Package 'valleybike'

September 2, 2021

Title ValleyBike.org Utility Functions

Version 1.0.0

Description Utility functions to work with the ValleyBike.org data.

License GPL-2 | GPL-3

Encoding UTF-8

Imports dplyr,
emojifont,
geosphere,
ggmap,
ggplot2,
kableExtra,
knitr,
lubridate,
magrittr,
rmarkdown,
stats,
tidyr,
utils,
valleybikeData,
viridis

Remotes github::Amherst-Statistics/valleybikeData

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.1

Depends R (>= 2.10)

R topics documented:

get_distance *get_distance*

Description

Get trip distance

Usage

```
get_distance(route_id, unit = "meters")
```

Arguments

route_id	A trip's route ID (as a string).
unit	The measurement unit for the distance (one of: "meters", "kilometers", "feet", or "miles"). Defaults to "meters".

Details

Get the distance covered by a trip.

Value

The approximate distance covered by the trip (in the measurement unit specified).

Examples

```
## Not run:
get_distance("route_04_2019@01253ad9-cfb8-44a5-9218-bff8109e4880")

## End(Not run)
```

get_duration *get_duration*

Description

Get trip duration

Usage

```
get_duration(route_id, unit = "minutes")
```

Arguments

route_id	A trip's route ID (as a string).
unit	The measurement unit for the duration (one of: "seconds", "minutes", or "hours"). Defaults to "minutes".

Details

Get the duration of a trip.

Value

The approximate duration of the trip (in the measurement unit specified).

Examples

```
## Not run:
get_duration("route_04_2019@01253ad9-cfb8-44a5-9218-bff8109e4880")

## End(Not run)
```

`get_summary_report` *get_summary_report*

Description

Get summary report

Usage

```
get_summary_report(city, filename, path = ".", overwrite = FALSE)
```

Arguments

`city`	The city for which to generate the summary report (as a string). Can be one of: "Amherst", "Springfield", "Easthampton", "Northampton", "Holyoke", or "South Hadley".
`filename`	The file name to use for the generated .pdf report.
`path`	The path where to save the generated report.
`overwrite`	Whether to overwrite any existing file with the same name at the specified path. TRUE will overwrite existing files, FALSE will leave existing files alone and issue an error. Defaults to FALSE.

Details

Generate a .pdf summary report for a city in which ValleyBike is active.

Examples

```
## Not run:
get_summary_report(city = "Amherst", filename = "amherst-report.pdf")

## End(Not run)
```

get_trajectory_data *get_trajectory_data*

Description

Get trajectory data

Usage

```
get_trajectory_data(route_id)
```

Arguments

route_id	A trip's route ID (as a string).

Details

Get the point-by-point trajectory data for a trip.

Value

A data frame of trajectory data for the given route ID.

Examples

```
## Not run:
get_trajectory_data("route_07_2018@44bde968-5454-4db2-a4b1-a32493186f82")

## End(Not run)
```

identify_trips *identify_trips*

Description

Identify trips

Usage

```
identify_trips(date = NULL, start_station = NULL, end_station = NULL)
```

Arguments

date	The date that the trip was undertaken (as a YYYY-MM-DD string).
start_station	The start station of the trip (as a string).
end_station	The end station of the trip (as a string).

Details

Identify the route IDs of specific trips using information about the date they were undertaken, the start station, and/or the end station. One can provide only one or all of the arguments.

Value

A vector of route IDs that match the specified search criteria.

Examples

```
## Not run:
identify_trips(date = "2019-07-12", start_station = "Amherst Town Hall")

## End(Not run)
```

`plot_trip` *plot_trip*

Description

Plot trip

Usage

```
plot_trip(route_id, api_key, layers, ...)
```

Arguments

`route_id`	A trip's route ID (as a string).
`api_key`	A Google Maps API key to pass to `ggmap::register_google` (required).
`layers`	Any additional ggplot2 layers to add to the plot, such as titles, themes, etc.
`...`	Arguments to pass to `ggmap::get_map` for customizing the map background, such as `zoom`, `maptype`, `source`, `color`, etc.

Details

Plot the trajectory of a trip on the map.

Value

A ggplot2 plot object of the trip's trajectory on the map.

Examples

```
## Not run:
plot_trip("route_04_2019@01253ad9-cfb8-44a5-9218-bff8109e4880", zoom = 16,
        layers = ggplot2::ggtitle("Trajectory of 01253ad9-cfb8-44a5-9218-bff8109e4880"))

## End(Not run)
```

`weekend_or_holiday` *weekend_or_holiday*

Description

Weekend or holiday

Usage

```
weekend_or_holiday(route_id)
```

Arguments

`route_id`	A trip's route ID (as a string).

Details

Determines whether a trip was undertaken on a weekend or on a federal holiday.

Value

TRUE if the trip was undertaken on a weekend or federal holiday, FALSE otherwise.

Examples

```
## Not run:
weekend_or_holiday("route_04_2019@01253ad9-cfb8-44a5-9218-bff8109e4880")

## End(Not run)
```

`weekend_or_holiday_trips` *weekend_or_holiday_trips*

Description

Number of weekend or holiday trips

Usage

```
weekend_or_holiday_trips(user_id)
```

Arguments

`user_id`	A user's ID (as a string).

Details

Determines the number of trips by a specific user that were undertaken on a weekend or on a federal holiday.

Value

TRUE if the trip was undertaken on a weekend or federal holiday, FALSE otherwise.

Examples

```
## Not run:
weekend_or_holiday_trips("1cc1e858-857a-4f80-96e8-974f0e920620")

## End(Not run)
```

Index