Package ‘jqr’

December 4, 2023

Title  Client for 'jq', a 'JSON' Processor
Description  Client for 'jq', a 'JSON' processor (<https://jqlang.github.io/jq/>), written in C. 'jq' allows the following with 'JSON' data: index into, parse, do calculations, cut up and filter, change key names and values, perform conditionals and comparisons, and more.

Version  1.3.3
Depends  R (>= 3.1.2)
License  MIT + file LICENSE
Encoding  UTF-8
Language  en-US
LazyData  true

URL  https://docs.ropensci.org/jqr/ (docs),
      https://github.com/ropensci/jqr (devel)

BugReports  https://github.com/ropensci/jqr/issues
SystemRequirements  libjq: jq-devel (rpm) or libjq-dev (deb)
Imports  magrittr, lazyeval
Suggests  jsonlite, testthat
RoxygenNote  7.2.3
NeedsCompilation  yes

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Repository  CRAN
Date/Publication  2023-12-04 13:10:02 UTC
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### at

#### Format strings and escaping

**Description**

Format strings and escaping

**Usage**

```r
at(.data, ...)
at_(.data, ..., .dots)
```

**Arguments**

- `.data` input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.
- `...` Comma separated list of unquoted variable names
**Examples**

```r
x <- '{"user":"jqlang","titles":["JQ Primer", "More JQ"]}'
x %>% at(base64) %>% peek
x %>% at(base64)
x %>% index() %>% at(base64)

y <- ['"fo", "foo", "barfoo", "foobar", "barfoob"]
y %>% index() %>% at(base64)

## prepare for shell use
y %>% index() %>% at(sh)

## rendered as csv with double quotes
z <- '[1, 2, 3, "a"]'
z %>% at(csv)

## rendered as csv with double quotes
z %>% index()
z %>% index() %>% at(text)

## % encode for URI's
#### DOESNT WORK --------------------------

## html escape
#### DOESNT WORK --------------------------

## serialize to json
#### DOESNT WORK --------------------------
```

---

**Description**

Build arrays and objects

**Usage**

```r
build_array(.data, ...)
build_array_(.data, ..., .dots)
build_object(.data, ...)
build_object_(.data, ..., .dots)
```
Arguments

- `data`: input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.
- `...`: Comma separated list of unquoted variable names
- `dots`: Used to work around non-standard evaluation

Examples

### BUILD ARRAYS

```r
x <- '{"user":"jqlang", "projects": ["jq", "wikiflow"]}'
jq(x, "[.user, .projects[]]")
x %>% build_array(.user, .projects[])

jq('[1, 2, 3]', '[ .[] | . * 2]')
'[1, 2, 3]' %>% build_array([.[] | . * 2])
```

### BUILD OBJECTS

```r
'("foo": 5, "bar": 7)' %>% build_object(a = .foo) %>% peek
'("foo": 5, "bar": 7)' %>% build_object(a = .foo)

# using json dataset, just first element
x <- commits %>% index(0)
x %>
  build_object(message = .commit.message, name = .commit.committer.name)
x %>% build_object(sha = .commit.tree.sha, author = .author.login)

# using json dataset, all elements
x <- index(commits)
x %>% build_object(message = .commit.message, name = .commit.committer.name)
x %>% build_object(sha = .sha, name = .commit.committer.name)

# many JSON inputs
'("foo": 5, "bar": 7) "foo": 50, "bar": 7) "foo": 500, "bar": 7)' %>%
build_object(peek = .foo)
```

**Description**

Combine json pieces

**Usage**

```r
combine(x)
```
**commits**

**Arguments**

- `x` Input, of class json

**Examples**

```r
x <- '{"foo": 5, "bar": 7}%' %>% select(a = .foo)
combine(x)
```

```r
(x <- commits %>% index() %>%
  select(sha = .sha, name = .commit.committer.name))
combine(x)
```

**commits**

**GitHub Commits Data**

---

**Description**

GitHub Commits Data

**Format**

A character string of json github commits data for the jq repo.

---

**dot**

**dot and related functions**

---

**Description**

dot and related functions

**Usage**

```r
dot(.data)
dot_(.data, dots = ".")
dotstr(.data, ...)
dotstr_(.data, ..., .dots)
```

**Arguments**

- `.data` input. This can be JSON input, or an object of class jqr that has JSON and query params combined, which is passed from function to function when using the jqr DSL.
- `dots` dots
- `...` Comma separated list of unquoted variable names
- `.dots` Used to work around non-standard evaluation
Examples

```r
str <- '[["name":"JSON", "good":true], 
{"name":"XML", "good":false}]
str %>% dot
str %>% index %>% dotstr(name)
'("foo": 5, "bar": 8) %>% dot
'("foo": 5, "bar": 8)' %>% dotstr(foo)
'("foo": {"bar": 8})' %>% dotstr(foo.bar)
```

---

**funs**

*Define and use functions*

---

**Description**

Define and use functions

**Usage**

```r
funs(.data, fxn, action)
```

**Arguments**

- `.data` input
- `fxn` A function definition, without def (added internally)
- `action` What to do with the function on the data

**Examples**

```r
jq("[1,2,10,20]", 'def increment: . + 1; map(increment)')
"[1,2,10,20]" %>% funs('increment: . + 1', 'map(increment)')
"[1,2,10,20]" %>% funs('increment: . / 100', 'map(increment)')
"
[[1,2],[10,20]]" %>% funs('addvalue(f): f as $x | map(. + $x)', 'addvalue([0])')
"[1,2]" %>% funs('f(a;b;c;d;e;f): [a+1, b,c,d,e,f]', 'f([0];[1];[0];[0];[0];[0])')
"[1,2,3,4]" %>% funs('fac: if . == 1 then 1 else . * (. - 1 | fac) end', '[]) | fac')
```

---

**index**

*index and related functions*

---

**Description**

index and related functions
Index

Usage

index(.data, ...)

index_(.data, ..., .dots)

indexif(.data, ...)

indexif_(.data, ..., .dots)

dotindex(.data, ...)

dotindex_(.data, ..., .dots)

Arguments

.data input. This can be JSON input, or an object of class jqr that has JSON and query params combined, which is passed from function to function when using the jqr DSL.

... Comma separated list of unquoted variable names

.dots Used to work around non-standard evaluation

dots dots

dots dots

dots dots

dots dots

Details

• index/index_- queries like: .[], .[0], .[1:5], .["foo"]

• indexif/indexif_- queries like: .["foo"]?

• dotindex/dotindex_- queries like: .[].foo, .[].foo.bar

Examples

str <- '["name":"JSON", "good":true}, {"name":"XML", "good":false}]'

str %>% index

'("name":"JSON", "good":true) %>% indexif(name)

'("name":"JSON", "good":true) %>% indexif(good)

'("name":"JSON", "good":true) %>% indexif(that)

'("a": 1, "b": 1) %>% index

'[] %>% index

'['name":"JSON", "good":true}, {"name":"XML", "good":false}] %>% index(0)

'["a","b","c","d","e"] %>% index(2)

'["a","b","c","d","e"] %>% index(2:4)

'["a","b","c","d","e"] %>% index(2:5)

'["a","b","c","d","e"] %>% index("3")

'["a","b","c","d","e"] %>% index(-2)

str %>% index %>% select(bad = .name)

'[["name":"JSON", "good":true}, {"name":"XML", "good":false}] %>%
dotindex(name)

'[['name":"JSON", "good":true}, {"name":"XML", "good":false}] %>%
jq

Execute a query with jq

Description

jq is meant to work with the high level interface in this package. jq also provides access to the low level interface in which you can use jq query strings just as you would on the command line. Output gets class of json, and pretty prints to the console for easier viewing. jqr doesn’t do pretty printing.

Usage

jq(x, ...)

## S3 method for class 'jqr'
jq(x, ...)

## S3 method for class 'character'
jq(x, ..., flags = jq_flags())

## S3 method for class 'json'
jq(x, ..., flags = jq_flags())

## S3 method for class 'connection'
jq(x, ..., flags = jq_flags(), out = NULL)

Arguments

x     json object or character string with json data. this can be one or more valid json objects
...
     character specification of jq query. Each element in ... will be combined with "|", which is convenient for long queries.
flags     See jq_flags
out     a filename, callback function, connection object to stream output. Set to ’NULL’ to buffer all output and return a character vector.

See Also

peek
Examples

`{"a": 7}` %>% do(.a + 1)
`[8,3,null,6]` %>% sortj

```r
x <- '[["message": "hello", "name": "jenn"],
      ["message": "world", "name": "beth"]]
jq(index(x))

jq(`{"a": 7, "b": 4}`, 'keys')
jq(`[8,3,null,6]`, 'sort')
```

# many json inputs
jq(c("[123, 456]", 
    "[77, 88, 99]"), 
    ".[]")

# Stream from connection
tmp <- tempfile()
writeLines(c("[123, 456]", 
    "[77, 88, 99]"), tmp)
jq(file(tmp), ".[]")

```r
## Not run:
# from a url
x <- 'http://jeroen.github.io/data/diamonds.json'
jq(url(x), ".[]")
```

```r
## Not run:
# from a file
file <- file.path(tempdir(), "diamonds.nd.json")
download.file(x, destfile = file)
jq(file(file), ".carat")
jq(file(file), "select(.carat > 1.5)"
jq(file(file), 
"select(.carat > 4 and .cut == "Fair")")
```

## End(Not run)

---

**Description**

An R client for the C library jq

**Low-level**

Low level interface, in which you can execute ‘jq’ code just as you would on the command line. Available via jq

**High-level DSL**

High-level, uses a suite of functions to construct queries. Queries are constructed, then executed internally with jq
Pipes

The high level DSL supports piping, though you don’t have to use pipes.

NSE and SE

Most DSL functions have NSE (non-standard evaluation) and SE (standard evaluation) versions, which make jqr easy to use for interactive use as well as programming.

jq version

We link to jq through the installed version on your system, so the version can vary. Run `jq --version` to get your jq version.

indexing

Note that jq indexing starts at 0, whereas R indexing starts at 1. So when you want the first thing in an array using jq, for example, you want 0, not 1.

output data format

Note that with both the low level interface and the high level DSL, we print the output to look like a valid JSON object to make it easier to look at. However, it’s important to know that the output is really just a simple character string or vector of strings - it’s just the print function that pretty prints it and makes it look like a single JSON object. What jq is giving you often is a stream of valid JSON objects, each one of which is valid, but altogether are not valid. However, a trick you can do is to wrap your jq program in brackets like `[[]]` instead of `[]` to give a single JSON object.

Related to above, you can use the function provided `string` with the high level DSL to get back a character string instead of pretty printed version.

---

### jqr_new JQ Streaming API

**Description**

Low level JQ API. First create a program using a `query` and `flags` and then feed pieces of data.

**Usage**

```r
jqr_new(query, flags = jq_flags())
```

```r
jqr_feed(jqr_program, json, unlist = TRUE, finalize = FALSE)
```
jq_flags

Arguments

query  string with a valid jq program
flags  See jq_flags
jq_program  object returned by [jqr_new]
json  character vector with json data. If the JSON object is incomplete, you must set ‘finalize’ to ‘FALSE’ otherwise you get an error.
unlist  if ‘TRUE’ returns a single character vector with all output for each each string in ‘json’ input
finalize  completes the parsing and verifies that the JSON string is valid. Set this to ‘TRUE’ when feeding the final piece of data.

Examples

   program <- jqr_new(".["]")
   jqr_feed(program, c("[123, 456]", "[77, 88, 99]"))
   jqr_feed(program, c("[41, 234]"))
   jqr_feed(program, "", finalize = TRUE)

jq_flags  Flags for use with jq

Description

The flags function is provided for the high-level DSL approach, whereas the jq_flags function is used to provide the low-level jq with the appropriate flags.

Usage

jq_flags(
   pretty = FALSE,
   ascii = FALSE,
   color = FALSE,
   sorted = FALSE,
   stream = FALSE,
   seq = FALSE
)

flags(
   .data,
   pretty = FALSE,
   ascii = FALSE,
   color = FALSE,
   sorted = FALSE,
   stream = FALSE,
   seq = FALSE
)
### Arguments

pretty
- Pretty print the json (different to jsonlite’s pretty printing).
ascii
- Force jq to produce pure ASCII output with non-ASCII characters replaced by equivalent escape sequences.
color
- Add ANSI escape sequences for coloured output
sorted
- Output fields of each object with keys in sorted order
stream
- Parse the input in streaming fashion, outputing arrays of path and leaf values like jq --stream command line.
seq
- Use the application/json-seq MIME type scheme for separating JSON like the jq --seq command line.
.data
- A jqr object.

### Examples

```json
{("a": 7, "z": 0, "b": 4)} %> flags(sorted = TRUE)
jq("{"a": 7, "z": 0, "b": 4}" %> dot %> flags(sorted = TRUE))
jq("{"a": 7, "z": 0, "b": 4}" %> flags(sorted = TRUE))
jq("{"a": 7, "z": 0, "b": 4}" %> flags(sorted = TRUE))
```

### Description

keys takes no input, and retrieves keys. del deletes provided keys. haskey checks if a json string has a key, or the input array has an element at the given index.

### Usage

```r
keys(.data)
del(.data, ...)
del_(.data, ..., .dots)
haskey(.data, ...)
haskey_(.data, ..., .dots)
```

### Arguments

.data
- input. This can be JSON input, or an object of class jqr that has JSON and query params combined, which is passed from function to function when using the jqr DSL.
... 
- Comma separated list of unquoted variable names  
.dots
- Used to work around non-standard evaluation
dots
Examples

# get keys
str <- "{"foo": 5, "bar": 7}"
jq(str, "keys")
str %>% keys()

# delete by key name
jq(str, "del(.bar)"
str %>% del(bar)

# check for key existence
str3 <- '[[0,1], ["a","b","c"]]
jq(str3, "map(has(2))")
str3 %>% haskey(2)
jq(str3, "map(has(1,2))")
str3 %>% haskey(1,2)

## many JSON inputs
'("foo": 5, "bar": 7){"hello": 5, "world": 7}' %>% keys
'("foo": 5, "bar": 7){"hello": 5, "bar": 7}' %>% del(bar)

### logicaltests  Logical tests

Description
Logical tests

Usage
allj(.data)
anyj(.data)

Arguments
.data input. This can be JSON input, or an object of class jq that has JSON and query params combined, which is passed from function to function when using the jq DSL.

Examples

# any
'[true, false]' %>% anyj
'false, false' %>% anyj
'[[]' %>% anyj

# all
'[true, false]' %>% allj
manip

`'[true, true]' %>% allj
'[]' %>% allj

## many JSON inputs
`'[true, false] [true, true] [false, false]' %>% anyj
`'[true, false] [true, true] [false, false]' %>% allj

### Description

Manipulation operations

### Usage

- `join(.data, ...)`
- `join_(.data, ..., .dots)`
- `splitj(.data, ...)`
- `splitj_(.data, ..., .dots)`
- `ltrimstr(.data, ...)`
- `ltrimstr_(.data, ..., .dots)`
- `rtrimstr(.data, ...)`
- `rtrimstr_(.data, ..., .dots)`
- `startswith(.data, ...)`
- `startswith_(.data, ..., .dots)`
- `endswith(.data, ...)`
- `endswith_(.data, ..., .dots)`
- `index_loc(.data, ...)`
- `index_loc_(.data, ..., .dots)`
- `rindex_loc(.data, ...)`
- `rindex_loc_(.data, ..., .dots)`
indices(.data, ...)  
indices_(.data, ..., .dots)  
tojson(.data)  
fromjson(.data)  
tostring(.data)  
tonumber(.data)  
contains(.data, ...)  
contains_(.data, ..., .dots)  
uniquej(.data, ...)  
uniquej_(.data, ..., .dots)  
group(.data, ...)  
group_(.data, ..., .dots)

**Arguments**

`.data`  
input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.

`...`  
Comma separated list of unquoted variable names

`.dots`  
Used to work around non-standard evaluation

dots

**See Also**

`add`

**Examples**

```r
# join
str <- c("a","b,c,d","e")
jq(str, 'join(" ",")')
str %>% join
str %>% join(``
str %>% join(`yep``)
## many JSON inputs
c("a","b,c,d","e") ["a","f,e,f"] %>% join(`---``)
```
# split
jq("a, b,c,d, e", 'split(" ")')

# ltrimstr
jq('["fo", "foo", "barfoo", "foob", "afoo"], [[].ltrimstr("foo")])
'fo", "foo", "barfoo", "foob", "afoo")' % index() % ltrimstr(foo)

# rtrimstr
jq('["fo", "foo", "barfoo", "foob", "foo"], [[].rtrimstr("foo")])
'fo", "foo", "barfoo", "foob", "foo")' % index() % rtrimstr(foo)

# startswith
str <- ["fo", "foo", "barfoo", "foobar", "barfoob"]
jq(str, [\[\]|startswith("foo")])
str % index % startswith(foo)

## many JSON inputs
["fo", "foo"] ["barfoo", "foob", "barfoob"] % index % startswith(foo)

# endswith
jq(str, [\[\]|endswith("foo")])
str % index % endswith(foo)
str % index % endswith("bar")
str % index % endswith("bar")
str % index % endswith("foo")

## many JSON inputs
["fo", "foo"] ["barfoo", "foob", "barfoob"] % index % endswith(foo)

# get index (location) of a character
## input has to be quoted
str <- "a, b, cd, efg, hijk"
str % index_loc(" ")
str % index_loc("")
str % index_loc("j")
str % index_loc(",")
str % indices(" ", ")"

# tojson, fromjson, tostring, tonumber
[1, "foo", ["foo"] % index % tostring
[1, "1"] % index % tonumber
[1, "foo", ["foo"] % index % tojson
[1, "foo", ["foo"] % index % tojson % fromjson

# contains
"foo", % contains("bar")
["foo", "foobaz", "blarp"] % contains([bar, baz])
["foo", "foobaz", "blarp"] % contains(["baz", "bar"])
str % contains("foo", [1,2,3,4,5])
str % contains("foo", [1,2,3,4,5])

# unique
[1,2,5,3,5,3,1,3] % unique
str % contains("foo", [1,2], ["foo", 1, "bar": 3], ["foo", 4, "bar": 5])
```r
str %>% uniquej("foo")
str %>% uniquej_("foo")
['"chunky", "bacon", "kitten", "cicada", "asparagus"] %>% uniquej(length)

# group
x <- ['{"foo":1, "bar":10}, {"foo":3, "bar":100}, {"foo":1, "bar":1}]'
x %>% group("foo")
x %>% group_("foo")
```

## Description

Math operations

## Usage

- `do(.data, ...)`
- `do_(.data, ..., .dots)`
- `lengthj(.data)`
- `sqrtj(.data)`
- `floorj(.data)`
- `minj(.data, ...)`
- `minj_(.data, ..., .dots)`
- `maxj(.data, ...)`
- `maxj_(.data, ..., .dots)`
- `ad(.data)`
- `map(.data, ...)`
- `map_(.data, ..., .dots)`

## Arguments

- `.data` input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.
- `...` Comma separated list of unquoted variable names
Used to work around non-standard evaluation

Examples

# do math
jq("{"a": 7}\", ".a + 1")

# adding null gives back same result
jq("{"a": 7}\", ".a + null")
jq("{"a": 7}\", ".a += 1")

'{"a": 7}\>% do(.a + 1)

# this doesn't work quite yet
'{"a": [1, 2], "b": [3, 4]}\>% do(.a + .b)
'{"a": [1, 2], "b": [3, 4]}\>% do(.a - .b)
'{"a": 3}\>% do(4 - .a)

'[["xml", "yaml", "json"]]\>% do(\- ["xml", "yaml"])

'5'\>% do(10 / \* 3)

## many JSON inputs
{"a": [1, 2], "b": [3, 4]} {'a": [1, 5], "b": [3, 10]}\>% do(.a + .b)

# comparisons
'[[4, 2, 7]]\>% index()\>% do(. < 4)
'[[4, 2, 7]]\>% index()\>% do(. > 4)
'[[4, 2, 7]]\>% index()\>% do(. <= 4)
'[[4, 2, 7]]\>% index()\>% do(. >= 4)
'[[4, 2, 7]]\>% index()\>% do(. != 4)

## many JSON inputs
[[4, 2, 7]] [4, 3, 200, 0.1]\>% index()\>% do(. < 4)

# length
'[[1, 2], "string", ".a": 2], null]\>% index \>% lengthj

# sqrt
'9'\>% sqrtj

## many JSON inputs
'9 4 5'\>% sqrtj

# floor
'3.14159'\>% floorj

## many JSON inputs
'3.14159 30.14 45.9'\>% floorj

# find minimum
'[["foo":1, "bar":14], ",foo":2, "bar":3]]\>% minj
'[["foo":1, "bar":14], ",foo":2, "bar":3]]\>% minj(foo)
'[["foo":1, "bar":14], ",foo":2, "bar":3]]\>% minj(bar)

## many JSON inputs
'[["foo":1], ",foo":14]] [[foo":2, ",foo":3]]\>% minj(foo)

# find maximum
paths

Outputs paths to all the elements in its input

### Description

Outputs paths to all the elements in its input

### Usage

`paths(.data)`

### Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>.data</code></td>
<td>input</td>
</tr>
</tbody>
</table>
Examples

`'[1,[[,"a":2]]]' %>% paths
`[['"name":"JSON", "good":true}, ['"name":"XML", "good":false']]' %>% paths

---

peek

*Peek at a query*

Description

Prints the query resulting from jq all in one character string just as you would execute it on the command line. Output gets class of json, and pretty prints to the console for easier viewing.

Usage

peek(.data)

Arguments

.data (list) input, using higher level interface

See Also

jq.

Examples

`('a':7)' %>% do(.a + 1) %>% peek
`'[8,3,null,6]' %>% sortj %>% peek

---

rangej

*Produce range of numbers*

Description

Produce range of numbers

Usage

rangej(x, array = FALSE)

Arguments

x Input, single number or number range.
array (logical) Create array. Default: FALSE
Examples

2:4 %>% range
2:1000 %>% range
1 %>% range
4 %>% range

recurse

Search through a recursive structure - extract data from all levels

Description

Search through a recursive structure - extract data from all levels

Usage

recurse(.data, ...)

recurse_(.data, ..., .dots)

Arguments

.data input. This can be JSON input, or an object of class jqr that has JSON and query params combined, which is passed from function to function when using the jqr DSL.

... Comma separated list of unquoted variable names

.dots Used to work around non-standard evaluation
dots dots

Examples

x <- '{"name": "/", "children": [
  {"name": "/bin", "children": [
    {"name": "/bin/ls", "children": []},
    {"name": "/bin/sh", "children": []]}],
  {"name": "/home", "children": [
    {"name": "/home/stephen", "children": [
      {"name": "/home/stephen/jq", "children": []}]}]}]}'
x %>% recurse(.children[]) %>% build_object(name)
x %>% recurse(.children[]) %>% build_object(name) %>% string
select  

Select - filtering

Description

The function `select(foo)` produces its input unchanged if `foo` returns TRUE for that input, and produces no output otherwise.

Usage

```
select(.data, ...)
select_(.data, ..., .dots)
```

Arguments

- `.data`  
  input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.
- `...`  
  Comma separated list of unquoted variable names
- `.dots`  
  Used to work around non-standard evaluation
- `dots`  
  dots

Note

This function has changed what it does dramatically. We were using this function for object construction, which is now done with `build_object`.

Examples

```
jq('[1,5,3,0,7]', 'map(select(. >= 2))')
'[1,5,3,0,7] %>% map(select(. >= 2))

'("foo": 4, "bar": 7)' %>% select(.foo == 4)
'("foo": 5, "bar": 7) {"foo": 4, "bar": 7}' %>% select(.foo == 4)
'[{"foo": 5, "bar": 7}, {"foo": 4, "bar": 7}]' %>% index() %>% select(.foo == 4)
'("foo": 4, "bar": 7) {"foo": 5, "bar": 7} {"foo": 8, "bar": 7}' %>% select(.foo < 6)

x <- '("foo": 4, "bar": 2) {"foo": 5, "bar": 4} {"foo": 8, "bar": 12}'
jq(x, 'select((.foo < 6) and (.bar > 3))')
jq(x, 'select((.foo < 6) or (.bar > 3))')
x %>% select(.foo < 6) && (.bar > 3)
x %>% select(.foo < 6) || (.bar > 3)

x <- '([{"foo": 5, "bar": 7}, {"foo": 4, "bar": 7}, {"foo": 4, "bar": 9}]
```
sortj

jq(x, '[] | select(.foo == 4) | (user: .bar)')
x %>% index() %>% select(.foo == 4) %>% build_object(user = .bar)

---

**sortj**

*Sort and related*

**Description**

Sort and related

**Usage**

```r
sortj(.data, ...)
```

```r
sortj_(.data, ..., .dots)
```

```r
reverse(.data)
```

**Arguments**

`.data` input. This can be JSON input, or an object of class `jqr` that has JSON and query params combined, which is passed from function to function when using the `jqr` DSL.

`...` Comma separated list of unquoted variable names

`.dots` Used to work around non-standard evaluation

`dots` dots

**Examples**

```r
# sort
'[[8,3,null,6]] %>% sortj

'[["foo":4, "bar":10], ["foo":3, "bar":100], ["foo":2, "bar":1]]' %>%
  sortj(foo)

# reverse order
'[[1,2,3,4]] %>% reverse

# many JSON inputs
'[["foo":7], ["foo":4]] [["foo":300], ["foo":1]] [["foo":2], ["foo":1]]' %>%
  sortj(foo)

'[[1,2,3,4] [10,20,30,40] [100,200,300,4000]]' %>%
  reverse
```
string

Give back a character string

Description

Give back a character string

Usage

```
string(.data)
```

Arguments

- `.data` (list) input, using higher level interface

See Also

peek

Examples

```
'("a": 7)' %>% do(.a + 1) %>% string
'[
8, 3, null, 6]
' %>% sortj %>% string
```

types

Types and related functions

Description

Types and related functions

Usage

```
types(.data)
type(.data, ...)
type_(.data, ..., .dots)
```

Arguments

- `.data` input. This can be JSON input, or an object of class jqr that has JSON and query params combined, which is passed from function to function when using the jqr DSL.
- `...` Comma separated list of unquoted variable names
- `.dots` Used to work around non-standard evaluation
- `dots`
Examples

# get type information for each element
jq('[0, false, [], {}, null, "hello"], map(type)
' '[0, false, [], {}, null, "hello"] %>% types
' '[0, false, [], {}, null, "hello", true, [1,2,3]]' %>% types

# select elements by type
jq('[0, false, [], {}, null, "hello"], .[] | numbers,booleans'
' '[0, false, [], {}, null, "hello"] %>% index() %>% type(booleans)

<table>
<thead>
<tr>
<th>vars</th>
<th>Variables</th>
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Description

Variables

Usage

vars(.data, ...)

vars_(.data, ..., .dots)

Arguments

.data input. This can be JSON input, or an object of class jqr that has JSON and
query params combined, which is passed from function to function when using
the jqr DSL.

... Comma separated list of unquoted variable names

.dots Used to work around non-standard evaluation
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Examples

x <- '{
  "posts": [
    {"title": "Frist psot", "author": "anon"},
    {"title": "A well-written article", "author": "person1"}
  ],
  "realnames": {
    "anon": "Anonymous Coward",
    "person1": "Person McPherson"
  }
}'

x %>% dotstr(posts[])
x %>% dotstr(posts[]) %>% string
x %>% vars(realnames = names) %>% dotstr(posts[]) %>%
  build_object(title, author = "$names[.author]"
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