Package 'GCSFilesystem'

April 12, 2022

Type Package

Title Mounting a Google Cloud bucket to a local directory

Version 1.4.0

Date 2020-09-16

Description Mounting a Google Cloud bucket to a local directory.
The files in the bucket can be viewed and read as if they are locally stored.
For using the package, you need to install GCSDokan on Windows or gcsfuse on Linux and MacOs.

License GPL (>= 2)

Depends R (>= 4.0.0)

Imports stats

Suggests testthat, knitr, rmarkdown, BiocStyle, GCSConnection

SystemRequirements GCSDokan for Windows, gcsfuse for Linux and macOs

biocViews Infrastructure

RoxygenNote 7.1.1

Encoding UTF-8

VignetteBuilder knitr

git_url https://git.bioconductor.org/packages/GCSFilesystem

git_branch RELEASE_3_14

git_last_commit 0b3a288

git_last_commit_date 2021-10-26

Date/Publication 2022-04-12

Author Jiefei Wang [aut, cre]

Maintainer Jiefei Wang <szwjf08@gmail.com>

R topics documented:

`gcs_list_mountpoints` *List all GCS mountpoints*

Description

List all GCS mountpoints. The function uses ‘GCSDokan“ on Windows or the command ‘df‘ on Linux to show all mountpoints. Due to the system differences, the function is only able to show the bucket name on Linux and can show the full remote path on Windows.

Usage

```
gcs_list_mountpoints()
```

Value

a data.frame object with the first column named ‘remote‘ and second named ‘mountpoint‘

Examples

```
gcs_list_mountpoints()
```

`gcs_mount` *Mount a Google Cloud Storage(GCS) file system*

Description

The function uses the command-line program ‘GCSDokan‘ on Windows or ‘gcsfuse‘ on Linux system to mount a google cloud bucket path to your local file system.

Usage

```
gcs_mount(
  remote,
  mountpoint,
  mode = c("r", "rw"),
  cache_type = c("disk", "memory", "none"),
  cache_arg = NULL,
  billing = NULL,
  refresh = 60,
  implicit_dirs = TRUE,
  key_file = NULL,
  additional_args = NULL
)
```

Arguments

remote	the remote path to a Google Cloud Storage bucket. It can be either the bucket itself or a directory in the bucket.
mountpoint	The mount point where the GCS file system will be mounted to.
mode	the permission of the mounted directory. The write permission is only available on Linux.
cache_type	The location where the file cache will be stored. The cache type ‘none‘ and ‘memory‘ are only available on Windows
cache_arg	The argument of a cache type. If ‘cache_type = "memory"‘, the argument is the limit of the memory useage in MB. If ‘cache_type = "disk"‘, the argument is the path to a cache directory.
billing	The billing project ID.
refresh	The refresh rate of the cloud files.
implicit_dirs	Implicitly define directories based on content. This argument is only available on Linux.
key_file	The service account credentials file
additional_args	The additional argument that will be passed to the command-line program.

Value

no return value

Examples

```
bucket <- "genomics-public-data"
mountpoint <- paste0(tempdir(),"/GCSFilesystemTest")
## You must have a credentials on Linux and macOs
## To run this code
if(Sys.getenv("GOOGLE_APPLICATION_CREDENTIALS")!=""){
    gcs_mount(bucket, mountpoint)
    gcs_unmount(mountpoint)
}
```

---

gcs_unmount *Unmound a mounted GCS file system*

Description

Unmound a mounted GCS file system

Usage

```
gcs_unmount(mountpoint)
```

Arguments

mountpoint	The path to the mounted GCS file system.

Value

No return value

Examples

```
## Unmount a directory
## No operation will be done
## if the directory does not exist or
## not a mounted directory
gcs_unmount("path_to_your_mounted_directory")
```

Index