Package 'DQAgui'

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Title Graphical User Interface for Data Quality Assessment

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```
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 $button_send_datamap \qquad button_send_datamap$

Description

This function is an exported wrapper around the actual function to send the datamap. This actual function can be customized by the user.

Usage

button_send_datamap(rv)

Arguments

rv The global rv object. rv\$datamap needs to be valid.

Value

This functions is used to trigger logic when clicking the "Send Datamap" button on the dash-board (default: triggers the composing of an email by making use of the java-script command window.open('mailto: ...')). When customizing DQAgui, the function button_send_datamap can be overwritten in the namespace to trigger any other logic, wanted by the user.

Examples

```
if (interactive()) {
  button_send_datamap(rv=rv)
}
```

check_load_data_button

Evaluates whether the load-data button needs to be shown or not.

Description

If there is a valid source system and a valid target system (this is also the case if the user set target == source), the result of this function will be TRUE and the button will be displayed via shinyjs. Otherwise the result is FALSE and the button will be hidden. This function also displays (or hides) the variables which can be assessed.

Usage

```
check_load_data_button(rv, session)
```

Arguments

rv	The global 'reactive Values()' object, defined in server.R
session	Shiny session object

feedback_txt This function is used in the config-tab and displays the selected system to the user.

Description

This function is used in the config-tab and displays the selected system to the user.

```
feedback_txt(system, type)
```

get_db_settings

Arguments

```
system (String) e.g. "i2b2", "OMOP" or "CSV" type (String) "source" or "target"
```

Value

String containing the input params in a propper manner

```
get_db_settings get_db_settings
```

Description

```
get_db_settings
```

Usage

```
get_db_settings(input, target = TRUE, db_type, displayname_gui, rv)
```

Arguments

```
input Shiny server input object.

target A boolean (default: TRUE).

db_type (String) "postgres" or "oracle".

displayname_gui (String) "i2b2 (Prod)"

rv The global 'reactive Values()' object, defined in server.R
```

Value

This functions returns a data table of key-value pairs for the database settings, which are parsed from the respective config tab from the shiny application.

```
if (interactive()) {
  get_db_settings(
   input = input,
   target = TRUE,
   db_type = "postgres"
)
}
```

launch_app 5

launch_app	Launch the DQA graphical user interface (GUI)
------------	---

Description

Launch the DQA graphical user interface (GUI)

Usage

```
launch_app(
  port = 3838,
  utils_path = system.file("demo_data/utilities", package = "DQAstats"),
  mdr_filename = "mdr_example_data.csv",
  logfile_dir = tempdir(),
  parallel = FALSE,
  ncores = 2,
  demo_usage = FALSE
)
```

Arguments

port	The port, the MIRACUM DQA Tool is running on (default: 3838)
utils_path	The path to the utilities-folder, containing the metadata repository files (mdr.csv inside the folder MDR), JSON files with SQL statements (inside the folder SQL), config files for the database connection (settings_default.yml) and the email address used for the data map (email.yml), a JSON file containing site names (inside the folder MISC) and a markdown template to create the PDF report (DQA_report.Rmd inside the folder RMD).
mdr_filename	The filename of the mdr (e.g. "mdr_example_data.csv").
logfile_dir	Is the absolute path to the directory where the logfile will be stored. If not path is provided the tempdir() will be used.
parallel	A boolean. If TRUE, initializing a future::plan() for running the code (default: FALSE).
ncores	A integer. The number of cores to use. Caution: you would probably like to choose a low number when operating on large datasets. Default: 2.
demo_usage	A boolean. If TRUE, a box is shown on the dashboard with further instructions on how to use / configure the tool.

Value

Executing this function returns a DQAgui shiny application.

Examples

```
if (interactive()) {
  launch_app()
}
```

Description

```
module_atemp_pl_server
```

Usage

```
module_atemp_pl_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_atemp_pl_server,
   "moduleAtemporalPlausibilities",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

module_atemp_pl_ui 7

Description

```
module_atemp_pl_ui
```

Usage

```
module_atemp_pl_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
module\_completeness\_server \\ module\_completeness\_server
```

Description

```
module_completeness_server
```

```
module_completeness_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
  module_completeness_server,
  "moduleCompleteness",
  rv = rv,
  input_re = reactive(input)
)
}</pre>
```

```
module_completeness_ui
```

 $module_completeness_ui$

Description

```
module_completeness_ui
```

Usage

```
module_completeness_ui(id)
```

Arguments

id A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

module_config_server

See Also

https://shiny.rstudio.com/articles/modules.html

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Examples

module_config_server
 module_config_server

Description

module_config_server

Usage

```
module_config_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

https://shiny.rstudio.com/articles/modules.html

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Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
  module_config_server,
  "moduleConfig",
  rv = rv,
  input_re = reactive(input)
)
}</pre>
```

module_config_ui

module_config_ui

Description

module_config_ui

Usage

```
module_config_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

```
module_dashboard_server
```

 $module_dashboard_server$

Description

```
module\_dashboard\_server
```

Usage

```
module_dashboard_server(input, output, session, rv, input_re)
```

Arguments

input	Shiny server input object
output	Shiny server output object
session	Shiny session object
rv	The global 'reactiveValues()' object, defined in server.R
input_re	The Shiny server input object, wrapped into a reactive expression: input_re = reactive({input})

Value

The function returns a shiny server module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_dashboard_server,
   "moduleDashboard",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

```
module_dashboard_ui
module_dashboard_ui
```

Description

```
module_dashboard_ui
```

Usage

```
module_dashboard_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
module\_descriptive\_server \\ module\_descriptive\_server
```

Description

```
module_descriptive_server
```

```
module_descriptive_server(input, output, session, rv, input_re)
```

module_descriptive_ui

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Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_descriptive_server,
   "moduleDescriptive",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

module_descriptive_ui module_descriptive_ui

Description

```
module_descriptive_ui
```

Usage

```
module_descriptive_ui(id)
```

Arguments

id A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
module\_differences\_server \\ module\_differences\_server
```

Description

```
module_differences_server
```

Usage

```
module_differences_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

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Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_differences_server,
   "moduleDifferences",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

 $module_differences_ui \quad module_differences_ui$

Description

module_differences_ui

Usage

```
module_differences_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

module_log_server

module_log_server

module_log_server

Description

```
module_log_server
```

Usage

```
module_log_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

https://shiny.rstudio.com/articles/modules.html

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_log_server,
   "moduleLogging",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

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module_log_ui

module_log_ui

Description

```
module_log_ui
```

Usage

```
module_log_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

Examples

module_mdr_server

module_mdr_server

Description

```
module_mdr_server
```

```
module_mdr_server(input, output, session, rv, input_re)
```

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Arguments

reactive({input})

Value

The function returns a shiny server module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_mdr_server,
   "moduleMDR",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

module_mdr_ui

module_mdr_ui

Description

```
module_mdr_ui
```

Usage

```
module_mdr_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

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See Also

https://shiny.rstudio.com/articles/modules.html

Examples

module_report_server module_report_server

Description

```
module_report_server
```

Usage

```
module_report_server(input, output, session, rv, input_re)
```

Arguments

input Shiny server input object output Shiny server output object session Shiny session object

rv The global 'reactive Values()' object, defined in server.R

input_re The Shiny server input object, wrapped into a reactive expression: input_re =

reactive({input})

Value

The function returns a shiny server module.

See Also

https://shiny.rstudio.com/articles/modules.html

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Examples

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_report_server,
   "moduleReport",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

module_report_ui

module_report_ui

Description

```
module_report_ui
```

Usage

```
module_report_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

Description

```
module_uniq_plaus_server
```

Usage

```
module_uniq_plaus_server(input, output, session, rv, input_re)
```

Arguments

input	Shiny server input object
output	Shiny server output object
session	Shiny session object
rv	The global 'reactiveValues()' object, defined in server.R
input_re	The Shiny server input object, wrapped into a reactive expression: input_re = reactive({input})

Value

The function returns a shiny server module.

See Also

```
https://shiny.rstudio.com/articles/modules.html
```

```
if (interactive()) {
rv <- list()
shiny::callModule(
   module_uniq_plaus_server,
   "moduleUniquenessPlausibilities",
   rv = rv,
   input_re = reactive(input)
)
}</pre>
```

Description

```
module_uniq_plaus_ui
```

Usage

```
module_uniq_plaus_ui(id)
```

Arguments

id

A character. The identifier of the shiny object

Value

The function returns a shiny ui module.

See Also

https://shiny.rstudio.com/articles/modules.html

Examples

```
set\_target\_equal\_to\_source
```

This function is called when the user clicks on the button

Description

```
"Set target == source". It sets target settings = source settings.
```

```
set_target_equal_to_source(rv)
```

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Arguments

rv

The global 'reactive Values()' object, defined in server.R

show_failure_alert

Sjows an error alert modal with the hint to look into the logfile.

Description

See title.

Usage

```
show_failure_alert(what_failed)
```

Arguments

what_failed Short description of what failed.Like: "Getting the data failed." '

Value

Nothing - Just shows the alert modal.

```
test\_connection\_button\_clicked
```

Checks if an connection can be established to the system.

Description

After the button "Check connection" is pressed in the GUI, this function will be called and tries to connect to this system and feedbacks the result to the user. If the connection is successfully established, the button will be disabled and this connection will be stored as valid for the given source/target system.

```
test_connection_button_clicked(
  rv,
  source_target,
  db_type,
  input,
  output,
  session
)
```

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Arguments

rv The global 'reactiveValues()' object, defined in server.R

source_target (String) "source" or "target"

db_type (String) "postgres" or "oracle"

input Shiny server input object

output Shiny server output object

session Shiny session object

Value

true if the connection could be established and false otherwise (also if an error occurred)

validate_inputs This function checks if all necessary input parameters for source and

target exist and are valid.

Description

This function checks if all necessary input parameters for source and target exist and are valid.

Usage

```
validate_inputs(rv, input, output, session)
```

Arguments

rv The global 'reactive Values()' object, defined in server.R

input Shiny server input object output Shiny server output object session Shiny session object

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