Package ‘covid19india’

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Type Package
Title Pulling Clean Data from Covid19india.org
Version 0.1.4
Description Pull raw and pre-cleaned versions of national and state-level COVID-19 time-series data from covid19india.org <https://www.covid19india.org>. Easily obtain and merge case count data, testing data, and vaccine data. Also assists in calculating the time-varying effective reproduction number with sensible parameters for COVID-19.

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Author Max Salvatore [aut, cre], Michael Kleinsasser [aut]
Maintainer Max Salvatore <mmsalva@umich.edu>
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check_for_data_correction

Check for data corrections of X-times magnitude - data.table style

Description

Check for data corrections of X-times magnitude - data.table style

Usage

check_for_data_correction(
  dat,
  var = "daily_cases",
  magnitude = 10,
  min_count = 10
)

Arguments

dat data set

var variable for which to check for corrections. Default is "daily_cases"

magnitude magnitude of difference that qualifies as a data correction. Default is 10.

min_count minimum count of var. Default is 10.

Value

Data set with data correction observations removed

Examples

## Not run:
check_for_data_correction(dat = get_nat_counts, var = "daily_cases", magnitude = 10)

## End(Not run)
extract_latest

Helper function

Description

Helper function

Usage

extract_latest(dat, group = place, clmns = c("total_tests", "tpr", "ppt"))

Arguments

dat data set
group place variable
clmns columns to be extracted

Value

Data set of recent observations of selected variables

Examples

## Not run:
extract_latest(dat = get_all_data())

## End(Not run)

get_all_data

Pull all covid19india count, test, and vaccine data for states and nation

Description

Pull all covid19india count, test, and vaccine data for states and nation

Usage

get_all_data(keep_nat = TRUE, covind19_name_scheme = FALSE, corr_check = TRUE)

Arguments

keep_nat Keep the national data as well. Default is FALSE
covind19_name_scheme Variable naming scheme used for development of covind19.org application
corr_check Check for data corrections of X-times magnitude. Default is TRUE
Value

Pulls the district-level time-series case, death, and recovered data directly from covid19india.org.

Examples

```r
## Not run:
get_all_data()

## End(Not run)
```

---

**get_cfr**

*Calculate case-fatality rate*

Description

Calculate case-fatality rate

Usage

```r
get_cfr(x)
```

Arguments

- `x` Input dataset. Expects `total_cases` and `total_deaths` variables

Value

Calculates a case-fatality rate estimate and corresponding 95% confidence interval

Examples

```r
## Not run:
get_cfr(x = get_nat_counts())

## End(Not run)
```
**get_district_counts**  
Pull `covid19india` district-level data

**Description**
Pull `covid19india` district-level data

**Usage**
```r
get_district_counts(
  path = "https://api.covid19india.org/csv/latest/districts.csv",
  raw = FALSE
)
```

**Arguments**
- **path**  
The URL path for the data. Default: `https://api.covid19india.org/csv/latest/districts.csv`
- **raw**  
Pull raw unaltered data. Default is `FALSE`

**Value**
Pulls the district-level time-series case, death, and recovered data directly from covid19india.org.

**Examples**
```r
## Not run:
get_district_counts()
## End(Not run)
```

---

**get_metrics_tables**  
Create metrics tables

**Description**
Create metrics tables

**Usage**
```r
get_metrics_tables(seed = 46342, top20 = NULL, corr_check = TRUE)
```

**Arguments**
- **seed**  
set seed
- **top20**  
Vector of state abbreviations for top 20 table
- **corr_check**  
Check for data corrections of X-times magnitude. Default is `TRUE`
Value

Creates metrics tables for use in covind19.org

Examples

```r
## Not run:
tabs <- get_metrics_tables()
tabs$full
## End(Not run)
```

---

**get_nat_counts**

_pull covid19india national time series data_*

**Description**

Pull covid19india national time series data

**Usage**

```r
get_nat_counts(
  path = "https://api.covid19india.org/csv/latest/case_time_series.csv",
  raw = FALSE,
  corr_check = FALSE
)
```

**Arguments**

- `path` The URL path for the data. Default: https://api.covid19india.org/csv/latest/case_time_series.csv
- `raw` Pull raw unaltered data. Default is FALSE
- `corr_check` Check for data correction. Default is FALSE

**Value**

Pulls the time-series case, death, and recovered data directly from covid19india.org.

**Examples**

```r
## Not run:
get_nat_counts_dt()
## End(Not run)
```
get_nat_tests

Pull covid19india national time series test data

Description

Pull covid19india national time series test data

Usage

get_nat_tests(  
  path = "https://data.covid19india.org/csv/latest/tested_numbers_icmr_data.csv",  
  raw = FALSE  
)

Arguments

path The URL path for the data. Default: https://api.covid19india.org/data.json
raw Pull raw unaltered data. Default is FALSE

Value

Pulls the time-series test data directly from covid19india.org.

Examples

## Not run:
get_nat_tests()  
## End(Not run)

get_r0

Calculate r0

Description

Calculate r0

Usage

get_r0(  
  dat,  
  daily_filter = 0,  
  total_filter = 50,  
  min_date = "2020-03-23",  
  corr_check = FALSE  
)
 Arguments

dat          Input dataset. Expects daily_cases, total_cases, and place columns
daily_filter Threshold for minimum daily cases. Default = 0.
total_filter Threshold for minimum total cases reported to date. Default = 50.
min_date     Threshold for earliest date to report R. Default = "2020-03-23".
corr_check   Check for data corrections of X-times magnitude. Default is FALSE

Value
Pulls the time-series state-level testing data directly from covid19india.org. Expects columns named place, daily_cases, and total_cases. Can specify corresponding variables through other arguments.

Examples
## Not run:
get_r0(dat = get_nat_counts())
## End(Not run)

---

get_r_est  

 Helper function for pulling latest R estimates

Description
Helper function for pulling latest R estimates

Usage
get_r_est(x)

Arguments
x    data set containing R estimates

Value
Pulls 7-day trailing average R estimates and 95% confidence intervals

Examples
## Not run:
get_r_est(x = get_all_data())
## End(Not run)
get_state_counts

Pull covid19india state

Description
Pull covid19india state

Usage
```
get_state_counts(
  path = "https://api.covid19india.org/csv/latest/state_wise_daily.csv",
  raw = FALSE,
  keep_nat = FALSE,
  corr_check = FALSE
)
```

Arguments
- **path**: The URL path for the data. Default: `https://api.covid19india.org/csv/latest/state_wise_daily.csv`
- **raw**: Pull raw unaltered data. Default is `FALSE`
- **keep_nat**: Keep the national data as well. Default is `FALSE`
- **corr_check**: Check for data correction. Default is `FALSE`

Value
Pulls the time-series case, death, and recovered data directly from covid19india.org.

Examples
```
## Not run:
get_state_counts()
## End(Not run)
```

get_state_tests

Pull covid19india state-level testing data

Description
Pull covid19india state-level testing data

Usage
```
get_state_tests(
  path = "https://api.covid19india.org/csv/latest/statewise_tested_numbers_data.csv",
  raw = FALSE
)
```

get_state_vax

Arguments

path The URL path for the data. Default: https://api.covid19india.org/csv/latest/statewise_tested_numbers_data.csv
raw Pull raw unaltered data. Default is FALSE

Value

Pulls the time-series state-level testing data directly from covid19india.org.

Examples

```r
## Not run:
get_state_tests()
## End(Not run)
```

get_state_vax Pull covid19india state-level vaccine data

Description

Pull covid19india state-level vaccine data

Usage

```r
get_state_vax(
  path = "https://api.covid19india.org/csv/latest/vaccine_doses_statewise_v2.csv",
  raw = FALSE,
  keep_nat = TRUE
)
```

Arguments

path The URL path for the data. Default: https://api.covid19india.org/csv/latest/vaccine_doses_statewise_v2.csv
raw Pull raw unaltered data. Default is FALSE
keep_nat Keep national level data? Default is TRUE

Value

Pulls the time-series state-level vaccine data directly from covid19india.org.

Examples

```r
## Not run:
get_state_vax()
## End(Not run)
```
Description

This data set contains the names of states and union territories in India along with their respective abbreviations and populations. The population of India is also given. These are 2019 projections as reported in the Unique Identification Authority of India 2019-2020 Annual Report.

Usage

pop

Format

A data frame with 39 rows and 3 variables: place, abbrev, population

- **place**: The name of the place
- **abbrev**: The abbreviations corresponding to place
- **population**: The population size

References

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