Package: placematchr (via r-universe)

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Title Normalize and Match City Names to NUTS Regions

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Date 2026-03-06

Description Normalizes city names for EEA countries and matches them to NUTS 3 regions using provided crosswalks. Features include comprehensive normalization rules, cascading matching logic (Exact NUTS -> Exact LAU -> Fuzzy), and single-source data synthesis. The package implements the NUTS classification as described in the NUTS methodology (Eurostat (2021) <https://ec.europa.eu/eurostat/web/nuts>).

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Encoding UTF-8

LazyData true

Imports dplyr, stringr, stringdist, data.table, tidyr, rlang

Suggests testthat, readxl

RoxygenNote 7.3.3

NeedsCompilation no

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`generate_fake_cities` *Generate Fake City Data*

Description

Generates a vector of fake city names for testing, including common variations and noise.

Usage

```
generate_fake_cities(n = 10, country = "DE")
```

Arguments

`n`	Integer, matching number of cities to generate.
`country`	"DE" or "CH".

Value

Character vector of city names.

Examples

```
# Generate 5 fake German cities
generate_fake_cities(5, country = "DE")

# Generate 3 fake Swiss cities
generate_fake_cities(3, country = "CH")
```

lau_data *Local Administrative Units (LAU) Crosswalks*

Description

Datasets containing mappings from city names to LAU codes and NUTS 3 regions for various countries. The data handles string normalization and matches cities to their respective statistical regions.

Usage

```
lau_at

lau_be

lau_bg

lau_ch

lau_cy

lau_cz

lau_de

lau_dk

lau_ee

lau_el

lau_es

lau_fi

lau_fr

lau_hr

lau_hu

lau_ie

lau_it

lau_li
```

`lau_lt`

`lau_lu`

`lau_lv`

`lau_mk`

`lau_mt`

`lau_nl`

`lau_no`

`lau_pl`

`lau_pt`

`lau_ro`

`lau_se`

`lau_si`

`lau_sk`

`lau_tr`

Format

Data frames with varying columns depending on the country, typically including:

lau_id Local Administrative Unit code

lau_name Name of the Local Administrative Unit

nuts_3_id NUTS 3 region code

population Population (if available)

An object of class `data.frame` with 2093 rows and 5 columns.

An object of class `data.frame` with 571 rows and 5 columns.

An object of class `data.frame` with 265 rows and 5 columns.

An object of class `data.frame` with 2135 rows and 5 columns.

An object of class `data.frame` with 617 rows and 5 columns.

An object of class `data.frame` with 6258 rows and 5 columns.

An object of class `data.frame` with 10972 rows and 5 columns.

An object of class `data.frame` with 99 rows and 5 columns.

An object of class `data.frame` with 79 rows and 5 columns.

An object of class `data.frame` with 6142 rows and 5 columns.

An object of class `data.frame` with 8132 rows and 5 columns.

An object of class `data.frame` with 309 rows and 5 columns.

An object of class `data.frame` with 32774 rows and 5 columns.

An object of class `data.frame` with 556 rows and 5 columns.

An object of class `data.frame` with 3155 rows and 5 columns.

An object of class `data.frame` with 166 rows and 5 columns.

An object of class `data.frame` with 7900 rows and 5 columns.

An object of class `data.frame` with 11 rows and 5 columns.

An object of class `data.frame` with 60 rows and 5 columns.

An object of class `data.frame` with 100 rows and 5 columns.

An object of class `data.frame` with 43 rows and 5 columns.

An object of class `data.frame` with 80 rows and 5 columns.

An object of class `data.frame` with 68 rows and 5 columns.

An object of class `data.frame` with 342 rows and 5 columns.

An object of class `data.frame` with 378 rows and 5 columns.

An object of class `data.frame` with 2477 rows and 5 columns.

An object of class `data.frame` with 3092 rows and 5 columns.

An object of class `data.frame` with 3181 rows and 5 columns.

An object of class `data.frame` with 290 rows and 5 columns.

An object of class `data.frame` with 211 rows and 5 columns.

An object of class `data.frame` with 2927 rows and 5 columns.

An object of class `data.frame` with 972 rows and 5 columns.

Source

Eurostat and national statistical institutes.

`match_city` *Match City Names to NUTS Regions*

Description

Matches a vector of city names to NUTS 3 regions using a cascading logic for any supported country.

Usage

```
match_city(x, country = "DE", fuzzy = TRUE, threshold = 0.95)
```

Arguments

x	Character vector of city names.
country	Character string of two-letter country code (e.g. "DE", "FR").
fuzzy	Logical, whether to perform fuzzy matching.
threshold	Numeric, similarity threshold for fuzzy matching (0-1).

Value

A data frame with columns: original, city_clean, nuts_3_id, lau_name, match_type, similarity.

Examples

```
# Match German cities
cities <- c("Berlin", "Munich", "Hamburg")
match_city(cities, country = "DE")

# Match with exact matching only (no fuzzy)
match_city(c("Frankfurt am Main"), country = "DE", fuzzy = FALSE)
```

---

normalize_city *Normalize City Names*

Description

Normalizes city names for EEA countries using comprehensive rules tailored to each language/region.

Usage

```
normalize_city(x, country = "DE")
```

Arguments

x	Character vector of city names.
country	Character string of the ISO 2-character country code (e.g. "DE", "FR", "PL").

Value

Character vector of normalized names.

Examples

```
# Normalize German city names
# Normalize German city names
normalize_city(c("M\u00FCnchen", "K\u00F6ln", "Frankfurt a.M."), country = "DE")

# Normalize Swiss city names
normalize_city(c("Z\u00FCrich", "Gen\u00E8ve", "Basel-Stadt"), country = "CH")
```

nuts_data *NUTS 3 Region Metadata*

Description

Metadata for NUTS 3 regions for various countries, used for hierarchical matching.

Usage

```
nuts_at

nuts_be

nuts_bg

nuts_ch

nuts_cy

nuts_cz

nuts_de

nuts_dk

nuts_ee

nuts_el

nuts_es

nuts_fi

nuts_fr

nuts_hr

nuts_hu

nuts_ie

nuts_it

nuts_li

nuts_lt
```

nuts_lu

nuts_lv

nuts_mk

nuts_mt

nuts_nl

nuts_no

nuts_pl

nuts_pt

nuts_ro

nuts_se

nuts_si

nuts_sk

nuts_tr

Format

Data frames with columns:

nuts_3_id NUTS 3 region code

nuts_3_name Name of the NUTS 3 region

An object of class `data.frame` with 35 rows and 4 columns.

An object of class `data.frame` with 43 rows and 4 columns.

An object of class `data.frame` with 28 rows and 4 columns.

An object of class `data.frame` with 26 rows and 4 columns.

An object of class `data.frame` with 1 rows and 4 columns.

An object of class `data.frame` with 14 rows and 4 columns.

An object of class `data.frame` with 401 rows and 4 columns.

An object of class `data.frame` with 11 rows and 4 columns.

An object of class `data.frame` with 5 rows and 4 columns.

An object of class `data.frame` with 53 rows and 4 columns.

An object of class `data.frame` with 59 rows and 4 columns.

An object of class `data.frame` with 19 rows and 4 columns.

An object of class `data.frame` with 96 rows and 4 columns.

An object of class `data.frame` with 21 rows and 4 columns.

An object of class `data.frame` with 20 rows and 4 columns.

An object of class `data.frame` with 8 rows and 4 columns.

An object of class `data.frame` with 107 rows and 4 columns.

An object of class `data.frame` with 1 rows and 4 columns.

An object of class `data.frame` with 10 rows and 4 columns.

An object of class `data.frame` with 1 rows and 4 columns.

An object of class `data.frame` with 5 rows and 4 columns.

An object of class `data.frame` with 8 rows and 4 columns.

An object of class `data.frame` with 2 rows and 4 columns.

An object of class `data.frame` with 40 rows and 4 columns.

An object of class `data.frame` with 17 rows and 4 columns.

An object of class `data.frame` with 73 rows and 4 columns.

An object of class `data.frame` with 26 rows and 4 columns.

An object of class `data.frame` with 42 rows and 4 columns.

An object of class `data.frame` with 21 rows and 4 columns.

An object of class `data.frame` with 12 rows and 4 columns.

An object of class `data.frame` with 8 rows and 4 columns.

An object of class `data.frame` with 81 rows and 4 columns.

Source

Eurostat

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