Package 'crypto2'

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Title Download Crypto Currency Data from 'CoinMarketCap' without 'API'

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URL https://github.com/sstoeckl/crypto2

Description Retrieves crypto currency information and historical prices as well as information on the exchanges they are listed on. Historical data contains daily open, high, low and close values for all crypto currencies. All data is scraped from <https://coinmarketcap.com> via their 'web-api'.

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Depends R (>= 4.0.0)

Imports dplyr, tibble, tidyr, purrr, progress, stats, lubridate, jsonlite, cli

Encoding UTF-8

RoxygenNote 7.1.1

Suggests spelling

Language en-US

NeedsCompilation no

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R topics documented:

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crypto_history	*Get historic crypto currency market data*

Description

Scrape the crypto currency historic market tables from 'CoinMarketCap' https://coinmarketcap.com and display the results in a dataframe/tibble. This can be used to conduct analysis on the crypto financial markets or to attempt to predict future market movements or trends.

Usage

```
crypto_history(
  coin_list = NULL,
  convert = "USD",
  limit = NULL,
  start_date = NULL,
  end_date = NULL,
  sleep = NULL
)
```

Arguments

coin_list	string if NULL retrieve all currently existing coins (`crypto_list()`), or provide list of crypto currencies in the `crypto_list()` format (e.g. current and/or dead coins since 2015)
convert	(default: USD) to one or more of available fiat or precious metals prices (`fiat_list()`). If more than one are selected please separate by comma (e.g. "USD,BTC")
limit	integer Return the top n records, default is all tokens
start_date	string Start date to retrieve data from, format 'yyyymmdd'
end_date	string End date to retrieve data from, format 'yyyymmdd', if not provided, today will be assumed
sleep	integer Seconds to sleep for between API requests

Value

Crypto currency historic OHLC market data in a dataframe and additional information via attribute "info":

timestamp	Timestamp of entry in database
slug	Coin url slug
id	Coin market cap unique id
name	Coin name
symbol	Coin symbol

ref_cur	Reference currency
open	Market open
high	Market high
low	Market low
close	Market close
volume	Volume 24 hours
time_open	Timestamp of open
time_close	Timestamp of close
time_high	Timestamp of high
time_low	Timestamp of low

This is the main function of the crypto package. If you want to retrieve ALL active coins then do not pass an argument to `crypto_history()`, or pass the coin name.

Examples

```
## Not run:

# Retrieving market history for ALL crypto currencies
all_coins <- crypto_history(limit = 1)

# Retrieving market history since 2020 for ALL crypto currencies
all_coins <- crypto_history(start_date = '20200101',limit=10)

# Retrieve 2015 history for all 2015 crypto currencies
coin_list_2015 <- crypto_list(only_active=TRUE) %>%
             dplyr::filter(first_historical_data<="2015-12-31",
             last_historical_data>="2015-01-01")
coins_2015 <- crypto_history(coin_list = coin_list_2015,
start_date = "20150101", end_date="20151231", limit=20)


## End(Not run)
```

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crypto_info	*Retrieves info (urls, logo, description, tags, platform, date_added, notice, status) on CMC for given id or slug*

Description

This code uses the web api. It retrieves data for all active, delisted and untracked coins! It does not require an 'API' key.

Usage

```
crypto_info(coin_list = NULL, limit = NULL)
```

Arguments

`coin_list`	string if NULL retrieve all currently active coins (`crypto_list()`), or provide list of cryptocurrencies in the `crypto_list()` format (e.g. current and/or dead coins since 2015)
`limit`	integer Return the top n records, default is all tokens

Value

List of (active and historically existing) cryptocurrencies in a tibble:

`id`	CMC id (unique identifier)
`name`	Coin name
`symbol`	Coin symbol (not-unique)
`slug`	Coin URL slug (unique)
`category`	Coin category: "token" or "coin"
`description`	Coin description according to CMC
`logo`	CMC url of CC logo
`subreddit`	Name of subreddit community
`notice`	Markdown formatted notices from CMC
`date_added`	Date CC was added to the CMC database
`twitter_username`	
	Username of CCs twitter account
`is_hidden`	TBD
`date_launched`	Date CC was launched
`self_reported_circulating_supply`	
	Self reported circulating supply
`self reported tags`	
	Self_reported_tags
`status`	timestamp and other status messages
`tags`	Tibble of tags and tag categories
`url`	Tibble of various resource urls. Gives website, technical_doc (whitepaper), source_code, message_board, chat, announcement, reddit, twitter, (block) explorer urls
`Platform`	Metadata about the parent coin if available. Gives id, name, symbol, slug, and token address according to CMC

Examples

```
## Not run:
# return info for bitcoin
coin_info <- crypto_info(limit=3)


## End(Not run)
```

---

crypto_list	*Retrieves name, CMC id, symbol, slug, rank, an activity flag as well as activity dates on CMC for all coins*

Description

This code uses the web api. It retrieves data for all historic and all active coins and does not require an 'API' key.

This code uses the web api. It retrieves data for all available fiat currencies and does not require an API key.

Usage

```
crypto_list(only_active = TRUE, add_untracked = FALSE)

fiat_list(include_metals = FALSE)
```

Arguments

only_active	Shall the code only retrieve active coins (TRUE=default) or include inactive coins (FALSE)
add_untracked	Shall the code additionally retrieve untracked coins (FALSE=default)
include_metals	(default FALSE) Shall the code also retrieve available precious metals?

Value

List of (active and historically existing) cryptocurrencies in a tibble:

id	CMC id (unique identifier)
name	Coin name
symbol	Coin symbol (not-unique)
slug	Coin URL slug (unique)
rank	Current rank on CMC (if still active)
is_active	Flag showing whether coin is active (1), inactive(0) or untracked (-1)
first_historical_data	
	First time listed on CMC
last_historical_data	
	Last time listed on CMC, *today's date* if still listed

List of (active and historically existing) cryptocurrencies in a tibble:

id	CMC id (unique identifier)
symbol	Coin symbol (not-unique)
name	Coin name
sign	Fiat currency sign
code	Precious metals code

Examples

```
## Not run:
# return all coins
active_list <- crypto_list(only_active=TRUE)
all_but_untracked_list <- crypto_list(only_active=FALSE)
full_list <- crypto_list(only_active=FALSE,add_untracked=TRUE)

# return all coins active in 2015
coin_list_2015 <- active_list %>%
dplyr::filter(first_historical_data<="2015-12-31",
              last_historical_data>="2015-01-01")


## End(Not run)

## Not run:
# return all fiat currencies available on CMC as well as precious metals
fiat_list <- fiat_list(include_metals=TRUE)

## End(Not run)
```

---

exchange_info	*Retrieves info (urls,logo,description,tags,platform,date_added,notice,status) on CMC for given exchange slug*

Description

This code uses the web api. It retrieves data for all active, delisted and untracked exchanges! It does not require an 'API' key.

Usage

```
exchange_info(exchange_list = NULL, limit = NULL)
```

Arguments

exchange_list   string if NULL retrieve all currently active exchanges (exchange_list()), or provide list of exchanges in the exchange_list() format (e.g. current and/or delisted)

limit   integer Return the top n records, default is all exchanges

Value

List of (active and historically existing) exchanges in a tibble:

id   CMC exchange id (unique identifier)

name   Exchange name

slug	Exchange URL slug (unique)
description	Exchange description according to CMC
notice	Exchange notice (markdown formatted) according to CMC
logo	CMC url of CC logo
type	Type of exchange
date_launched	Launch date of this exchange
is_hidden	TBD
is_redistributable	
	TBD
maker_fee	Exchanges maker fee
taker_fee	Exchanges maker fee
spot_volume_usd	
	Current volume in USD according to CMC
spot_volume_last_updated	
	Latest update of spot volume
status	timestamp and other status messages
tags	Tibble of tags and tag categories
url	Tibble of various resource urls. Gives website, blog, fee, twitter.
countries	Tibble of countries the exchange is active in
fiat	Tibble of fiat currencies the exchange trades in

Examples

```
## Not run:
# return info for the first three exchanges
exchange_info <- exchange_info(limit=3)

## End(Not run)
```

---

exchange_list	*Retrieves name, CMC id, symbol, slug, rank, an activity flag as well as activity dates on CMC for all coins*

Description

This code uses the web api. It retrieves data for all historic and all active coins and does not require an 'API' key.

Usage

```
exchange_list(only_active = TRUE, add_untracked = FALSE)
```

Arguments

`only_active`	Shall the code only retrieve active coins (TRUE=default) or include inactive coins (FALSE)
`add_untracked`	Shall the code additionally retrieve untracked coins (FALSE=default)

Value

List of (active and historically existing) cryptocurrencies in a tibble:

`id`	CMC exchange id (unique identifier)
`name`	Exchange name
`slug`	Exchange URL slug (unique)
`is_active`	Flag showing whether exchange is active (1), inactive(0) or untracked (-1)
`first_historical_data`	
	First time listed on CMC
`last_historical_data`	
	Last time listed on CMC, *today's date* if still listed

Examples

```
## Not run:
# return all coins
ex_active_list <- exchange_list(only_active=TRUE)
ex_all_but_untracked_list <- exchange_list(only_active=FALSE)
ex_full_list <- exchange_list(only_active=FALSE,add_untracked=TRUE)


## End(Not run)
```

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