Package: dhis2r (via r-universe)

October 30, 2024

Title Client for the 'DHIS2' Web API

Version 0.1.1

Description Connect and pull data from a 'DHIS2 (District Health Information Software 2)' instance into R.

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URL https://github.com/amanyiraho/dhis2r

BugReports https://github.com/amanyiraho/dhis2r/issues

Imports attempt (>= 0.3.1), curl (>= 4.3.3), dplyr (>= 1.0.10), httr2 (>= 0.2.2), R6 (>= 2.5.1)

Suggests covr, knitr, rmarkdown, testthat

Depends R (>= 4.1.0)

Encoding UTF-8

VignetteBuilder knitr

RoxygenNote 7.3.1

LazyData true

Repository https://amanyiraho.r-universe.dev

RemoteUrl https://github.com/amanyiraho/dhis2r

RemoteRef HEAD

RemoteSha a43e256c8b2167d1d88243b5eefd402068986008

Contents

Dhis2r *Connect and pull/get data from a DHIS2 instance*

Description

To create a DHIS2 connection, you need a DHIS2 base URL, username, password, and an API version The R6 Class called 'Dhis2r' representing a DHIS2 instance connection

Format

An R6 class called Dhis2r.

Details

You can use a DHIS2 instance connection to get data several times without needing to manually supply your user credentials on each API call.

Public fields

`request_sent` The request used to perform an API call

`name` Name of the user

`access_rights` The access rights the user has on the DHIS2 instance

`account_info` Information of the logged account credentials

Methods

Public methods:

- `Dhis2r$new()`
- `Dhis2r$get_user_info()`
- `Dhis2r$get_metadata()`
- `Dhis2r$get_metadata_fields()`
- `Dhis2r$get_analytics()`
- `Dhis2r$get_any_analytic()`
- `Dhis2r$clone()`

Method `new()`**:** Create a connection to a DHIS2 instance using basic authentication

Usage:

```
Dhis2r$new(
  base_url,
  username = NULL,
  password = NULL,
  api_token = NULL,
  api_version = NULL,
  api_version_position = c("after", "before")
)
```

Arguments:

`base_url` Base url e.g https://play.dhis2.org/

`username` Registered username e.g "admin"

`password` Registered password e.g "district"

`api_token` Personal Access Token (PAT) to use instead of username and password

`api_version` The api version e.g "33"

`api_version_position` position where the api_version is after or before in web API url i.e /api/

Returns: A new ‘Dhis2r‘ object

Method `get_user_info()`**:** Get information of the logged in user

Usage:

```
Dhis2r$get_user_info()
```

Returns: A vector

Method `get_metadata()`**:** Get metadata about any available resource from a DHIS2 instance e.g "dataElements", "organisationUnits", "indicators", "periodTypes"

Usage:

```
Dhis2r$get_metadata(endpoint = NULL, fields = c("name", "id"))
```

Arguments:

`endpoint` a resource, get the available resources using ‘get_metadata()‘ without any arguments

`fields` The specific columns to be return in the dataframe e.g c("name","id")

Returns: A data frame

Method `get_metadata_fields()`**:** Get all possible fields for a specific metadata resource from a DHIS2 instance

Usage:

```
Dhis2r$get_metadata_fields(endpoint)
```

Arguments:

`endpoint` a resource, get the available resources using ‘get_metadata()‘ without any arguments

Returns: A vector of all possible fields for a specific metadata

Method `get_analytics()`**:** Get all possible analytics resources from a DHIS2 instance i.e

Usage:

```
Dhis2r$get_analytics(
  analytic,
  org_unit,
  period,
  output_scheme = c("UID", "NAME")
)
```

Arguments:

`analytic` vector of ID of specific analytic(s) from a DHIS2 instance

`org_unit` vector of ID of specific organisation unit(s) from a DHIS2 instance

`period` vector of relative or fixed periods from a DHIS2 instance

`output_scheme` Output type ID or Names of fields

Returns: A data frame of the analytics resource

Method `get_any_analytic()`**:** Get all any analytics resource from a DHIS2 instance to cater for long DHIS2 favorites

Usage:

```
Dhis2r$get_any_analytic(endpoint_url)
```

Arguments:

`endpoint_url` string part of Analytic(s) from a DHIS2 instance api endpoint starting from 'analytics.json?dimension='

Returns: A data frame of the analytics resource

Method `clone()`**:** The objects of this class are cloneable with this method.

Usage:

```
Dhis2r$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
## Not run:
# connect to the DHIS2 instance
dhis2_play_connection <- Dhis2r$new(base_url = "https://play.dhis2.org/",
 username = "admin",  password = "district",api_version = "2.39.0.1")

# get all the available resources
dhis2_play_connection$get_metadata()

# get organisation Units with the default fields i.e c("name","id")

dhis2_play_connection$get_metadata(endpoint = "organisationUnits")

# get a vector of all possible fields of a organisation unit resource
dhis2_play_connection$get_metadata_fields(endpoint = "organisationUnits")

# get organisation Units with additional fields i.e c("name","id", "level")

dhis2_play_connection$get_metadata(endpoint = "organisationUnits",
fields =  c("name","id", "level"))

dhis2_play_connection$get_analytics(analytic = c("Uvn6LCg7dVU"),
org_unit =   c("O6uvpzGd5pu", "fdc6uOvgoji"),
period = "LAST_12_MONTHS",
 output_scheme = "NAME")


## End(Not run)
```

`relative_periods` *Relative periods in DHIS2*

Description

The relative periods are relative to the current date and allow e.g. for creating dynamic reports

Usage

```
data(relative_periods)
```

Format

A data frame with 30 rows and 2 columns:

period_type Period type

period Relative period to be used

Source

"https://docs.dhis2.org/en/develop/using-the-api/dhis-core-version-239/introduction.html"

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