Package ‘sfo’

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Type Package

Title San Francisco International Airport Monthly Air Passengers

Version 0.1.2

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Description Provides monthly statistics on the number of monthly air passengers at SFO airport such as operating airline, terminal, geo, etc.

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Encoding UTF-8

LazyData true

Depends R (>= 2.10)

Suggests dplyr (>= 1.0.0), magrittr (>= 1.5), plotly (>= 4.9.2.1), knitr, rmarkdown, tidyr (>= 1.0.0)

RoxygenNote 7.1.2

VignetteBuilder knitr

NeedsCompilation no

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Sankey Plot with Plotly

Usage

\texttt{sankey\_ly(x, \texttt{cat\_cols}, \texttt{num\_col}, title = NULL)}

Arguments

- \texttt{x}: A data.frame input, must have at least two categorical columns and one numeric column
- \texttt{cat\_cols}: A vector of at least two categorical columns names
- \texttt{num\_col}: A single numeric column name
- \texttt{title}: Optional, string to pass to \texttt{plotly} layout title function

Details

A customized function for data transformation and plotting sankey plot with Plotly

Examples

```r
data("sfo\_passengers")
library(dplyr)
d <- sfo\_passengers %>%
  filter(activity\_period >= 202201 & activity\_period < 202301)
head(d)
d %>%
  filter(\texttt{operating\_airline} == "United Airlines") %>%
  mutate(\texttt{terminal} = ifelse(\texttt{terminal} == "International", "international", \texttt{terminal})) %>%
  group\_by(\texttt{operating\_airline}, \texttt{activity\_type\_code}, \texttt{geo\_summary}, \texttt{geo\_region}, \texttt{terminal}) %>%
  summarise(total = sum(\texttt{passenger\_count}), .\texttt{groups} = "drop") %>%
  sankey\_ly(cat\_cols = c("operating\_airline", "terminal", "geo\_summary", "geo\_region", "activity\_type\_code"),
             \texttt{num\_col} = "total",
             \texttt{title} = "Distribution of United Airlines Passengers at SFO During 2022")
```
Description

Monthly summary of number of passengers in San Francisco International Airport (SFO)

Usage

sfo_passengers

Format

A data frame with 12 variables.

activity_period  Activity year and month in YYYYMM format
operating_airline  Airline name for the aircraft operator
operating_airline_iata_code  The International Air Transport Association (IATA) two-letter designation for the Operating Airline
published_airline  Airline name that issues the ticket and books revenue for passenger activity
published_airline_iata_code  The International Air Transport Association (IATA) two-letter designation for the Published Airline
geo_summary  The flights’ classification by domestic for flights that arrived from or departed to a destination within the United States and international for destinations outside the United States
geo_region  The flight origin/destination geographic region details
activity_type_code  A description of the physical action a passenger took in relation to a flight, which includes boarding a flight (“enplanements”), getting off a flight (“deplanements”) and transiting to another location (“intransit”)
price_category_code  A categorization of whether a Published Airline is a low-cost carrier or not a low-cost carrier
terminal  The airport’s terminal designations at SFO where passenger activity took place
boarding_area  The airport’s boarding area designations at SFO where passenger activity took place
passenger_count  The number of monthly passengers associated with the above attribute fields

Details

The dataset contains the monthly summary of number of passengers in San Francisco International Airport (SFO)

Source

San Francisco data portal (DataSF) [website](https://www.sfgov.org/).
Examples

data(sfo_passengers)
require(dplyr)

# Get summary of total number of passengers by activity type
# in most recent month
sfo_passengers %>%
  filter(activity_period == max(activity_period)) %>%
  group_by(activity_type_code) %>%
  summarise(total = sum(passenger_count), .groups = "drop")

# Get summary of total number of passengers by
# activity type and geo region in most recent month
sfo_passengers %>%
  filter(activity_period == max(activity_period)) %>%
  group_by(activity_type_code, geo_region) %>%
  summarise(total = sum(passenger_count), .groups = "drop")

sfo_stats
SFO Airport Air Landings Statistics

Description

Monthly statistics on San Francisco International Airport (SFO) landings

Usage

sfo_stats

Format

A data frame with 14 variables.

activity_period Activity year and month in YYYYMM format
operating_airline Airline name for the aircraft operator
operating_airline_iata_code The International Air Transport Association (IATA) two-letter designation for the Operating Airline
published_airline Airline name that issues the ticket and books revenue for passenger activity
published_airline_iata_code The International Air Transport Association (IATA) two-letter designation for the Published Airline
geo_summary The flights’ classification by domestic for flights that arrived from or departed to a destination within the United States and international for destinations outside the United States
geo_region The flight origin/destination geographic region details
**landing_aircraft_type** A designation for three types of aircraft that landed at SFO, which includes passenger aircraft, cargo-only aircraft (“freighters”), or combination aircraft (“combi”).

**aircraft_body_type** A designation that is independent from Landing Aircraft Type, which determines whether commercial aircraft landed at SFO is a wide body-jet, narrow-body jet, regional-jet or a propeller operated aircraft.

**aircraft_manufacturer** Manufacturer name for the aircraft that landed at SFO.

**aircraft_model** Model designation of aircraft by the manufacturer.

**aircraft_version** Variations of the Aircraft Model, also known as the “dash number”, designated by the manufacturer to segregate unique versions of the same model.

**landing_count** The number of aircraft landings associated with General and Landings Statistics attribute fields.

**total_landed_weight** The aircraft landed weight (in pounds) associated with General and Landings Statistics attribute fields.

**Details**

The dataset contains the monthly statistics on the air traffic landings in San Francisco International Airport (SFO).

**Source**

San Francisco data portal (DataSF) website.

**Examples**

```r
data(sfo_stats)

require(dplyr)

# Get summary of total landing and weight by geo region
# in most recent month
sfo_stats %>%
    filter(activity_period == max(activity_period)) %>%
    group_by(geo_region) %>%
    summarise(total_landing = sum(landing_count),
              total_weight = sum(total_landed_weight),
              .groups = “drop”)
```
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