Package 'AnVILBilling'

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Title Provide functions to retrieve and report on usage expenses in NHGRI AnVIL (anvilproject.org).

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Version 1.22.0

Description AnVILBilling helps monitor AnVIL-related costs in R, using queries to a BigQuery table to which costs are exported daily. Functions are defined to help categorize tasks and associated expenditures, and to visualize and explore expense profiles over time. This package will be expanded to help users estimate costs for specific task sets.

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Encoding UTF-8

LazyData true

Depends R (>= 4.1)

Imports methods, DT, shiny, bigrquery, shinytoastr, DBI, magrittr, dplyr, lubridate, plotly, ggplot2

Suggests testthat, knitr, BiocStyle, rmarkdown

RoxygenNote 7.1.1

VignetteBuilder knitr

biocViews Infrastructure, Software

BugReports https://github.com/vjcitn/AnVILBilling/issues

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`ab_reckoning` *accessor for reckoning element*

Description

accessor for reckoning element

Usage

```
ab_reckoning(x)
```

Arguments

`x`	an instance of avReckoning

Value

a tibble with one row for each expense type by time slice

Examples

```
dim(ab_reckoning(demo_rec))
```

browse_reck *prototypical cost exploring app*

Description

prototypical cost exploring app

Usage

```
browse_reck()
```

Value

returns "NULL"

Examples

```
if (interactive()) browse_reck()
```

browse_reck2 *alternate app for AnVIL where htmlwidgets misbehaves*

Description

alternate app for AnVIL where htmlwidgets misbehaves

Usage

```
browse_reck2()
```

demo_rec *a demonstration avReckoning object*

Description

a demonstration avReckoning object

Usage

```
demo_rec
```

Format

avReckoning instance

Note

This is a snapshot of cost data collected for a specific project.

Examples

```
demo_rec
```

`getBilling` *request billing data*

Description

request billing data

Usage

```
getBilling(
  startDate,
  endDate,
  bqProject,
  bqDataset,
  bqTable,
  bqBilling_code,
  page_size = 50000
)
```

Arguments

`startDate`	character(1) date of start of reckoning
`endDate`	character(1) date of end of reckoning
`bqProject`	character(1) GCP project id
`bqDataset`	character(1) GCP dataset id for billing data in BQ
`bqTable`	character(1) GCP table for billing data in BQ
`bqBilling_code`	character(1) GCP billing code
`page_size`	numeric(1) passed to dbConnect

Value

tbl_df

Note

On 21 August 2020 VJC changed condition on endDate to <=

Examples

```
if (interactive()) {
getBilling(startDate="2020-08-01",
   endDate="2020-08-15", bqProject="bjbilling",
   bqTable="gcp_billing_export_v1_015E39_38569D_3CC771",
   bqDataset="anvilbilling", bqBilling_code="landmarkanvil2")
}
```

`getKeys` *return keys*

Description

return keys

Usage

```
getKeys(mybilling)
```

Arguments

`mybilling`	tbl_df

Value

character()

`getSkus` *List the available GCP product skus*

Description

List the available GCP product skus

Usage

```
getSkus(mybilling)
```

Arguments

`mybilling`	tbl_df

Value

character()

`getSubmissionCost` *Calcuate costs for a workflow submission by ID*

Description

Calcuate costs for a workflow submission by ID

Usage

```
getSubmissionCost(mybilling, submissionID)
```

Arguments

`mybilling`	tbl_df
`submissionID`	character(1) Terra submission ID

Value

numeric()

Examples

```
data(demo_rec) # makes rec
v = getValues(demo_rec@reckoning, "terra-submission-id")[1] # for instance
getSubmissionCost(demo_rec@reckoning,v)
```

`getSubmissionRam` *Calcuate ram usage for a workflow submission by ID*

Description

Calcuate ram usage for a workflow submission by ID

Usage

```
getSubmissionRam(mybilling, submissionID)
```

Arguments

`mybilling`	tbl_df
`submissionID`	character(1) Terra submission ID

Value

data.frame

Examples

```
data(demo_rec) # makes rec
v = getValues(demo_rec@reckoning, "terra-submission-id")[1] # for instance
getSubmissionRam(demo_rec@reckoning,v)
```

`getValues` *deal with nested tables in a reckoning*

Description

deal with nested tables in a reckoning

Usage

```
getValues(mybilling, mykey)
```

Arguments

`mybilling`	tbl_df from reckon()
`mykey`	character(1) key

Value

character()

Examples

```
if (interactive()) getValues(reckoning(demo_rec), "security")
```

`reckon` *perform reckoning*

Description

perform reckoning

Usage

```
reckon(obj)
```

Arguments

`obj`	instance of avReckoningRequest

Value

instance of avReckoning

Examples

```
data(demo_rec)
if (interactive()) reckon(demo_rec)
```

`reckoning` *generic for accessor for reckoning component*

Description

generic for accessor for reckoning component

Usage

```
reckoning(x)
```

Arguments

x	object inheriting from avReckoning

Value

tbl_df

Examples

```
if (interactive()) reckoning(reckon(demo_rec))
```

`reckoning,avReckoning-method` *accessor for reckoning component*

Description

accessor for reckoning component

Usage

```
## S4 method for signature 'avReckoning'
reckoning(x)
```

Arguments

x	instance of avReckoning

Value

tbl_df

Examples

```
if (interactive()) reckoning(reckon(demo_rec))
```

`setup_billing_request` *set up request object*

Description

set up request object

Usage

```
setup_billing_request(start, end, project, dataset, table, billing_code)
```

Arguments

`start`	character(1) date of start of reckoning
`end`	character(1) date of end of reckoning
`project`	character(1) GCP project id
`dataset`	character(1) GCP dataset id for billing data in BQ
`table`	character(1) GCP table for billing data in BQ
`billing_code`	character(1) GCP billing code

Value

instance of avReckoningRequest

Examples

```
lk1 = setup_billing_request("2020-08-01", "2020-08-15",
   "bq_scoped_project", "bq_dataset", "bq_table", "billcode")
lk1
```

subsetByKeyValue *filter a reckoning by 'label' retaining records associated with a particular key-value pair*

Description

filter a reckoning by 'label' retaining records associated with a particular key-value pair

Usage

```
subsetByKeyValue(mybilling, mykey, myvalue)
```

Arguments

mybilling	instance of avReckoning
mykey	character(1)
myvalue	character(1)

Value

data.frame

Examples

```
example(reckon) # makes rec
v = getValues(ab_reckoning(demo_rec), "terra-submission-id")[1] # for instance
nt = subsetByKeyValue(ab_reckoning(demo_rec), "terra-submission-id", v)
head(nt)
dim(nt)
```

subsetBySku *subset a billing object by sku*

Description

subset a billing object by sku

Usage

```
subsetBySku(mybilling, mysku)
```

Arguments

mybilling	tbl_df
mysku	character(1) GCP product sku

Value

data.frame

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