

Package ‘coinmarketcapr’

March 25, 2020

Type Package

Title Get 'Cryptocurrencies' Market Cap Prices from Coin Market Cap

Version 0.3.2

Description Extract and monitor price and market cap of 'Cryptocurrencies' from 'Coin Market Cap' <<https://coinmarketcap.com/api/>>.

URL <http://github.com/amrrs/coinmarketcapr>

License MIT + file LICENSE

LazyData true

Imports jsonlite, ggplot2, data.table, curl, cli, crayon

Suggests testthat, knitr, rmarkdown, ggthemes, dplyr

RoxygenNote 7.1.0

Encoding UTF-8

BugReports <https://github.com/amrrs/coinmarketcapr/issues>

NeedsCompilation no

Author AbdulMajedRaja RS [aut, cre],
Sebastian Gatscha [aut, ctb]

Maintainer AbdulMajedRaja RS <amrrs.data@gmail.com>

Repository CRAN

Date/Publication 2020-03-25 18:20:09 UTC

R topics documented:

coinmarketcapr	2
get_api_info	2
get_crypto_listings	3
get_crypto_map	4
get_crypto_marketpairs	5
get_crypto_meta	6
get_crypto_ohlc	7
get_crypto_quotes	8

get_exchange_map	9
get_exchange_meta	10
get_global_marketcap	11
get_price_conversion	12
get_valid_currencies	13
plot_top_currencies	13
setup	14

Index	15
--------------	-----------

coinmarketcap	<i>coinmarketcap: Cryptocurrency Market Cap Prices from CoinMarketCap</i>
---------------	---

Description

Extract and monitor price and market cap of 'Cryptocurrencies' from 'CoinMarketCap' <https://coinmarketcap.com/api/> that lists many leading cryptocurrencies along with their price, 24h trade volume, market cap and much more in USD and other currencies.

See Also

Useful links:

- <https://coinmarketcap.com/api/>
- <https://github.com/amrrs/coinmarketcap>
- Report bugs at <https://github.com/amrrs/coinmarketcap/issues>

get_api_info	<i>Get API-Key Info</i>
--------------	-------------------------

Description

Returns API key details and usage stats. This endpoint can be used to programmatically monitor your key usage compared to the rate limit and daily/monthly credit limits available to your API plan. You may use the Developer Portal's account dashboard as an alternative to this endpoint.

Usage

```
get_api_info()
```

Value

A dataframe with all API key infos

References

[API documentation](#)

Examples

```
## Not run:  
get_api_info()  
  
## End(Not run)
```

get_crypto_listings *Get latest/historical market data*

Description

Get a paginated list of all active cryptocurrencies with latest market data. The default "market_cap" sort returns cryptocurrency in order of CoinMarketCap's market cap rank (as outlined in our methodology) but you may configure this call to order by another market ranking field. Use the "convert" option to return market values in multiple fiat and cryptocurrency conversions in the same call.

Usage

```
get_crypto_listings(currency = "USD", latest = TRUE, ...)
```

Arguments

currency	currency code - Default is 'USD'
latest	If 'TRUE' (default), only the latest data is retrieved, otherwise historical data is returned. (NOTE: Historic Data require higher API rights)
...	Further arguments can be passed to historical data. Further information can be found in the API documentation

Value

A dataframe of top Cryptocurrencies with current or historic market data

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_map\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_ohlcv\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_listings('EUR')
get_crypto_listings('GBP')
get_crypto_listings('GBP', latest=F, start=1,
                    date=Sys.Date()-20, limit=10, sort="price", sort_dir="asc")

## End(Not run)
```

get_crypto_map

Get active cryptocurrencies

Description

Get all active cryptocurrencies supported by the platform including a unique id

Usage

```
get_crypto_map(...)
```

Arguments

... Further arguments passed to the request. Further information can be found in the [API documentation](#)

Value

A dataframe with all active cryptocurrencies supported by the platform including a unique id for each cryptocurrency.

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_ohlc\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_map()
get_crypto_map(symbol="BTC")
get_crypto_map(symbol=c("BTC", "ETH"))
get_crypto_map(listing_status = "active", start = 1, limit = 10)
get_crypto_map(listing_status = "inactive", start = 1, limit = 10)

## End(Not run)
```

`get_crypto_marketpairs`*List all active market pairs*

Description

Get a list of all active market pairs that CoinMarketCap tracks for a given cryptocurrency or fiat currency

Usage

```
get_crypto_marketpairs(  
  currency = "USD",  
  symbol = NULL,  
  id = NULL,  
  slug = NULL,  
  start = NULL,  
  limit = NULL  
)
```

Arguments

currency	currency code - Default is 'USD'
symbol	One or more cryptocurrency symbols. Example: c("BTC","ETH").
id	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: c(1,2)
slug	Alternatively pass a vector of exchange slugs. Example: c("binance","cryptsy")
start	Optionally offset the start (1-based index) of the paginated list of items to return. - Default is 1
limit	Optionally specify the number of results to return. Use this parameter and the "start" parameter to determine your own pagination size.

Value

A dataframe with all active market pairs

Note

A single cryptocurrency "id", "slug", or "symbol" is required.

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_map\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_ohlcv\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_marketpairs("EUR")
get_crypto_marketpairs("EUR", slug = "bitcoin")
get_crypto_marketpairs("EUR", symbol = "LTC")
get_crypto_marketpairs("EUR", symbol = "BTC", start = 10, limit = 20)

## End(Not run)
```

get_crypto_meta	<i>Get static metadata</i>
-----------------	----------------------------

Description

Get all static metadata available for one or more cryptocurrencies

Usage

```
get_crypto_meta(symbol = NULL, id = NULL, slug = NULL)
```

Arguments

symbol	One or more cryptocurrency symbols. Example: c("BTC","ETH").
id	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: c(1,2)
slug	Alternatively pass a vector of exchange slugs. Example: c("binance","cryptsy")

Value

A dataframe with metadata of Cryptocurrencies

Note

At least one "id" or "slug" or "symbol" is required for this request.

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_map\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_ohlcv\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_meta()
get_crypto_meta(symbol = c("BTC", "ETH"))
get_crypto_meta(id = c(1,2,3,4))
get_crypto_meta(slug = c("bitcoin", "ethereum"))

## End(Not run)
```

get_crypto_ohlcv *List latest/historical OHLCV values*

Description

Return the latest/historical OHLCV (Open, High, Low, Close, Volume) market values for one or more cryptocurrencies for the current UTC day. Since the current UTC day is still active these values are updated frequently. You can find the final calculated OHLCV values for the last completed UTC day along with all historic days using `/cryptocurrency/ohlcv/historical`.

Usage

```
get_crypto_ohlcv(
  currency = "USD",
  latest = TRUE,
  symbol = NULL,
  id = NULL,
  ...
)
```

Arguments

currency	currency code - Default is 'USD'
latest	If 'TRUE' (default), only the latest data is retrieved, otherwise historical data is returned.
symbol	One or more cryptocurrency symbols. Example: <code>c("BTC","ETH")</code> .
id	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: <code>c(1,2)</code>
...	Further arguments passed to the request. Further information can be found in the API documentation

Value

A dataframe with OHLCV values

Note

One of "id" or "symbol" is required for this request.

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_map\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_ohlcv("EUR")
get_crypto_ohlcv("EUR", latest = F)
get_crypto_ohlcv("EUR", latest = F, time_period = "hourly",
                 time_start=Sys.Date()-180, count=5, interval="monthly")

## End(Not run)
```

get_crypto_quotes	<i>Get market quotes</i>
-------------------	--------------------------

Description

Get the latest/historical market quotes for 1 or more cryptocurrencies

Usage

```
get_crypto_quotes(
  currency = "USD",
  symbol = NULL,
  slug = NULL,
  id = NULL,
  latest = TRUE,
  ...
)
```

Arguments

currency	currency code - Default is 'USD'
symbol	One or more cryptocurrency symbols. Example: c("BTC","ETH").
slug	Alternatively pass a vector of exchange slugs. Example: c("binance","cryptsy")
id	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: c(1,2)
latest	If 'TRUE' (default), only the latest data is retrieved, otherwise historical data is returned. (NOTE: Historic Data require higher API rights)
...	Further arguments can be passed to historical data. Further information can be found in the API documentation

Value

A dataframe with the latest market quote for 1 or more cryptocurrencies

Note

At least one "id" or "slug" or "symbol" is required for this request.

References

[API documentation](#)

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_map\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_ohlcv\(\)](#), [get_marketcap_ticker_all\(\)](#), [get_valid_currencies\(\)](#)

Examples

```
## Not run:
get_crypto_quotes()
get_crypto_quotes(symbol="ETH")
get_crypto_quotes(symbol=c("ETH", "BTC"))
get_crypto_quotes(slug=c("litecoin", "dogecoin"))
get_crypto_quotes("EUR", id=c(3,4))
get_crypto_quotes(latest = FALSE, symbol = c("BTC", "ETH"),
                  time_start = Sys.Date()-180, time_end=Sys.Date(), count = 10,
                  interval = "30m")

## End(Not run)
```

get_exchange_map	<i>Get all cryptocurrency exchanges</i>
------------------	---

Description

Returns a paginated list of all cryptocurrency exchanges by CoinMarketCap ID. We recommend using this convenience endpoint to lookup and utilize our unique exchange id across all endpoints as typical exchange identifiers may change over time. As a convenience you may pass a comma-separated list of exchanges by slug to filter this list to only those you require.

Usage

```
get_exchange_map(...)
```

Arguments

... Further arguments passed to the request. Further information can be found in the [API documentation](#)

Value

A dataframe with exchange values

References

[API documentation](#)

See Also

Other Exchanges: [get_exchange_meta\(\)](#)

Examples

```
## Not run:
get_exchange_map()
get_exchange_map(listing_status = "inactive",
                 slug = "binance", start = 5, limit = 100)

## End(Not run)
```

get_exchange_meta	<i>Get all cryptocurrency exchanges metadata</i>
-------------------	--

Description

Returns all static metadata for one or more exchanges. This information includes details like launch date, logo, official website URL, social links, and market fee documentation URL.

Usage

```
get_exchange_meta(id = NULL, slug = NULL)
```

Arguments

id	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: <code>c(1,2)</code>
slug	Alternatively pass a vector of exchange slugs. Example: <code>c("binance","cryptsy")</code>

Value

A dataframe with exchange metadata values

References

[API documentation](#)

See Also

Other Exchanges: [get_exchange_map\(\)](#)

Examples

```
## Not run:  
get_exchange_meta(id = 5)  
get_exchange_meta(slug = c("binance", "cryptsy"))  
  
## End(Not run)
```

get_global_marketcap *Extract Global Market Cap of Cryptocurrency Market*

Description

Extract Global Market Cap of Cryptocurrency Market

Usage

```
get_global_marketcap(currency = "USD", latest = TRUE, ...)
```

Arguments

currency	currency code - Default is 'USD'
latest	If 'TRUE' (default), only the latest data is retrieved, otherwise historical data is returned. (NOTE: Historic Data require higher API rights)
...	Further arguments can be passed to historical data. Further information can be found in the API documentation

Value

A dataframe with global market cap of Cryptocurrencies

Examples

```
## Not run:  
get_global_marketcap('AUD')  
get_global_marketcap('EUR')  
get_global_marketcap(latest = FALSE, count = 10, interval = "yearly",  
                      time_start = Sys.Date()-180, time_end = Sys.Date())  
  
## End(Not run)
```

get_price_conversion *Price Conversion*

Description

Convert an amount of one cryptocurrency or fiat currency into one or more different currencies utilizing the latest market rate for each currency. You may optionally pass a historical timestamp as time to convert values based on historical rates (as your API plan supports).

Usage

```
get_price_conversion(amount = NULL, id, symbol, time, convert, convert_id)
```

Arguments

amount	An amount of currency to convert. Example: 10.43
id	The CoinMarketCap currency ID of the base cryptocurrency or fiat to convert from. If id and symbol are both missing or NULL, 'BTC' is set as default symbol.
symbol	Alternatively the currency symbol of the base cryptocurrency or fiat to convert from. One id or symbol is required.
time	Optional timestamp to reference historical pricing during conversion. If not passed, the current time will be used. If passed, we'll reference the closest historic values available for this conversion.
convert	Pass up to 120 comma-separated fiat or cryptocurrency symbols to convert the source amount to. Default is 'USD'.
convert_id	Optionally calculate market quotes by CoinMarketCap ID instead of symbol. This option is identical to convert outside of ID format. Ex: convert_id=1,2781 would replace convert=BTC,USD in your query. This parameter cannot be used when convert is used.

Details

Cache / Update frequency: Every 60 seconds for the latest cryptocurrency and fiat currency rates.
 Plan credit use: 1 call credit per call and 1 call credit per convert option beyond the first. CMC equivalent pages: Our cryptocurrency conversion page at [converter](#).

Value

A dataframe with price conversion information

References

[API documentation](#)

Examples

```
## Not run:
get_price_conversion(1)
get_price_conversion(amount = 1, symbol = "BTC", convert = c("EUR", "LTC", "USD"))
get_price_conversion(amount = 1, id=1, time = Sys.Date()-100)

## End(Not run)
```

get_valid_currencies *Get Valid Currencies*

Description

Get Valid Currencies

Usage

```
get_valid_currencies()
```

Value

A character vector of valid currencies supported by coinmarketcap API

See Also

Other Cryptocurrencies: [get_crypto_listings\(\)](#), [get_crypto_map\(\)](#), [get_crypto_marketpairs\(\)](#), [get_crypto_meta\(\)](#), [get_crypto_ohlc\(\)](#), [get_crypto_quotes\(\)](#), [get_marketcap_ticker_all\(\)](#)

Examples

```
get_valid_currencies()
```

plot_top_currencies *Plot The Price of the Largest Market Cap Cryptocurrencies*

Description

Plot The Price of the Largest Market Cap Cryptocurrencies

Usage

```
plot_top_currencies(currency = "USD", k = 5, bar_color = "grey")
```

Arguments

currency	currency code (default is 'USD')
k	the number of top cryptocurrencies to plot (default is 5)
bar_color	a valid color name or hexadecimal color code (default is 'grey')

Value

A ggplot of top Cryptocurrencies based on their rank (Market Cap)

Examples

```
## Not run:
plot_top_currencies('EUR')
plot_top_currencies('GBP')

## End(Not run)
```

 setup

Setup

Description

Specifies API Key and the base URL for session

Usage

```
setup(api_key = NULL, sandbox = FALSE)

get_setup()

reset_setup(api_key = TRUE, sandbox = TRUE)
```

Arguments

api_key	Your Coinmarketcap API key.
sandbox	Sets the base URL for the API. If set to TRUE, the sandbox-API is called. The default is FALSE.

Examples

```
setup("XXXXXXXXXXXX")
get_setup()
```

Index

coinmarketcap, [2](#)

get_api_info, [2](#)

get_crypto_listings, [3](#), [4](#), [6](#), [8](#), [9](#), [13](#)

get_crypto_map, [3](#), [4](#), [6](#), [8](#), [9](#), [13](#)

get_crypto_marketpairs, [3](#), [4](#), [5](#), [6](#), [8](#), [9](#), [13](#)

get_crypto_meta, [3](#), [4](#), [6](#), [6](#), [8](#), [9](#), [13](#)

get_crypto_ohlcv, [3](#), [4](#), [6](#), [7](#), [9](#), [13](#)

get_crypto_quotes, [3](#), [4](#), [6](#), [8](#), [8](#), [13](#)

get_exchange_map, [9](#), [10](#)

get_exchange_meta, [10](#), [10](#)

get_global_marketcap, [11](#)

get_marketcap_ticker_all, [3](#), [4](#), [6](#), [8](#), [9](#), [13](#)

get_price_conversion, [12](#)

get_setup (setup), [14](#)

get_valid_currencies, [3](#), [4](#), [6](#), [8](#), [9](#), [13](#)

plot_top_currencies, [13](#)

reset_setup (setup), [14](#)

setup, [14](#)