

Package ‘lookup’

April 14, 2021

Type Package

Title Functions Similar to VLOOKUP in Excel

Version 1.0

Description Simple functions to lookup items in key-value pairs. See Mehta (2021) <doi:10.1007/978-1-4842-6613-7_6>.

URL <https://kwstat.github.io/lookup/>

BugReports <https://github.com/kwstat/lookup/issues>

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Language en-US

Encoding UTF-8

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/testthat/edition 3

RoxygenNote 7.1.1

NeedsCompilation no

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lookup

Lookup items in key-value pairs of vectors

Description

This is a simple wrapper to the match function.

Usage

```
lookup(x, key, value, nomatch = NA)
```

Arguments

| | |
|---------|--|
| x | Vector of items to lookup in key-value pairs. |
| key | Vector of keys that are searched. |
| value | Vector of values to be returned. |
| nomatch | The value to be returned in the case when no match is found. Note that it is coerced to integer. |

Details

Search for elements of x in key and return the corresponding element of value. If no match is found, return nomatch.

Value

A vector the same length as x, but containing the values of value. If x[i] is equal to key[j], then the value returned in the ith position of the vector is value[j]. If no match is found, NA is returned.

Author(s)

Kevin Wright

Examples

```
# Example 1. A and B have different factor levels
A <- factor(c("A", "E", "F"))
B <- factor(c("E", "F", "G"))
v <- c(4, 2, 0)
lookup(A, B, v)

# Example 2. Merge treatment means back into the raw data
dat <- data.frame(Trt = rep(LETTERS[1:5], 2),
                  x = round(rnorm(10), 2))
# Treatment B is missing all values, treatment D missing one value
dat$x[dat$Trt == "B"] <- NA
dat$x[4] <- NA
# Calculate treatment means
```

```
TrtMean <- tapply(dat$x, dat$Trt, mean, na.rm=TRUE)
TrtMean
# Merge the means into the original data
dat$TrtMean <- lookup(dat$Trt, names(TrtMean), TrtMean)
```

| | |
|---------|--|
| vlookup | <i>Lookup items in key-value dataframe similar to Excel's vlookup function</i> |
|---------|--|

Description

This is a simple wrapper to the match function.

Usage

```
vlookup(x, data, key, value, nomatch = NA)
```

Arguments

| | |
|---------|--|
| x | Vector of items to lookup in key-value pairs. |
| data | Dataframe containing key-value columns. |
| key | Vector of keys that are searched. |
| value | Vector of values to be returned. |
| nomatch | The value to be returned in the case when no match is found. Note that it is coerced to integer. |

Details

Search for elements of x in dataframe data, column key, and return the corresponding element of column value. If no match is found, return nomatch.

Value

A vector the same length as x, but containing the values of value. If x[i] is equal to key[j], then the value returned in the ith position of the vector is value[j]. If no match is found, NA is returned.

Author(s)

Kevin Wright

Examples

```
# Example 1. A and B have different factor levels
A <- factor(c("A", "E", "F"))
dat <- data.frame(trt = factor(c("E", "F", "G")),
                 val = c(4, 2, 0))
vlookup(A, dat, "trt", "val")
```

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