

Package ‘ReviewR’

October 12, 2022

Title A Light-Weight, Portable Tool for Reviewing Individual Patient Records

Version 2.3.8

Description A portable Shiny tool to explore patient-level electronic health record data and perform chart review in a single integrated framework. This tool supports browsing clinical data in many different formats including multiple versions of the 'OMOP' common data model as well as the 'MIMIC-III' data model. In addition, chart review information is captured and stored securely via the Shiny interface in a 'REDCap' (Research Electronic Data Capture) project using the 'REDCap' API. See the 'ReviewR' website for additional information, documentation, and examples.

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URL <https://reviewr.thewileylab.org/>,
<https://github.com/thewileylab/ReviewR/>

BugReports <https://github.com/thewileylab/ReviewR/issues>

Depends R (>= 3.5.0)

Imports bigrquery (>= 1.2.0), config, dashboardthemes, DBI, dbplyr, dplyr (>= 1.0.0), DT, gargle, glue, golem, httr, jsonlite, magrittr, purrr, redcapAPI, REDCapR, rlang (>= 0.4.7), RPostgres, RSQLite, shiny (>= 1.5.0), shinycssloaders (>= 1.0.0), shinydashboard, shinydashboardPlus (>= 2.0.0), shinyjs, shinyWidgets (>= 0.6.0), snakecase, stringr, tibble, tidyr (>= 1.1.0)

Suggests fs, gt, here, htmltools, knitr, pkgload, processx, readr, rmarkdown, rstudioapi, spelling, testthat (>= 2.1.0), usethis

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NeedsCompilation no

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db_function_all_patients_table_template
Database Table Function: All Patients Table Template

Description

A character vector containing a function template for creating the 'All Patients' table as displayed on the "Patient Search" Tab

Usage

```
db_function_all_patients_table_template
```

Format

A character vector with 22 elements

See Also

Other Development Templates: [db_function_subject_table_template](#), [db_module_template](#)

db_function_subject_table_template

Database Table Function: Subject Table Template

Description

A character vector containing a function template for creating the 'Subject Filtered' tables as displayed on the "Chart Review" Tab

Usage

db_function_subject_table_template

Format

A character vector with 15 elements

See Also

Other Development Templates: [db_function_all_patients_table_template](#), [db_module_template](#)

db_module_template

Database Module Template

Description

A character vector containing a database module template

Usage

db_module_template

Format

A character vector with 52 elements

See Also

Other Development Templates: [db_function_all_patients_table_template](#), [db_function_subject_table_template](#)

dev_add_database_module

Develop A Database Module

Description

This function will create a database module skeleton with required elements already populated, based on user inputs. Common database module packages are imported automatically, but developers should add imports to the roxygen skeleton as necessary to both the UI and server functions to collect user info and create a DBI connection object, respectively.

Usage

```
dev_add_database_module(mod_name = NULL, display_name = NULL)
```

Arguments

mod_name	<i>Required.</i> A string, denoting the module suffix eg: 'mariadb'
display_name	<i>Required.</i> A string, denoting the module display name eg: 'MariaDB Server'. This is the 'user viewable' name that will appear in the database module selector dropdown.

Value

A .R file populated with a database module skeleton

See Also

Other Development Functions: [dev_add_data_model\(\)](#)

dev_add_data_model

Develop Data Model Table Functions

Description

This function will assist in adding support for a new data model to ReviewR. A schema file, supplied as a CSV, will be added to the package namespace such that upon connection to a database containing the new data model, ReviewR can identify and display it through the database detection module.

Users will be prompted to identify which table in the new data model contains a list of all patients. Additionally, users will be asked to select which field uniquely identifies each patient. This field *must* be present across all tables in the new data model for best results.

Once selections are captured, a database_tables.R file will be populated and opened for editing in RStudio. Basic table skeletons are created based on the provided schema and user selections.

Note: If the identifier field is not present across all tables, care must be taken to adjust the database_tables.R file to appropriately represent the new data model structure.

Usage

```
dev_add_data_model(csv)
```

Arguments

csv *Required.* The file path of a CSV file containing a data model schema

Value

A .R file populated with basic database table functions

See Also

Other Development Functions: [dev_add_database_module\(\)](#)

redcap_survey_complete

REDCap Survey Complete

Description

A dataset containing valid REDCap "Survey Complete" Values.

Usage

```
redcap_survey_complete
```

Format

A data frame with 2 rows and 2 variables:

redcap_survey_complete_names The human readable "Survey Complete" Responses

redcap_survey_complete_values REDCap API values for "Survey Complete" Responses ...

redcap_widget_map	<i>REDCap Widget Map</i>
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Description

A dataset that maps REDCap question types and common validations to native shiny widgets through custom functions.

Usage

```
redcap_widget_map
```

Format

A data frame with 9 rows and 3 variables:

redcap_field_type A REDCap Question Type

redcap_field_validation Custom REDCap Question Type Validation

shinyREDCap_widget_function shinyREDCap function to use when mapping to native Shiny widget ...

ReviewR	<i>ReviewR: A light-weight, portable tool for reviewing individual patient records</i>
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Description

ReviewR is a portable Shiny tool to help you explore data across different data models. Within ReviewR, you can browse patient data stored in either the OMOP or MIMIC-III data model. In addition to viewing patient data, you may also connect to a REDCap project to perform a chart review.

run_app

*Run Application***Description**

Start the ReviewR Application in a browser on port 1410.

```

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      \ /      \ /      \ /      \ /
                                     by WileyLab

```

Making manual record review fun since 2019!

authors: Laura Wiley, Luke Rasmussen, David Mayer

Usage

```
run_app(...)
```

Arguments

... A list of options to pass to the app including:

- secrets_json: A string, containing a file path to a Google OAuth 2.0 Client ID JSON

Value

No return value, called to start the ReviewR Shiny Application!

supported_data_models *Supported Data Model Schemas*

Description

A dataset containing data model information along with the corresponding version and nested schema information.

Usage

```
supported_data_models
```

Format

A data frame with 12 rows and 4 variables:

data_model Data model name

model_version Version of the data model

data Nested database schemas, including included table and field mappings

file_path Where schema was imported from ...

Source

<https://github.com/OHDSI/CommonDataModel/>

<https://github.com/MIT-LCP/mimic-code>

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