Package 'coinmarketcapr'

October 12, 2022

Type Package

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

Version 0.4

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

URL https://github.com/amrrs/coinmarketcapr

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

Suggests testthat, knitr

RoxygenNote 7.1.1

Encoding UTF-8

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

NeedsCompilation no

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R topics documented:

`coinmarketcapr` *coinmarketcapr: Cryptocurrency Market Cap Prices from CoinMarketCap*

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/coinmarketcapr
- Report bugs at https://github.com/amrrs/coinmarketcapr/issues

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`get_api_info` *Get API-Key Info*

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_ohlcv()`, `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 *Get static metdata*

Description

Get all static metdata 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: c("BTC","ETH").
`id`	Alternatively pass one or more CoinMarketCap cryptocurrency IDs. Example: c(1,2)
`...`	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 *Get market quotes*

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 *Get all cryptocurrency exchanges*

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` *Get all cryptocurrency exchanges metadata*

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: c(1,2)
`slug`	Alternatively pass a vector of exchange slugs. Example: c("binance","cryptsy")

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 lastest 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_ohlcv()`, `get_crypto_quotes()`, `get_marketcap_ticker_all()`

Examples

```
get_valid_currencies()
```

`plot_top_currencies` *Plot The Price of the Largest Market Cap Cryptocurrencies (API Key required)*

Description

Plot The Price of the Largest Market Cap Cryptocurrencies (API Key required)

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("xXXXXxxxXXXxx")
get_setup()
```

Index