Package 'airportr'

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Type Package

Title Convenience Tools for Working with Airport Data

Version 0.1.3

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Description Retrieves open source airport data and provides tools to look up information, translate names into codes and vice-verse, as well as some basic calculation functions for measuring distances. Data is licensed under the Open Database License.

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Encoding UTF-8

LazyData true

Imports dplyr

Depends R(>= 2.10.0)

URL https://github.com/dshkol/airportr

BugReports https://github.com/dshkol/airportr/issues

RoxygenNote 6.1.1

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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R topics documented:

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airportr   airportr *package*

Description

Package to work with airport data

Details

See the README on GitHub

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airports   *Table of airport detail data*

Description

A dataset containing names, codes, locations, altitude, and timezones for airports

Usage

airports

Format

A data frame with 7698 rows and 14 variables:

OpenFlights ID OpenFlights database ID

Name Airport name, sometimes contains name of the city

City Name of city served by airport

IATA 3-letter IATA code

ICAO 4-letter ICAO code

Country Country name as in OpenFlights database. Note that country names may not be ISO 3166-1 standard.

Country Code ISO 3166-1 numeric country code

Country Code (Alpha-2) Name of city served by airport

Country Code (Alpha-3) Name of country where airport is located

Latitude Latitude in decimal degrees

Longitude Longitude in decimal degrees

Altitude Altitude in feet

UTC Hours offset from UTC

DST Daylight savings time. One of E (Europe), A (US/Canada), S (South America), O (Australia), Z (New Zealand), N (None) or U (Unknown)

Timezone Timezone in Olson format

Type Type of airport

Source Source of data. Airport data generally sourced from OurAirports

Source

https://openflights.org/data.html

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airports_around   *Lookup airports near specified coordinates*

Description

A function that returns details of all airports within a user-specified distance of an input coordinate location. Takes as input a longitude and latitude argument.

Usage

```
airports_around(lat, lon, distance = 100)
```

Arguments

lat	Latitude in decimal degrees
lon	Longitude in decimal degrees
distance	Distance boundary for nearest airport lookup in kilometres

Value

A tibble of airports that fall within the specified range of specified location

Examples

```
airports_around(-123,49.2)

# Or with a user specified distance in kilometres
airports_around(-123, 49.2, distance = 200)
```

---

airports_near_airport   *Lookup airports nearby other airports*

Description

A function that returns details of airports within a user-specified distance of a given airport.

Usage

```
airports_near_airport(input, distance = 100)
```

Arguments

input	An airport name, IATA code, or ICAO code. Input type will be guessed unless explicitly defined
distance	Distance boundary for nearest airport lookup in kilometres

Value

A tibble of airports that fall within the specified range of input airport

Examples

```
airports_near_airport("YVR")

# Or with a user specified distance in kilometres
airports_near_airport("YVR", distance = 200)
```

---

airport_detail   *Lookup full airport details based of a standard airport input*

Description

Return all airport details given an input IATA code, ICAO code, or airport name.

Usage

```
airport_detail(input, input_type)
```

Arguments

input	An airport name, IATA code, or ICAO code. Input type will be guessed unless explicitly defined
input_type	One of "name", "IATA", or "ICAO". Function will attempt to guess type if not supplied

Value

A 1x14 tibble with airport details

Examples

```
airport_detail("YVR")
airport_detail("London Heathrow Airport")
```

---

airport_distance	*Calculate great circle distance between two airports*

Description

A function that calculates distances between pairs of airport codes. Distances are calculated using the Haversine formula which assumes a spherical earth. Distances are returned in kilometres.

Usage

```
airport_distance(airport1, airport2)
```

Arguments

airport1	Takes a three-letter IATA code corresponding to an airport
airport2	As above

Value

The great circle distance in kilometres between the two airports

Examples

```
airport_distance("YVR","YYZ")
```

---

airport_location	*Lookup airport location coordinates given a standard airport input.*

Description

Returns airport location in longitude and latitude coordinates given an input IATA code, ICAO code, or airport name.

Usage

```
airport_location(input, input_type)
```

Arguments

input	An airport name, IATA code, or ICAO code. Input type will be guessed unless #' explicitly defined
input_type	One of "name", "IATA", or "ICAO". Function will attempt to guess type if not supplied

Value

List of longitude and latitude coordinates

Examples

```
airport_location("YVR","IATA")
#' airport_location("Vancouver International Airport","name")
```

---

airport_lookup	*Translate airport codes or names into other standard airport formats*

Description

Return city name, airport name, IATA code, or IACO code given an input IATA code, ICAO code, or airport name.

Usage

```
airport_lookup(input, input_type = "IATA", output_type = "name")
```

Arguments

input	An airport name, IATA code, or ICAO code. Input type will be guessed unless #' explicitly defined
input_type	One of "name", "IATA", or "ICAO". Function will attempt to guess type if not supplied
output_type	One of "name", "city", "IATA", or "ICAO". Defaults to "name" if otherwise not specified

Value

The appropriate city, airport name, IATA code, or ICAO code for that airport

Examples

```
airport_lookup("CYVR")
airport_lookup("YVR", output_type = "city")
airport_lookup("Vancouver International Airport", input_type="name",output_type = "IATA")
airport_lookup("YVR",input_type = "IATA", output_type = "city")

# Produces a list of similar named airports
airport_lookup("Vancoover","name","city")
```

---

city_airports | *Return all airports serving an input city.*

Description

This function takes a city normal city name as an input argument and returns all airports associated with that city. Airports are typically associated with their local metropolitan area but some exceptions may be present in the data. If there are no matching results in the data for the city argument, a list of closely named alternatives will be suggested with a warning.

Usage

```
city_airports(city, country)
```

Arguments

city
: A city name. If no exact match will attempt to prompt user with suggested alternatives

country
: (Optional) A country name or ISO country code in either numeric, alpha-2, or alpha 3 format. Case insensitive.

Value

A `Nx17` tibble with airport details where `n` is the number of airports serving that city

Examples

```
city_airports("Vancouver")
city_airports("London")
city_airports("London","Canada")
city_airports("London","CA")
city_airports("London","CAN")
city_airports("London","124")
```

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