Package ‘covid19india’

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.

URL https://github.com/maxsal/covid19india
BugReports https://github.com/maxsal/covid19india/issues
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Encoding UTF-8
LazyData true
RoxygenNote 7.1.2
Imports data.table (>= 1.14.1), EpiEstim, cli, gt, httr, glue, janitor, scales, stringr, magrittr
Depends R (>= 3.6)
NeedsCompilation no
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Repository CRAN
Date/Publication 2021-10-09 15:00:30 UTC

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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**

```r
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**

```r
## 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**

```r
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` Function

**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`
get_nat_counts

Value

Creates metrics tables for use in covind19.org

Examples

## 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

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

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

Pull covid19india national time series test data

### Usage

```r
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

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

---

**get_r0**

Calculate r0

### Usage

```r
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_0. 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

```r
## 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

```r
get_r_est(x)
```

Arguments

- `x` data set containing R estimates

Value

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

Examples

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

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

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

get_state_tests

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:
going_state_tests()
```

---

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:
going_state_vax()
```

```r
## End(Not run)
```
**pop**

---

**List of places, abbreviations, and populations in India**

**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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