

Package ‘annna’

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Type Package

Title Open FDA Developer Challenge R Helper Package

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Depends R (>= 3.5)

Imports httr, tibble, dplyr, ggplot2, scales, jsonlite, tidyr, date,
devtools

Description Fill out later.

License GPL-2

RoxygenNote 6.1.1

Encoding UTF-8

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

NeedsCompilation no

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getEventCounts	<i>Allow users to analyze Open FDA Drug Adverse Events</i>
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Description

Allow users to look at a table relating to drug adverse events and patient information

Usage

```
getEventCounts(drugs_and_events)
```

Arguments

drugs_and_events
the dataframe returned by queryOpenFDA

Value

a dataframe with columns date and unique_date_events on that date

Examples

```
drugs_and_events <- queryAdverseEvents(limit=10)
getEventCounts(drugs_and_events)
```

plotDrugAdverseEvents	<i>Allow users to visualize drug information against selected variable.</i>
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Description

Allow users to request to plot a drug against a patient demographic variable

Usage

```
plotDrugAdverseEvents(drugs_and_events, drug_of_interest = "LETAIRIS",
  variable_of_interest)
```

Arguments

drugs_and_events
the dataframe that is returned from calling queryOpenFDA in queryOpenFDA.R

drug_of_interest
a drug of interest for the user, must be one of the drugs within the drugs_and_events dataframe

variable_of_interest
the variable of interest to plot from the columns of drugs_and_events dataframe. Should be one of: c("age", "sex", "reaction", "date")

Value

a ggplot with the variable of interest as the x axis and the count of that variable for a specific drug on the y axis.

Examples

```
drugs_and_events <- queryAdverseEvents(limit = 101)
plotDrugAdverseEvents(drugs_and_events, "LETAIRIS", "age")
```

plotEventCounts	<i>Allow users to analyze Open FDA Drug Adverse Events data over time.</i>
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Description

Plot number of drug events over time.

Usage

```
plotEventCounts(drugs_and_events)
```

Arguments

drugs_and_events
the dataframe returned by queryAdverseEvents

Value

a ggplot with the date as the x axis and events on date as the y axis

Examples

```
drugs_and_events <- queryAdverseEvents(limit=10)
plotEventCounts(drugs_and_events)
```

plotTopTenDrugs	<i>Allow users to analyze Open FDA Drug Adverse Events data over time.</i>
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Description

Plot number top 10 drug events over time.

Usage

```
plotTopTenDrugs(drugs_and_events)
```

Arguments

drugs_and_events
the dataframe returned by queryAdverseEvents

Value

a ggplot with the date as the x axis and events on date as the y axis with colors for the top ten drugs

Examples

```
drugs_and_events <- queryAdverseEvents(limit=10)
plotTopTenDrugs(drugs_and_events)
```

queryAdverseEvents	<i>Allow users to query Open FDA Drug Adverse Events</i>
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Description

Allow users to query for a given number of result objects that represent a set of Open FDA Drug Adverse Events. The example function returns a tidy dataframe with drugs and events.

Usage

```
queryAdverseEvents(limit = 1, date_start = NULL, date_end = NULL)
```

Arguments

limit	the number of adverse events to return
date_start	the date for which you want the adverse events to start in format YYYYMMDD
date_end	the date for which you want the adverse events to stop in format YYYYMMDD Both date_start and date_end must be supplied if one is supplied, but both are optional.

Value

a dataframe with drug and adverse information for the number of results Columns include: id, sex, age, drug, drug indication, date and reaction.

Examples

```
queryAdverseEvents(limit = 101)
queryAdverseEvents(limit=10, date_start="20050101", date_end="20060101")
```

queryOpenFDA	<i>Allow users to query Open FDA Drug Adverse Events</i>
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Description

Allow users to query for a given number of result objects that represent a set of Open FDA Drug Adverse Events. The example function returns a tidy dataframe with drugs and events.

Usage

```
queryOpenFDA(limit = 1, skip = 0, event_or_enforcement = c("event",
  "enforcement"), date_start = NULL, date_end = NULL)
```

Arguments

limit	the number of adverse events to return
skip	the number of entries to skip before returning results
event_or_enforcement	query open fda for either drug adverse events or recall information.
date_start	date in format YYYYMMDD for which to start retrieving reports
date_end	date in format YYYYMMDD for which to end retrieving reports

If date end is before date start then json response will contain an error. Both dates must be specified if returning results within a date range is desired.

Value

a list with the entire response.

Examples

```
queryOpenFDA(limit = 1, skip = 0, event_or_enforcement = "enforcement")
queryOpenFDA(date_start = "20040101", date_end = "20131231")
```

queryRecalls	<i>Allow users to query Open FDA Drug Recall Information</i>
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Description

Allow users to query for a given number of result objects that represent a set of Drug Recall Information. The example function returns a tidy dataframe with recall information.

Usage

```
queryRecalls(limit = 1, date_start = NULL, date_end = NULL)
```

Arguments

<code>limit</code>	the number of recall information events to return
<code>date_start</code>	the date for which you want the adverse events to start in format YYYYMMDD
<code>date_end</code>	the date for which you want the adverse events to stop in format YYYYMMDD Both <code>date_start</code> and <code>date_end</code> must be supplied if one is supplied, but both are optional.

Value

a dataframe with id, date, reason, product description, and classification

Examples

```
queryRecalls(limit = 10)
queryRecalls(limit=10, date_start="20050101", date_end="20060101")
```

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