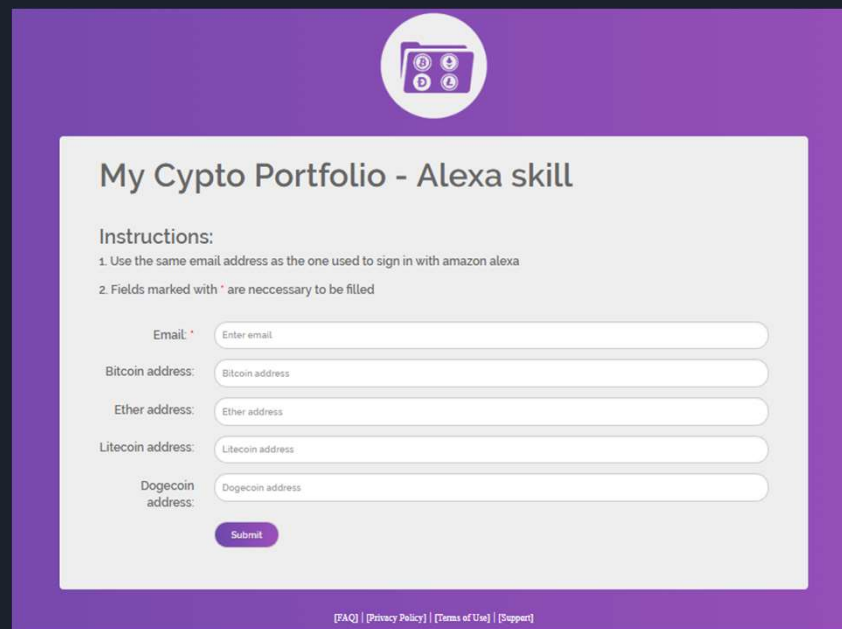


- Our skill's endpoint is created in python using flask_ask and flask library. It is hosted at 'pythonanywhere'.
- We have created a completely new API from scratch dedicated to My Crypto Portfolio skill, this API has several features and it's docs can be viewed here. <https://github.com/TimeTraveller-San/alexa-skill-API/blob/master/README.md>
- We maintain a database for our API for which our skill store user's email address after they've given the required permissions. The skill is still usable even if the users decide not to share their email with us but the functionalities are limited.

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Registration Model

User registers his email along with the public keys of four of his cryptocurrency wallets through a form which has been displayed below:



The image shows a registration form titled "My Crypto Portfolio - Alexa skill". At the top center is a circular icon containing four cryptocurrency symbols: Bitcoin, Ethereum, Dogecoin, and Litecoin. Below the title, there are instructions: "1. Use the same email address as the one used to sign in with amazon alexa" and "2. Fields marked with * are necessary to be filled". The form contains five input fields: "Email *" with placeholder text "Enter email", "Bitcoin address:" with placeholder text "Bitcoin address", "Ether address:" with placeholder text "Ether address", "Litecoin address:" with placeholder text "Litecoin address", and "Dogecoin address:" with placeholder text "Dogecoin address". A purple "Submit" button is located at the bottom of the form. At the very bottom of the page, there are links for "[FAQ]", "[Privacy Policy]", "[Terms of Use]", and "[Support]".

Fig.2 - It depicts the form which the users shall be required to fill.



On clicking submit, the email ID along with the public keys (addresses) is stored into our database and are later used by the skill to fetch account details such as:

1. Portfolio Value:

The core of blockchain technology is a public ledger. This ledger can be viewed by anyone. Given the public key, we use bitcoin's API to fetch the amount of coins held in the address that is stored in our database.

This public API can be viewed at:

<https://www.blockchain.com/btc/address/1BPyXemrs6Rb2kQdJynnxzxEVv5M2qLfa2>

Similarly, other crypto details can be fetched.

Bitcoin Address

Addresses are identifiers which you use to send bitcoins to another person.

Summary

Address [1BPyXemrs6Rb2kQdJynnxzxEVv5M2qLfa2](#)

Hash 160 [720998b9f7a172b38e35e95966bd0bd6f9905af1](#)

Transactions


No. Transactions 1

Total Received **\$ 100.47**

Final Balance **\$ 100.47**

Request Payment

Donation Button



Transactions (Oldest First)

Filter

e183fd8fb7124da23ef68326ec18ec5576d6eef19e34ffd86edd671d59d9286a

2018-10-24 13:04:10

1NG3G7TwDma4vn6cNr9J4URqCHPMvK8Gq7
19CqrSE6SbNvceRiCXreRDIVjEKYr9ZzQM
1Gs7fYtDXTEk5LoTAHsN7C49v1pypg1JUL
19sacJxRjoyhMn7a99CsNWiwK1qTL9qj97
14hXRmMBPiNz3LtuqWg2fDFpc4o5mku1ft
1H6LzRxdbG1QhEXZLALhvQ15M36AKfR2N3

➔

1BPyXemrs6Rb2kQdJynnxzxEVv5M2qLfa2

\$ 100.47

Unconfirmed Transaction!

\$ 100.47

Fig.3 - It depicts the use of the cryptocurrency address provided by the user.



2. Unconfirmed Transactions:

Unconfirmed transaction means that the transaction has not been included in a block and thus has not been completed. This too can be fetched from the bitcoin and other crypto APIs, provided, we have their public keys.

This public API can be viewed here:

<https://www.blockchain.com/btc/address/1BPyXemrs6Rb2kQdJynnxzxEVv5M2qLfa2>

Bitcoin Address

Addresses are identifiers which you use to send bitcoins to another person.

Summary	
Address	<u>1BPyXemrs6Rb2kQdJynnxxzEVv5M2qLfa2</u>
Hash 160	720998b9f7a172b38e35e95966bd0bd6f9905af1

Transactions	
No. Transactions	1
Total Received	\$ 100.47
Final Balance	\$ 100.47

Request Payment

Donation Button



Transactions (Oldest First)

Filter▼

e183fd8fb7124da23ef68326ec18ec5576d6eef19e34fd86edd671d59d9286a

2018-10-24 13:04:10

1NG3G7TwDma4vn6cNr9J4URqCHPMvK8Gq7
19CqrSE6SbNvceRICXreRDIVJEKYr9ZzQM
1Gs7tYtDXTEk5LoTAHsN7C49v1pypg1JUL
19sacJxRjoyhMn7a99CsNWiwK1qTL9cj97
14hXRmMBPiNz3LtuqWg2fDFpc4o5mku1ft
1H6LzRxdbG1QhEXZLALhvQ15M36AKfR2N3



1BPyXemrs6Rb2kQdJynnxxzEVv5M2qLfa2

\$ 100.47

Unconfirmed Transaction!

\$ 100.47

Fig.4 - It depicts the use of the cryptocurrency address to check unconfirmed transaction.



Our API also performs other features like:

1. Fetch News:

Top news articles are fetched from the Google News crypto section. This is done using web-scraping with 'bs4' python module.

(<https://news.google.com/topics/CAAqBwgKMljI9gowp9zVAg?hl=en-IN&gl=IN&ceid=IN:en>)

1. Price Prediction:

This is done using our Machine Learning algorithm which uses the data set regularly updated at <https://coinmetrics.io/data-downloads/>.

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Machine Learning Model

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Description of Prediction Model: A recent news item went as follows: “Apple buys machine learning firm Perceptio Inc., a startup, in an attempt to bring advanced image-classifying artificial intelligence to smartphones by reducing data overhead which is typically required of conventional methods.” Another recent development was that MIT researchers were working on object recognition through flexible machine learning. Machine learning is starting to reshape how we live, and it’s time we understood what it is and why it matters.

In our Alexa skill, we have applied Machine Learning in predicting the price of cryptocurrencies for the user in order to assist him to manage his crypto-currency transactions. The model learns the pattern followed by the prices of the respective cryptocurrency from its beginning to date and makes predictions for the next 30 days for the user.

However, these are simply prices predicted by an algorithm and may vary with the actual prices. We, on our part, have tried our level best to provide the user with prices predicted as close as possible to the real prices.



Target Audience

The generation of millenials is a strong community who support the use of cryptocurrencies and this is just the right platform for simplifying their daily management and use of cryptocurrencies.

My Crypto Portfolio offers all the needed features that a crypto savvy person might need in order to stay updated with the market.

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Other Features

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API endpoint: <https://www.coindesk.com/api/>

We use the coindesk free API according it's TOC we are allowed to use this API with our skill until we start monetizing it which is when we need to buy the API.

We can perform various functions with this such as:

1. Fetch price of 50+ cryptocurrencies:

We can fetch price of all cryptos listed on our website support (<https://mycryptoportfolio.netlify.com/support.html>)

Our skill not only reads the price but also present the net gain/loss in the price.

1. Fetch net market cap of 50+ cryptocurrencies:

We can fetch current market cap of all cryptos listed on our website support (<https://mycryptoportfolio.netlify.com/support.html>)



What Makes Us Better?

- We conducted a brief comparative study on other cryptocurrency wallets handling user accounts and displaying information related to them.
- The comparison revealed that unlike any other such wallets on the Alexa Skill Store, My Crypto Portfolio doesn't require the user to update his wallet with Alexa after he/she performs any action using his crypto-account.
- My Crypto Portfolio uses the address provided by the user and thus automatically keeps the updated knowledge about the user's wallet.
- There is no effort which is required from the user's side to update knowledge about his wallet on his/her Alexa device.

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My Crypto Portfolio developer team : Vaibhav Kumar, Siddhant Bhambri & Utsav Dahiya.

Thank you!

