Crypto recommendation service  
End-point specification  
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**Overview**

Crypto recommendation service is an application providing statistical data (from last month) of various cryprocurrencies. It exposes an HTTP API with several endpoints, each returning different statistical information about supported cryptocurrencies. All endpoints listen to HTTP GET requests. The endpoints are public with no need of authentication or authorization.

**List of available endpoints**

1. **Basic statistical information about one currency**

Summary:

Endpoint returns statistical info about one cryptocurrency. Statistical info includes maximum and minimum price from the whole month and first/last proce of the month.

Path:

*/get\_statistics\_for\_currency*

Parameters:

* *currency* (required attribute; consists of 3 uppercase characters defining requested currency)

Returns:

Json object with currency name and four statistical values:

* *currencyName* (text – 3 uppercase characters defining returned currency)
* *maxPrize* (double – maximum prize of the currency from whole month)
* *minPrize* (double – minimum prize of the currency from whole month)
* *oldestPrize* (double – price of the requested currency at the beginning of the month)
* *newestPrize* (double – price of the requested currency at the end the month)

Error return codes:

* 404 – if the requested currency is not found
* 400 – if the parameter is in the incorrect format or is missing
* 500 – other internal error

1. **Currency with highest normalized range**

Summary:

Endpoint returns a currency with highest normalized range for a specific day calculated as (maxPrice-minPrice)/minPrice.

Path:

*/* *get\_highest\_normalized\_range*

Parameters:

* *day* (required attribute; format ‘yyyy-m-d‘)

Returns:

Json object with currency name and its normalized range:

* *currencyName* (text – 3 uppercase characters defining returned currency)
* *normalizedRange* (double – normalized range from the specific day)

Error return codes:

* 404 – if there are no currencies available or there is no data for specific day
* 400 – if the parameter is in the incorrect format or is missing
* 500 – other internal error

1. **Normalized ranges of all currencies**

Summary:

Endpoint returns all currencies ordered by their normalized range (descending order). Normalized ranges are calculated from the whole month by the following formula: (maxPrice-minPrice)/minPrice.

Path:

*/* *get\_all\_normalized\_ranges\_sorted*

Parameters: none

Returns:

Json object with the list of currencies, each witch following items:

* *currencyName* (text – 3 uppercase characters defining returned currency)
* *normalizedRange* (double – normalized range from the whole month)

Error return codes:

* 500 – other internal error