Package ‘anonymizer’

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Title Anonymize Data Containing Personally Identifiable Information
Version 0.2.0
Description Allows users to quickly and easily anonymize data containing
Personally Identifiable Information (PII) through convenience functions.
URL https://github.com/paulhendricks/anonymizer
BugReports https://github.com/paulhendricks/anonymizer/issues
Depends R (>= 3.1.2)
License MIT + file LICENSE
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Suggests digest, testthat
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anonymize

Anonymize a vector.

Description

anonymize anonymizes a vector \( x \) by first salting it with \texttt{salt} and then hashing it with \texttt{hash}. See both functions for additional documentation.

Usage

\begin{verbatim}
anonymize(.x, .algo = "sha256", .seed = 0, .chars = letters, .n_chars = 5L, ...)
\end{verbatim}

Arguments

\begin{itemize}
\item \( .x \): a vector.
\item \( .algo \): the name of the algorithm.
\item \( .seed \): an integer to seed the random number generator.
\item \( .chars \): set of characters to salt with.
\item \( .n_chars \): an integer; number of characters to salt with.
\item \ldots: additional arguments to be based to \texttt{hash}.
\end{itemize}

Details

The user is advised to check out Wikipedia for more information.

Value

An anonymized version of the vector.

Examples

\begin{verbatim}
set.seed(1)
anonymize(letters)
\end{verbatim}

anonymizer

\texttt{anonymizer}: Anonymize Data Containing Personally Identifiable Information

Description

\texttt{anonymizer}: Anonymize Data Containing Personally Identifiable Information
hash

Hash a vector.

Description

See digest for additional documentation.

Usage

hash(.x, .algo = "sha256", .seed = 0, ...)

Arguments

.x a vector.
.algo the name of the algorithm.
.seed an integer to seed the random number generator.
... additional arguments to be based to digest.

Details

The user is advised to check out Wikipedia for more information.

Value

A hashed version of the vector.

Examples

# All algorithms available to digest::digest are available here
set.seed(1)
hash(letters, .algo = "sha256")
hash(letters, .algo = "crc32")

salt

Salt a vector.

Description

salt takes a vector .x and returns a salted version of it. The algorithm for salting a vector is:

1. Select a random sample of characters of length .n_chars from .chars. Call this random sample .y.
2. Concatenate .y, the vector .x, and .y again in a vectorized fashion.
Usage

salt(x, .seed = NULL, .chars = letters, .n_chars = 5L)

Arguments

- **x**: a vector.
- **.seed**: an integer to seed the random number generator.
- **.chars**: set of characters to salt with.
- **.n_chars**: an integer; number of characters to salt with.

Details

The user is advised to check out Wikipedia for more information.

Value

A salted version of the vector.

Examples

```r
# use various number of characters
salt(letters, .n_chars = 0L)
salt(letters, .n_chars = 1L)
salt(letters, .n_chars = 5L)
salt(letters)

# use other sets of characters to salt with
salt(letters, .chars = letters[1:2])
```

---

unsalt

Unsalt a vector.

Description

salt takes a vector `.x` and returns an unsalted version of it. The algorithm for unsalting a vector is:

1. Select a random sample of characters of length `.n_chars` from `.chars`. Call this random sample `.y`.
2. Substitute `.y` out of the vector `.x` wherever it occurs, in a vectorized fashion.

Usage

unsalt(.x, .seed = NULL, .chars = letters, .n_chars = 5L)
unsalt

Arguments

.x a vector.
.seed an integer to seed the random number generator.
.chars set of characters to unsalt with.
.n_chars an integer; number of characters to unsalt with.

Details

The user is advised to check out Wikipedia for more information.

Value

An unsalted version of the vector.

Examples

# Use various number of characters
unsalt(salt(letters, .n_chars = 0L))
unsalt(salt(letters, .n_chars = 1L))
unsalt(salt(letters, .n_chars = 5L))
unsalt(salt(letters))

# Use other sets of characters to salt with
unsalt(salt(letters, .chars = letters[1:2]), .chars = letters[1:2])
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