

Package ‘shroomDK’

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Type Package

Title Accessing the Flipside Crypto ShroomDK REST API

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Author Carlos Mercado

Maintainer Carlos Mercado <carlos.mercado@flipsidecrypto.com>

Description Programmatic access to Flipside Crypto data via the REST API: <<https://sdk.flipsidecrypto.xyz/shroomdk>>. As simple as `auto_paginate_query()` but with core functions as needed for troubleshooting.

Imports jsonlite, httr

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auto_paginate_query *Auto Paginate Queries*

Description

Grabs up to maxrows in a query by going through each page 100k rows at a time.

Usage

```
auto_paginate_query(query, api_key, maxrows = 1e+06)
```

Arguments

query	The SQL query to pass to ShroomDK
api_key	ShroomDK API key.
maxrows	Max rows allowed in ShroomDK, 1M at time of writing.

Value

data frame of up to 1M rows, see ?clean_query for more details on column classes.

Examples

```
## Not run:  
pull_data <- auto_paginate_query("  
SELECT * FROM ETHEREUM.CORE.FACT_TRANSACTIONS LIMIT 10000",  
api_key = readLines("api_key.txt"))  
  
## End(Not run)
```

clean_query *Clean Query*

Description

converts query response to data frame while attempting to coerce classes intelligently.

Usage

```
clean_query(request, try_simplify = TRUE)
```

Arguments

request	The request output from get_query_from_token()
try_simplify	because requests can return JSON and may not have the same length across values, they may not be data frame compliant (all columns having the same number of rows). A key example would be TX_JSON in EVM_FACT_TRANSACTION tables which include 50+ extra details from transaction logs. But other examples like NULLs TO_ADDRESS can have similar issues. Default TRUE.

Value

A data frame. If 'try_simplify' is FALSE OR if 'try_simplify' TRUE fails: the data frame is comprised of lists, where each column must be coerced to a desired class (e.g., with 'as.numeric()').

Examples

```
## Not run:
query = create_query_token("SELECT * FROM ETHEREUM.CORE.FACT_TRANSACTIONS LIMIT 10000", api_key)
request = get_query_from_token(query$token, api_key, 1, 10000)
clean_query(request, try_simplify = FALSE)

## End(Not run)
```

create_query_token *Create Query Token*

Description

Uses Flipside ShroomDK to create a Query Token to access Flipside Crypto data. The query token is cached up to ttl minutes allowing for pagination and multiple requests before expending more daily request uses.

Usage

```
create_query_token(query, api_key, ttl = 10, cache = TRUE)
```

Arguments

query	Flipside Crypto Snowflake SQL compatible query as a string.
api_key	Flipside Crypto ShroomDK API Key
ttl	time (in minutes) to keep query in cache.
cache	Use cached results; set as FALSE to re-execute.

Value

list of 'token' and 'cached' use 'token' in 'get_query_from_token()'

Examples

```
## Not run:
create_query_token(
  query = "SELECT * FROM ethereum.core.fact_transactions LIMIT 1",
  api_key = readLines("api_key.txt"),
  ttl = 15,
  cache = TRUE)

## End(Not run)
```

get_query_from_token *Get Query From Token*

Description

Uses Flipside ShroomDK to access a Query Token. Query tokens are cached up to 'ttl' minutes for each 'query'. This function is for pagination and multiple requests while . Note: To reduce payload it returns a list of outputs (separating column names from rows).

Usage

```
get_query_from_token(query_token, api_key, page_number = 1, page_size = 1e+05)
```

Arguments

query_token	token from 'create_query_token()'
api_key	Flipside Crypto ShroomDK API Key
page_number	Query tokens are cached and 100k rows max. Get up to 1M rows by going through pages.
page_size	Default 100,000. Paginate via page_number.

Value

returns a request of length 8: 'results', 'columnLabels', 'columnTypes', 'startedAt', 'endedAt', 'pageNumber', 'pageSize', 'status'

Examples

```
## Not run:
query = create_query_token("SELECT * FROM ETHEREUM.CORE.FACT_TRANSACTIONS LIMIT 10000", api_key)
get_query_from_token(query$token, api_key, 1, 10000)

## End(Not run)
```

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