Package ‘soql’

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soql-package

Helps Make Socrata Open Data API Calls

Description

Used to construct the URLs and parameters of 'Socrata Open Data API' <https://dev.socrata.com> calls, using the API's 'SoQL' parameter format. Has method-chained and sensical syntax. Plays well with pipes.

Details

To create a SoQL URL, or just parameters for one, start with `soql()`. Then chain the result into other functions, such as `soql_where()` or `soql_order()`. When you're done, use `as.character()` to retrieve the finished URL, for use with any networking package.

Author(s)

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References

Documentation for the SODA API

Examples

```r
if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_where("height > 30") %>%
    soql_limit(20) %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_where(soql_chain, "height > 30")
  soql_chain <- soql_limit(20)
  my_url <- as.character(soql_chain)
}
```
Create a soql object

Description

This is the constructor for soql objects. It will most often be called with no parameters, and be used at the start of a chain of functions. It is necessary to use this function before any others in the soql package.

Usage

soql(query = "")

Arguments

query An optional string containing an already-formed URL. This URL is converted into a soql object.

Value

Returns a soql object.

Examples

soql()
soql("a.socrata.endpoint?$select=*&$order=height")

Add SODA API endpoint

Description

Add an endpoint to an already-existing soql object.

Usage

soql_add_endpoint(soql_list, endpoint)

Arguments

soql_list The soql object. If you don’t have one yet, use the soql() function first. This can be piped in.
endpoint The endpoint should be the URL of the data, without any parameters.
soql_limit

Value

Returns a new soql object, with the endpoint added, for use in other functions.

References

Socrata’s documentation on what an endpoint is

See Also

soql

Examples

```r
if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_add_endpoint("https://fake.soda.api/resource.json") %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_add_endpoint(soql_chain, "https://fake.soda.api/resource.json")
  my_url <- as.character(soql_chain)
}
```

soql_limit  Limit the number of results from a SODA response

Description

Adds a parameter to the SODA URL that limits how many responses the API will send back.

Usage

soql_limit(soql_list, limit)

Arguments

soql_list  The soql object. If you don’t have one yet, use the soql() function first. This can be piped in.

limit  Number of records desired.

Value

Returns a new soql object, with a limit parameter added, for use in other functions.

References

Documentation on the SODA website
soql_offset

See Also

soql_offset

Examples

if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_limit(5) %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_limit(soql_chain, 5)
  my_url <- as.character(soql_chain)
}

soql_offset  Control which records you receive from a SODA API

Description

This function adds a parameter to a soql object that controls what index the returned records start at. For more information, view the SODA documentation linked in the References section below.

Usage

soql_offset(soql_list, offset)

Arguments

soql_list  The soql object. If you don’t have one yet, use the soql() function first. This can be piped in.

offset  Desired starting index of responses.

Value

Returns a new soql object, with an offset parameter added, for use in other functions.

References

Documentation on the SODA website

See Also

soql_limit
soql_queries

Examples

```r
if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_offset(50) %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_offset(soql_chain, 50)
  my_url <- as.character(soql_chain)
}
```

soql_queries  

**SoQL Queries**

Description

Wrapper functions around the SODA API’s queries: select, where, order, group, and q.

Usage

- `soql_select(soql_list, select_clause)`
- `soql_where(soql_list, where_clause)`
- `soql_order(soql_list, column, desc = FALSE)`
- `soql_group(soql_list, group_clause)`
- `soql_q(soql_list, q_clause)`

Arguments

- `soql_list`: The soql object. If you don’t have one yet, use the `soql()` function first. This can be piped in.
- `select_clause, where_clause, group_clause, q_clause`: String to be used as the given clause in the query.
- `column`: Column name to be ordered by.
- `desc`: Whether to order descending.

Value

Returns a new soql object, with parameters added, for use in other functions.

References

Documentation about these queries on the SODA website

See Also

`soql_simple_filter` for an easier method of doing where with equality.
soql_simple_filter

Examples

```r
if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_select("height,weight") %>%
    soql_where("height > 30") %>%
    soql_order("height", desc=TRUE) %>%
    soql_group("type") %>%
    soql_q("a") %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_select(soql_chain, "height,weight")
  soql_chain <- soql_where(soql_chain, "height > 30")
  soql_chain <- soql_order(soql_chain, "height", desc=TRUE)
  soql_chain <- soql_group(soql_chain, "type")
  soql_chain <- soql_q(soql_chain, "a")
  my_url <- as.character(soql_chain)
}
```

soql_simple_filter  Create a simple equality filter

Description

This function adds a parameter to the URL to filter records in a simple way, using equality only. For more advanced filters, see `soql_where`.

Usage

```r
soql_simple_filter(soql_list, column, value)
```

Arguments

- `soql_list`: The soql object. If you don’t have one yet, use the `soql()` function first. This can be piped in.
- `column`: The column name to filter by.
- `value`: The value the column must be equal to.

Value

Returns a new `soql` object, with a filter parameter added, for use in other functions.

References

Documentation on the SODA website
soql_simple_filter

See Also

soql_where

Examples

```r
if (require(magrittr)) {
  # With pipes
  my_url <- soql() %>%
    soql_simple_filter("height", 50) %>%
    as.character()
} else {
  # Without pipes
  soql_chain <- soql()
  soql_chain <- soql_simple_filter(soql_chain, "height", 50)
  my_url <- as.character(soql_chain)
}
```
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