

Package ‘tidyna’

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Title NA-Aware Defaults for Common R Functions

Version 0.1.2

Description

Provides drop-in replacements for common R functions (mean(), sum(), sd(), min(), etc.) that default to 'na.rm = TRUE' and issue warnings when missing values are removed. It handles some special cases. The table() default is set to 'useNA = ifany'.

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Imports cli (>= 3.0.0)

Suggests testthat (>= 3.0.0), withr

Config/testthat/edition 3

URL <https://github.com/statzhero/tidyna>

BugReports <https://github.com/statzhero/tidyna/issues>

NeedsCompilation no

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correlation-functions *NA-aware Correlation Function*

Description

Drop-in replacement for `cor()` that defaults to `use = "pairwise.complete.obs"`.

Usage

```
cor(  
  x,  
  y = NULL,  
  use = "pairwise.complete.obs",  
  method = c("pearson", "kendall", "spearman"),  
  ...  
)
```

Arguments

<code>x</code>	A numeric vector, matrix, or data frame.
<code>y</code>	Optional. A numeric vector, matrix, or data frame.
<code>use</code>	Method for handling missing values. Default <code>"pairwise.complete.obs"</code> .
<code>method</code>	Correlation method: <code>"pearson"</code> , <code>"kendall"</code> , or <code>"spearman"</code> .
<code>...</code>	Additional arguments passed to <code>stats::cor()</code> .

Value

A correlation matrix or single correlation coefficient.

Examples

```
x <- c(1, 2, NA, 4)  
y <- c(2, 4, 6, 8)  
cor(x, y)
```

extrema-functions *NA-aware Extrema Functions*

Description

Drop-in replacements for `min()` and `max()` that default to `na.rm = TRUE`.

Usage

```
min(..., na.rm = TRUE)
```

```
max(..., na.rm = TRUE)
```

Arguments

```
...           Numeric or character arguments.  
na.rm        Logical. Should missing values be removed? Default TRUE.
```

Value

A length-one vector.

Examples

```
x <- c(1, NA, 5, 3)  
min(x)  
max(x)  
  
# Multiple arguments  
min(c(5, NA), c(1, 2))
```

logical-functions *NA-aware Logical Functions*

Description

Drop-in replacements for `any()` and `all()` that default to `na.rm = TRUE`.

Usage

```
any(x, na.rm = TRUE, ...)
```

```
all(x, na.rm = TRUE, ...)
```

Arguments

```
x           A numeric vector.  
na.rm       Logical. Should missing values be removed? Default TRUE.  
...         Additional arguments passed to the base function.
```

Value

A single logical value.

Examples

```
x <- c(TRUE, NA, FALSE)
any(x)
all(x)
```

row-functions

NA-aware Row-wise Functions

Description

Drop-in replacements for `rowMeans()` and `rowSums()` that default to `na.rm = TRUE`. Importantly, `rowSums()` returns NA for rows where ALL values are missing.

Usage

```
rowMeans(x, na.rm = TRUE, ...)
```

```
rowSums(x, na.rm = TRUE, dims = 1L, ...)
```

Arguments

<code>x</code>	A numeric matrix or data frame.
<code>na.rm</code>	Logical. Should missing values be removed? Default TRUE.
<code>...</code>	Additional arguments passed to the base function.
<code>dims</code>	Integer. Number of dimensions to treat as rows.

Value

A numeric or complex array of suitable size, or a vector if the result is one-dimensional.

Examples

```
mat <- matrix(c(1, NA, 3, NA, NA, NA), nrow = 2, byrow = TRUE)
rowSums(mat)
```

```
# Compare to base R:
base::rowSums(mat, na.rm = TRUE)
```

summary-functions *NA-aware Summary Functions*

Description

Drop-in replacements for summary functions that default to `na.rm = TRUE` and warn when missing values are removed.

Usage

```
mean(x, na.rm = TRUE, ...)  
sum(x, na.rm = TRUE, ...)  
prod(x, na.rm = TRUE, ...)  
sd(x, na.rm = TRUE, ...)  
var(x, na.rm = TRUE, ...)  
median(x, na.rm = TRUE, ...)  
quantile(x, na.rm = TRUE, ...)
```

Arguments

<code>x</code>	A numeric vector.
<code>na.rm</code>	Logical. Should missing values be removed? Default TRUE.
<code>...</code>	Additional arguments passed to the base function.

Value

The computed summary statistic.

Examples

```
x <- c(1, 2, NA, 4)  
mean(x)  
  
# Suppress warnings  
options(tidyna.warn = FALSE)  
mean(x)  
options(tidyna.warn = TRUE)  
  
# Use base behavior  
mean(x, na.rm = FALSE)
```

table-functions	<i>NA-aware Table Function</i>
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Description

Drop-in replacement for `table()` that defaults to `useNA = "ifany"`, showing NA counts when present.

Usage

```
table(..., useNA = "ifany")
```

Arguments

<code>...</code>	Objects to cross-tabulate.
<code>useNA</code>	Whether to include NA values. Default "ifany".

Value

A contingency table of class `table`.

Examples

```
x <- c("a", "b", NA, "a", NA)
table(x)
```

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