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Author Jonathan Lin [aut, cre] (https://orcid.org/0000-0001-8664-6846)
Maintainer Jonathan Lin <hello@jonlin.ca></hello@jonlin.ca>
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create_results_analyses

Create, Update or Delete Results - Analyses

Description

Create, Update or Delete Results - Analyses

Usage

```
create_results_analyses(auth, collection_id, name, ...)
update_results_analyses(auth, analysis_id, ...)
delete_results_analyses(auth, analysis_id)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond collection_id The ID number of the collection

name The name of the Results object to create

... List(s) to add additional data

analysis_id The ID number of the analyses

Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

Functions

- update_results_analyses: Update an analyses
- delete_results_analyses: Delete an analyses

```
create_results_collections
```

Create, Update or Delete Results - Collections

Description

Create, Update or Delete Results - Collections

Usage

```
create_results_collections(auth, name, ...)
update_results_collections(auth, collection_id, ...)
delete_results_collections(auth, collection_id)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

name The name of the Results object to create

... List(s) to add additional data collection_id The ID number of the collection

Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

Functions

- update_results_collections: Update a collection
- delete_results_collections: Delete a collection

Examples

```
## Not run:
# Create and delete a Collection
auth <- setup_highbond(Sys.getenv('highbond_openapi'),</pre>
 Sys.getenv('highbond_org'),
 Sys.getenv('highbond_datacenter'))
name <- 'galvanizer Test Collection'
response <- create_results_collections(auth, name)</pre>
collection_id <- response$id[[1]]</pre>
response <- delete_results_collections(auth, collection_id)
# Create a Collection with attributes
myattr <- list(description = 'My first description')</pre>
response <- create_results_collections(auth, name, attributes = myattr)
collection_id <- response$id[[1]]</pre>
# Update a Collection with attributes
myattr <- list(name = 'galvanizer Super Test Collection', description = 'My second description')</pre>
response <- update_results_collections(auth, collection_id, attributes = myattr)
# Delete a Collection
response <- delete_results_collections(auth, collection_id)</pre>
## End(Not run)
```

create_results_columns 5

```
create_results_columns
```

Create or Delete Results - Columns

Description

post_results_records will upload a data frame with the correct specification for the fields uploaded. You can use this function to add columns manually if preferred, especially if a non-standard column type.

Usage

```
create_results_columns(auth, table_id, columns)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

table_id The ID number of the table

columns A data frame with columns to be added

Details

When creating columns, the argument will accept a data frame. This data frame must only have three columns - field_name, display_name, and data_type. See API for allowable data_type.

When deleting columns, the argument will accept a data frame. This data frame must only have one column - field_name

Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

Examples

```
## Not run:
    auth <- setup_highbond(Sys.getenv('highbond_openapi'),
        Sys.getenv('highbond_org'),
        Sys.getenv('highbond_datacenter'))

field_name <- c("a", "b", "c", "d", "e", "f", "g")
    display_name <- c("field_one", "field_two", "field_three",
        "field_four", "field_five", "field_six", "field_seven")
    data_type <- c("character", "numeric", 'logical',
        'date', 'datetime', 'file', 'digital_signature')
    columns <- data.frame(field_name, display_name, data_type)

table_id <- 12345
    response <- create_results_columns(auth, table_id, columns)</pre>
```

6 create_results_tables

```
## End(Not run)
```

Description

Create, Update or Delete Results - Tables

Usage

```
create_results_tables(auth, analysis_id, name, ...)
update_results_tables(auth, table_id, ...)
delete_results_tables(auth, table_id)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

analysis_id The ID number of the analyses

name The name of the Results object to create

... List(s) to add additional data table_id The ID number of the table

Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

Functions

- update_results_tables: Update an analyses
- delete_results_tables: Delete an analyses

get_projects 7

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Retrieve Highbond Projects - Projects

Description

Downloads the primary details of one or all projects

Usage

```
get_projects(
  auth,
  project_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

project_id Project ID number. NULL will default to all items.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

Fields allowed: name, state, status, created_at, updated_at, description, background, budget, position, certification, control_performance, risk_assurance, management_response, max_sample_size, number_of_testing_rounds, opinion, opinion_description, purpose, scope, start_date, target_date, tag_list, project_type, entities

Value

A tibble of projects

Examples

```
## Not run:
projects <- get_projects(auth)
projects <- get_projects(auth, fields = c('name', 'state', 'status'))
## End(Not run)</pre>
```

8 get_project_actions

Description

"An action is a specific follow-up measure that is associated with an identified issue. You can add actions and assign action owners. You can also set up reminders for yourself to retest issues or track hours spent on retesting by self-assigning actions."

Usage

```
get_project_actions(
  auth,
  issue_id = NULL,
  action_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
issue_id	Required if other parameter is blank. May obtain multiple rows.
action_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

possible fields: title, created_at, updated_at, owner_name, owner_email, send_recurring_reminder, include_issue_details, include_remediation_details, description, due_date, priority, closed, completed_date, status, submitted_on, custom_attributes, issue, assigned_by, cc_users

Value

A tibble of actions

```
get_project_collaborators
```

Retrieve Highbond Projects - Collaborators

Description

Get the collaborators, aka user roles in Project or Framework.

Usage

```
get_project_collaborators(
  auth,
  project_id = NULL,
  encoded_uid = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
project_id	Required if other parameter is blank.
encoded_uid	Required if the other parameter is blank. Base64 encoded parent resource id (project or framework) and user uid, encoded from format parent_resource_id:user_uid
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

Fields allowed: project, framework, user, project_role, effective_role, organization_role, created_at, updated_at, group

Value

A tibble of collaborators

10 get_project_controls

Description

"A control is a program, policy, routine, or activity that is intended to mitigate a risk. Controls are organized by objectives, and can be associated with one or more risks. The combination of identified risks and corresponding controls defines the Risk Control Matrix. Controls are also known as procedures."

Usage

```
get_project_controls(
  auth,
  objective_id = NULL,
  control_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
objective_id	Required if other parameter is blank. May obtain multiple rows.
control_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

possible fields: title, description, control_id, owner, frequency, control_type, prevent_detect, method, status, position, created_at, updated_at, custom_attributes, objective, walkthrough, control_test_plan, control_tests, mitigations, owner_user, entities

Value

A tibble of controls

Description

"Control tests evaluate the operating effectiveness of a control."

Usage

```
get_project_control_tests(
  auth,
  control_test_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
control_test_id	
	Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

Only applicable to test plans with Internal Control types

Value

A tibble of control tests

Description

"A test plan is a document that details how controls are assessed. Test plans identify the testing method or type of evidence obtained, specify the total sample size (split amongst testing rounds), and illustrate test steps or attributes."

Usage

```
get_project_control_test_plans(
  auth,
  control_test_plan_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

Details

Only applicable to test plans with Internal Control types

possible fields: testing_round_number, not_applicable, sample_size, testing_results, testing_conclusion, created_at, updated_at, control, assigned_user

Value

A tibble of control test plans

get_project_entities 13

Description

Get all the entities

Usage

```
get_project_entities(
  auth,
  entity_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
entity_id	NULL will default to all entities.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

Fields allowed: title, description, created_at, updated_at, parent, children_count, entity_category

Value

A tibble of entities

Description

Get all the entity categories

14 get_project_issues

Usage

```
get_project_entity_categories(
  auth,
  entity_category_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

Details

Fields allowed: title, description, position, entities_count, created_at, updated_at, entities

Value

A tibble of entities

Description

"An issue is a problem, control gap, or exception that has been identified within a project. Adding an issue involves recording basic information about the issue and assigning the issue to an owner. Issues may also be known as deficiencies, findings, or another customized term."

Usage

```
get_project_issues(
  auth,
  project_id = NULL,
  issue_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

get_project_mitigations 15

Arguments

auth Highbond authentication credentials, created from setup_highbond project_id Required if other parameter is blank. May obtain multiple rows.

1 issue_id Required if other parameter is blank. Will get only one.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

possible fields: title, description, creator_name, created_at, updated_at, position, owner, recommendation, deficiency_type, severity, published, identified_at, reference, reference_prefix, risk, scope, escalation, cause, effect, cost_impact, executive_summary, executive_owner, project_owner, closed, remediation_status, remediation_plan, remediation_date, actual_remediation_date, retest_deadline_date, actual_retest_date, retesting_results_overview, custom_attributes, project, entities

Value

A tibble of issues

```
get_project_mitigations
```

Retrieve Highbond Project - Mitigations

Description

The mapping between controls and risks

Usage

```
get_project_mitigations(
  auth,
  mitigation_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

mitigation_id Will get only one.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Value

A tibble of mitigations

```
get_project_narratives
```

Retrieve Highbond Project - Narratives

Description

"A narrative is a description of a business process or area under review. Narratives are also known as policies, process narratives, process descriptions, or control guides."

Usage

```
get_project_narratives(
  auth,
  objective_id = NULL,
  narrative_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond
objective_id Required if other parameter is blank. May obtain multiple rows.

Required if other parameter is blank. Will get only one row.

OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

possible fields: title, description, created_at, updated_at, objective

Value

A tibble of narratives

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```
get_project_objectives
```

Retrieve Highbond Project - Objectives

Description

Downloads the primary details of one or multiple objectives for a project. Also known as sections, processes, cycles, functional areas, application systems, or another custom term.

Usage

```
get_project_objectives(
  auth,
  project_id = NULL,
  objective_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
project_id	Required if other parameter is blank. May obtain multiple rows.
objective_id	Required if other parameter is blank. Will get only one row.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

possible fields: title, description, reference, division_department, owner, executive_owner, created_at, updated_at, project, assigned_user, custom_attributes, position, risk_control_matrix_id, walkthrough_summary_id, testing_round_1_id, testing_round_2_id, testing_round_3_id, testing_round_4_id, entities

Value

A tibble of objectives

Description

Downloads the primary details of one or multiple planning files for a project.

Usage

```
get_project_planning_files(
  auth,
  project_id = NULL,
  planning_file_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth	Highbond authentication credentials, created from setup_highbond
project_id	Required if other parameter is blank. May obtain multiple rows.
planning_file_	id
	Required if other parameter is blank. Will get only one row.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

Details

possible fields: name, reference_id, description, position, created_at, updated_at, custom_attributes, project

Value

A tibble of planning files.

```
get_project_request_items
```

Retrieve Highbond Project - Request Items

Description

Capture what you asked for

Usage

```
get_project_request_items(
  auth,
  request_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

request_id Will get only one.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Value

A tibble of walkthroughs

```
get_project_result_files
```

Retrieve Highbond Project - Result Files

Description

Downloads the primary details of one or multiple result files for a project.

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Usage

```
get_project_result_files(
  auth,
  project_id = NULL,
  results_file_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond project_id Required if other parameter is blank. May obtain multiple rows. results_file_id

Required if other parameter is blank. Will get only one row.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

possible fields: name, reference_id, description, position, created_at, updated_at, custom_attributes, project

Value

A tibble of result files

Description

"A narrative is a description of a business process or area under review. Narratives are also known as policies, process narratives, process descriptions, or control guides."

Usage

```
get_project_risks(
  auth,
  objective_id = NULL,
  risk_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

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Arguments

auth Highbond authentication credentials, created from setup_highbond
objective_id Required if other parameter is blank. May obtain multiple rows.

risk_id Required if other parameter is blank. Will get only one.

fields OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

possible fields: title, description, risk_id, position, impact, likelihood, custom_attributes, created_at, updated_at, objective, mitigations, entities

Value

A tibble of Risks

get_project_types

Retrieve Highbond Projects - Project Types

Description

Downloads the primary details of one or all project types.

Usage

```
get_project_types(
  auth,
  project_type_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

project_type_id

NULL Defaults to all project types

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Details

Possible fields include: name, description, workflow, project_terms, certification_terms, control_terms, finding_terms, control_test_terms, finding_action_terms, narrative_terms, objective_terms, planning_terms, results_terms, risk_terms, test_plan_terms, walkthrough_terms

Value

A tibble of project types

Description

Get the custom attributes set within a project type. Note these are different than the custom terms used to rename fields. For those, see get_project_types

Usage

```
get_project_type_custom_attributes(
  auth,
  project_type_id = NULL,
  custom_attributes_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

```
auth Highbond authentication credentials, created from setup_highbond

project_type_id

Required if other parameter is blank.

custom_attributes_id

Required if the other parameter is blank. Base64 encoded parent resource id

(project or framework) and user uid, encoded from format parent_resource_id:user_uid..

fields

OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize

Defaults to 50. Maximum is 100.

waittime

Time in seconds to wait between requests.
```

Value

A tibble of custom attributes

```
get_project_walkthroughs
```

Retrieve Highbond Project - Walkthroughs / Execute Procedures

Description

"A walkthrough is a series of steps you perform to establish the reliability of controls and test the design of controls. Each control you define has a corresponding walkthrough that is used to verify that the control is designed appropriately. In a Workplan workflow project, a walkthrough is called an execute procedure."

Usage

```
get_project_walkthroughs(
  auth,
  walkthrough_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

walkthrough_id Will get only one.

fields OPTIONAL. A character vector each field requested within the project. NULL

will default to all fields.

pagesize Defaults to 50. Maximum is 100.

waittime Time in seconds to wait between requests.

Value

A tibble of walkthroughs

Description

Downloads a list of Analyses in a Collection

Usage

```
get_results_analyses(auth, collection_id = NULL, analysis_id = NULL)
```

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Arguments

auth Highbond authentication credentials, created from setup_highbond

collection_id Collection ID. Required if other parameter is blank.
analysis_id Analyses ID. Required if other parameter is blank.

Value

A data frame of Analyses in a Collection

```
get_results_collections
```

Retrieve Highbond Results - Collections

Description

Downloads a list of collections

Usage

```
get_results_collections(auth, collection_id = NULL)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

collection_id Collection ID. Optional.

Value

A data frame of Collections

Description

Gets the schema of a single table.

Usage

```
get_results_columns(auth, table_id)
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

table_id Table ID. Required.

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Value

A data frame column name and types of a single Table

Description

Downloads the content in the structure as saved by Highbond Results, including metadata and questionnaire responses (if applicable).

Usage

```
get_results_records(auth, table_id, timezone = Sys.timezone())
```

Arguments

auth Highbond authentication credentials, created from setup_highbond

table_id The table to be downloaded

timezone Defaults to Sys.timezone(). See OlsonNames() for a list of allowable time-

zones.

Details

Table ID can be found in the path of your Result table. https://<company_name>.results.highbond.com/projects/<COLLECTION CONTRACTOR (COLLECTION CONTRACTOR)

Value

A list containing the contents, table requested and the original response

Examples

```
## Not run:
response <- get_results_records(auth, 567890)
## End(Not run)</pre>
```

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```
get_results_tables
```

Retrieve Highbond Results - Tables

Description

Downloads the primary details of one or all tables in an Analyses

Usage

```
get_results_tables(auth, analysis_id = NULL, table_id = NULL)
```

Arguments

```
auth Highbond authentication credentials, created from setup_highbond analysis_id Analysis ID. Required if other parameter is blank.

table_id Table ID. Required if other parameter is blank.
```

Value

A data frame of Tables in an Analyses

```
{\tt post\_results\_records} \quad \textit{Upload Highbond Results - Records}
```

Description

Uploads the content in to Highbond Results.

Usage

```
post_results_records(
   auth,
   table_id,
   upload = NULL,
   purge = FALSE,
   skipquestions = FALSE,
   sizelimit = 75000
)
```

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Arguments

auth	Highbond authentication credentials, created from setup_highbond
table_id	The table to be downloaded
upload	A data frame to be uploaded. Classes supported are c('character', 'numeric', 'logical', 'Date', 'POSIXct', 'POSIXlt')
purge	FALSE by default. Whether or not to delete the contents of the table before overwriting.
skipquestions	FALSE by default. Set TRUE if not purging and you don't want to overwrite the responses within the Results table already.
sizelimit	75000 bytes (~75 kb) by default. Used to estimate chunk size. Reduce size if upload chunks tend to fail.

Details

Current Results in the table can be purged or not. If data is not purged, a check is performed that compatible types are being upload and all fields exist. If purged, there will be no checks done beforehand, which may alter structure of existing table.

If the Result table contains questionnaire responses, then any records that are being updated may need to have the responses also included as well. These fields are usually prefixed with a 'q'.

A result row is generally appended, however a Primary Key field within the Data Analytic Settings for that table may be specified so a record with the same primary key may be merged, rather than duplicated.

Value

No return value, although errors will be verbose

Examples

```
## Not run:
    upload <- data.frame(field_one = c('A','B','C'),
    field_two = c(1, 2, 3),
    field_three = c(10L, 11L, 12L),
    field_four = c(TRUE, FALSE, TRUE),
    field_five = c(as.Date('2019-01-01'), as.Date('2020-01-01'), as.Date('2021-12-31')),
    field_six = c(as.POSIXct(Sys.time()), as.POSIXct(Sys.time()), as.POSIXct(Sys.time())))
    post_results_records(auth, upload = upload, purge = TRUE)

## End(Not run)</pre>
```

28 setup_highbond

_highbond Highbond Authentication credentials

Description

Assembles all the core authentication needed to connect to a Highbond instance.

Usage

```
setup_highbond(apikey, instance, datacenter)
```

Arguments

apikey Highbond API token

instance The HighBond instance ID, also known as the organization number

datacenter The region code. Can be 'us', 'ca', 'eu', 'ap', 'au'

Details

Requires a Highbond API token. Activate a token from https://help.highbond.com/helpdocs/highbond/en-us/Content/launchpad/getting_started/managing_access_tokens.html.

The Instance (Organization) number and datacenter can both be found from the Highbond launchpad, then accessing Options and Organization. https://accounts.highbond.com/orgs/<ORG_ID>/details

Value

A Highbond Authentication credentials object to pass to your requests

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