Package: cloudosR (via r-universe)

June 2, 2026

Type Package

Title 'Lifebit' Platform 'API' Client

Version 0.2.0

Description Interacts with the 'Lifebit' Platform Cohort Browser 'API' <https://cloudos.lifebit.ai>. Enables schema discovery, table exploration, and read-only 'SQL' query execution with policy-aware behavior and team-based access control for cohort data analysis. Requires bastion-enabled workspaces for 'API' access.

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Encoding UTF-8

Depends R (>= 4.1.0)

Imports httr2, jsonlite, utils

Suggests testthat (>= 3.0.0), knitr, rmarkdown

VignetteBuilder knitr

RoxygenNote 7.3.3

NeedsCompilation no

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Config/pak/sysreqs libssl-dev

Repository https://l-mansouri.r-universe.dev

Date/Publication 2026-06-01 09:10:14 UTC

RemoteUrl https://github.com/cran/cloudosR

RemoteRef HEAD

RemoteSha 7d273bdc8e2ecbd4ddcf452fd7a63532f303702d

Contents

`cloudos.cohort_tables` *List Cohort Tables*

Description

Retrieves the list of available database schemas and tables for a cohort.

Usage

```
cloudos.cohort_tables(profilename = "", cohort_id = "")
```

Arguments

`profilename`	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
`cohort_id`	Character. ID of the cohort to query schemas for.

Value

List with schema information including databases, tables, and columns.

Examples

```
## Not run:
  # Get available schemas for a cohort
  schemas <- cloudos.cohort_tables(
    profilename = "production",
    cohort_id = "your-cohort-id"
  )

  # Display databases
  cat("Available databases:\n")
  for (db in schemas) {
    cat("  -", db$database, "\n")
  }

## End(Not run)
```

`cloudos.configure` *Configure Lifebit Platform Profile*

Description

Stores API credentials and workspace context for a named profile. This is the required first step before any API wrapper call.

Usage

```
cloudos.configure(
  profilename = "",
  apikey = "",
  workspace_id = "",
  base_url = "https://cloudos.lifebit.ai",
  set_default = FALSE
)
```

Arguments

`profilename`	Character. Name of the profile to create or update.
`apikey`	Character. API key for authentication.
`workspace_id`	Character. Workspace/team ID for API requests.
`base_url`	Character. Base URL for Lifebit Platform API (default: "https://cloudos.lifebit.ai").
`set_default`	Logical. If TRUE, sets this profile as the default (default: FALSE).

Value

Invisible NULL. Prints a success message.

Examples

```
## Not run:
  cloudos.configure(
    profilename = "production",
    apikey = "your-api-key",
    workspace_id = "5c6d3e9bd954e800b23f8c62",
    set_default = TRUE
  )

## End(Not run)
```

cloudos.profile_list *List Lifebit Platform Profiles*

Description

Lists configured profiles so users can confirm available environments.

Usage

```
cloudos.profile_list()
```

Value

Data frame with profile names and metadata (workspace_id, default, created_at, updated_at). Returns empty data frame if no profiles are configured.

Examples

```
## Not run:
  profiles <- cloudos.profile_list()
  print(profiles)

## End(Not run)
```

cloudos.query *Execute SQL Query (Orchestrator)*

Description

High-level function that orchestrates the full query lifecycle: submit -> poll status -> fetch results as dataframe.

Usage

```
cloudos.query(
  profilename = "",
  cohort_id = "",
  sql = "",
  poll_interval = 2,
  max_wait = 600,
  page_size = 1000,
  all_pages = TRUE
)
```

Arguments

profilename	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
cohort_id	Character. ID of the cohort to query.
sql	Character. SQL query to execute.
poll_interval	Integer. Seconds between status checks (default: 2).
max_wait	Integer. Maximum seconds to wait for completion (default: 600).
page_size	Integer. Number of rows per page (default: 1000).
all_pages	Logical. Fetch all result pages automatically (default: TRUE). When TRUE, submits multiple async tasks (one per page) to fetch complete results.

Details

IMPORTANT: Pagination works by submitting separate tasks for each page. When all_pages=TRUE, this function submits multiple async tasks (one per page), waits for all to complete, and combines the results. This may take longer for large result sets.

Value

Data frame with query results.

Examples

```
## Not run:
  # Fetch all results
  results <- cloudos.query(
    profilename = "production",
    cohort_id = "699edb4380a6867895f0c9e1",
    sql = "SELECT person_id, gender_concept_id FROM person LIMIT 500"
  )

  # Fetch only first page
  results_page1 <- cloudos.query(
    profilename = "production",
    cohort_id = "699edb4380a6867895f0c9e1",
    sql = "SELECT person_id FROM person",
    all_pages = FALSE,
    page_size = 100
  )

## End(Not run)
```

cloudos.query_results *Fetch Async Query Results*

Description

Fetches results from a completed async SQL task and returns as a dataframe.

Usage

```
cloudos.query_results(profilename = "", task_id = "")
```

Arguments

profilename	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
task_id	Character. Task ID returned from cloudos.query_submit_async().

Details

Note: Pagination is controlled when submitting the query via cloudos.query_submit_async(), not when fetching results. This function returns whatever page the task was configured for.

Value

Data frame with query results from the page configured at submission time.

Examples

```
## Not run:
  # Fetch results for a task (returns the page configured when query was submitted)
  results <- cloudos.query_results(
    profilename = "production",
    task_id = "69a5c58d626fe626da0025ce"
  )

## End(Not run)
```

cloudos.query_status *Check Async Query Status*

Description

Returns the current status and metadata for a submitted async SQL task.

Usage

```
cloudos.query_status(profilename = "", task_id = "")
```

Arguments

profilename	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
task_id	Character. Task ID returned from cloudos.query_submit_async().

Value

List with task status, count of results, and other metadata.

Examples

```
## Not run:
  status <- cloudos.query_status(
    profilename = "production",
    task_id = "69a5c58d626fe626da0025ce"
  )
  print(status$status)
  print(status$count_of_results)

## End(Not run)
```

---

cloudos.query_submit_async

Submit Async SQL Query

Description

Starts async SQL execution for a cohort and returns a task ID for tracking.

Usage

```
cloudos.query_submit_async(
  profilename = "",
  cohort_id = "",
  sql = "",
  pagination = NULL
)
```

Arguments

profilename	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
cohort_id	Character. ID of the cohort to query.
sql	Character. SQL query to execute.
pagination	List (optional). Pagination settings with pageNumber and pageSize. Example: list(pageNumber = 0, pageSize = 100). If NULL, API returns default page.

Value

List with task metadata including task_id, status, and full response.

Examples

```
## Not run:
  # Submit query without pagination
  task <- cloudos.query_submit_async(
    profilename = "production",
    cohort_id = "699edb4380a6867895f0c9e1",
    sql = "SELECT person_id FROM person LIMIT 100"
  )

  # Submit query with pagination for page 2 with 50 rows per page
  task <- cloudos.query_submit_async(
    profilename = "production",
    cohort_id = "699edb4380a6867895f0c9e1",
    sql = "SELECT person_id FROM person",
    pagination = list(pageNumber = 2, pageSize = 50)
  )
  print(task$task_id)

## End(Not run)
```

---

cloudos.sql_validate *Validate SQL Query*

Description

Validates SQL syntax and references before execution.

Usage

```
cloudos.sql_validate(profilename = "", sql = "")
```

Arguments

profilename	Character. Name of the configured profile to use. If empty or NULL, uses the default profile.
sql	Character. SQL query to validate.

Value

List with validation results including isValid, tableReferences, and columnReferences.

Examples

```
## Not run:
  # Validate a SQL query
  validation <- cloudos.sql_validate(
    profilename = "production",
    sql = "SELECT person_id FROM person WHERE year_of_birth >= 1960"
  )

  if (validation$isValid) {
    cat("SQL is valid\n")
    cat("Tables:", paste(validation$tableReferences, collapse = ", "), "\n")
  } else {
    cat("SQL is invalid:", validation$message, "\n")
  }

## End(Not run)
```

`print.cloudos_tables` *Print method for cloudos_tables*

Description

Print method for cloudos_tables

Usage

```
## S3 method for class 'cloudos_tables'
print(x, ...)
```

Arguments

`x`	A cloudos_tables object
`...`	Additional arguments (unused)

Value

The `cloudos_tables` object `x`, returned invisibly. Called primarily for its side effect of printing a formatted list of schemas and tables to the console.

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