# Package ‘forge’

February 26, 2019

**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 values into shape**

**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**

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

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

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

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

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

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

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

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

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

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

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

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

```r
cast_character(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
               id = NULL, return_id = FALSE)
```
cast

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,
certify

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

- **x**: The value to be checked.
- **...**: Conditions to be checked; should be functions that return TRUE/FALSE.
- **allow_null**: Whether to allow null input.
- **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.
- **l**: Lower bound for the inequality condition.
- **u**: Upper bound for the inequality condition.
- **incl_lower**: Whether to include the left endpoint.
- **incl_upper**: Whether to include the right endpoint.
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