

Package ‘AnVILBilling’

May 3, 2024

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

Date 2020-09-30

Version 1.14.0

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.

License Artistic-2.0

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>

git_url <https://git.bioconductor.org/packages/AnVILBilling>

git_branch RELEASE_3_19

git_last_commit 4f76977

git_last_commit_date 2024-04-30

Repository Bioconductor 3.19

Date/Publication 2024-05-03

Author BJ Stubbs [aut],
Vince Carey [aut, cre]

Maintainer Vince Carey <stvjc@channing.harvard.edu>

Contents

| | |
|--|-----------|
| ab_reckoning | 2 |
| browse_reck | 3 |
| browse_reck2 | 3 |
| demo_rec | 3 |
| getBilling | 4 |
| getKeys | 5 |
| getSkus | 5 |
| getSubmissionCost | 6 |
| getSubmissionRam | 6 |
| getValues | 7 |
| reckon | 7 |
| reckoning | 8 |
| reckoning.avReckoning-method | 8 |
| setup_billing_request | 9 |
| subsetByKeyValue | 10 |
| subsetBySku | 10 |
| Index | 12 |

| | |
|--------------|---------------------------------------|
| ab_reckoning | <i>accessor for reckoning element</i> |
|--------------|---------------------------------------|

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 | <i>request billing data</i> |
|------------|-----------------------------|

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 | <i>return keys</i> |
|---------|--------------------|

Description

return keys

Usage

```
getKeys(mybilling)
```

Arguments

mybilling tbl_df

Value

character()

| | |
|---------|--|
| getSkus | <i>List the available GCP product skus</i> |
|---------|--|

Description

List the available GCP product skus

Usage

```
getSkus(mybilling)
```

Arguments

mybilling tbl_df

Value

character()

| | |
|-------------------|--|
| getSubmissionCost | <i>Calculate costs for a workflow submission by ID</i> |
|-------------------|--|

Description

Calculate 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 | <i>Calculate ram usage for a workflow submission by ID</i> |
|------------------|--|

Description

Calculate 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 | <i>deal with nested tables in a reckoning</i> |
|-----------|---|

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 | <i>perform reckoning</i> |
|--------|--------------------------|

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 | <i>generic for accessor for reckoning component</i> |
|-----------|---|

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 | <i>accessor for reckoning component</i> |
|-------------------------------|---|

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 | <i>filter a reckoning by 'label' retaining records associated with a particular key-value pair</i> |
|------------------|--|

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 | <i>subset a billing object by sku</i> |
|-------------|---------------------------------------|

Description

subset a billing object by sku

Usage

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

Arguments

| | |
|-----------|------------------------------|
| mybilling | tbl_df |
| mysku | character(1) GCP product sku |

subsetBySku

11

Value

data.frame

Index

* datasets

demo_rec, 3

ab_reckoning, 2

browse_reck, 3

browse_reck2, 3

demo_rec, 3

getBilling, 4

getKeys, 5

getSkus, 5

getSubmissionCost, 6

getSubmissionRam, 6

getValues, 7

reckon, 7

reckoning, 8

reckoning, avReckoning-method, 8

setup_billing_request, 9

subsetByKeyValue, 10

subsetBySku, 10