

Package ‘forge’

October 13, 2022

Type Package

Title Casting Values into Shape

Version 0.2.0

Description Helper functions with a consistent interface to coerce and verify the types and shapes of values for input checking.

License Apache License (>= 2.0)

Encoding UTF-8

LazyData true

Depends R (>= 3.1.2)

Imports rlang (>= 0.3.1), magrittr

RoxygenNote 6.1.0

Suggests testthat, covr

NeedsCompilation no

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cast	<i>Cast values into shape</i>
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Description

These functions verify and attempt to coerce values into the specified types and shapes. If they are unsuccessful in the coercion, an error is thrown.

Usage

```
cast_integer(x, n = NULL, allow_na = FALSE, allow_null = FALSE,  
            id = NULL, return_id = FALSE)
```

```
cast_scalar_integer(x, allow_na = FALSE, allow_null = FALSE,  
                   id = NULL, return_id = FALSE)
```

```
cast_nullable_integer(x, n = NULL, allow_na = FALSE, id = NULL,  
                     return_id = FALSE)
```

```
cast_nullable_scalar_integer(x, allow_na = FALSE, id = NULL,  
                             return_id = FALSE)
```

```
cast_integer_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,  
                 id = NULL, return_id = FALSE)
```

```
cast_nullable_integer_list(x, n = NULL, allow_na = FALSE, id = NULL,  
                           return_id = FALSE)
```

```
cast_double(x, n = NULL, allow_na = FALSE, allow_null = FALSE,  
            id = NULL, return_id = FALSE)
```

```
cast_scalar_double(x, allow_na = FALSE, allow_null = FALSE,  
                  id = NULL, return_id = FALSE)
```

```
cast_nullable_double(x, n = NULL, allow_na = FALSE, id = NULL,  
                    return_id = FALSE)
```

```
cast_nullable_scalar_double(x, allow_na = FALSE, id = NULL,  
                            return_id = FALSE)
```

```
cast_double_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,  
                id = NULL, return_id = FALSE)
```

```
cast_nullable_double_list(x, n = NULL, allow_na = FALSE, id = NULL,  
                          return_id = FALSE)
```

```
cast_character(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
```

```
id = NULL, return_id = FALSE)

cast_scalar_character(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_character(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_scalar_character(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_character_list(x, n = NULL, allow_na = FALSE,
  allow_null = FALSE, id = NULL, return_id = FALSE)

cast_nullable_character_list(x, n = NULL, allow_na = FALSE,
  id = NULL, return_id = FALSE)

cast_string(x, allow_na = FALSE, allow_null = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_string(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_string_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_string_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_logical(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_scalar_logical(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_logical(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_scalar_logical(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_logical_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_logical_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_choice(x, choices, allow_na = FALSE, allow_null = FALSE,
```

```
id = NULL, return_id = FALSE)
```

Arguments

x	A vector.
n	The required length of the vector. If NULL, the length is not checked.
allow_na	Whether to allow NAs in the vector.
allow_null	Whether to allow NULL.
id	Name given to the input to aid the user in identifying the bad value.
return_id	Whether to return the ID as an attribute. This should only be set to TRUE when piping the result to another forge function. Defaults to FALSE.
choices	A character, numeric, or integer vector of allowed values.

Examples

```
# Cast a double vector to integer
cast_integer(c(1, 2))

# Cast a numeric to a string
cast_string(4.5)

# Cast an integer vector to a list of doubles
cast_double_list(1:4)
```

certify

Ensure Conditions on a Value

Description

Checks that the input value satisfies specified conditions

Usage

```
certify(x, ..., allow_null = FALSE, id = NULL, return_id = FALSE)

gt(l)

gte(l)

lt(u)

lte(u)

bounded(l = NULL, u = NULL, incl_lower = TRUE, incl_upper = TRUE)
```

Arguments

<code>x</code>	The value to be checked.
<code>...</code>	Conditions to be checked; should be functions that return TRUE/FALSE.
<code>allow_null</code>	Whether to allow null input.
<code>id</code>	Name given to the input to aid the user in identifying the bad value.
<code>return_id</code>	Whether to return the ID as an attribute. This should only be set to TRUE when piping the result to another forge function. Defaults to FALSE.
<code>l</code>	Lower bound for the inequality condition.
<code>u</code>	Upper bound for the inequality condition.
<code>incl_lower</code>	Whether to include the left endpoint.
<code>incl_upper</code>	Whether to include the right endpoint.

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