

Package ‘GA4GHshiny’

February 19, 2024

Type Package

Title Shiny application for interacting with GA4GH-based data servers

Version 1.25.0

Description GA4GHshiny package provides an easy way to interact with data servers based on Global Alliance for Genomics and Health (GA4GH) genomics API through a Shiny application. It also integrates with Beacon Network.

License GPL-3

Depends GA4GHclient

Imports AnnotationDbi, BiocGenerics, dplyr, DT, GenomeInfoDb, openxlsx, GenomicFeatures, methods, purrr, S4Vectors, shiny, shinyjs, tidy, shinythemes

Suggests BiocStyle, org.Hs.eg.db, knitr, rmarkdown, testthat, TxDb.Hsapiens.UCSC.hg19.knownGene

LazyData TRUE

RoxygenNote 6.0.1

VignetteBuilder knitr

URL <https://github.com/labbc/GA4GHshiny>

BugReports <https://github.com/labbc/GA4GHshiny/issues>

biocViews GUI

git_url <https://git.bioconductor.org/packages/GA4GHshiny>

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GA4GHshiny-package	<i>Shiny application for interacting with GA4GH-based data servers</i>
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Description

GA4GHshiny package provides an easy way to interact with data servers based on Global Alliance for Genomics and Health (GA4GH) Genomics API through a Shiny application. It also integrates with Beacon Network.

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app	<i>Open web application</i>
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Description

Web application for interacting with GA4GH API data servers.

Usage

```
app(host, orgDb = NA_character_, txDb = NA_character_,
    serverName = "GA4GHshiny")
```

Arguments

host	Character vector of an URL of GA4GH API data server endpoint.
orgDb	character vector of an org.Db package.
txDb	character vector of a TxDb package.
serverName	character vector of the server name. Default: GA4GHshiny.

Details

This application is dependent of which data the server provides trough GA4GH API. If some of tables or graphic charts not appear, the server connected may not provide the necessary data. For example, INFO data.

Value

Shiny application object.

Examples

```
if (interactive()) {  
  library(org.Hs.eg.db)  
  library(TxDb.Hsapiens.UCSC.hg19.knownGene)  
  app("http://1kgenomes.ga4gh.org/", orgDb = "org.Hs.eg.db",  
      txDb = "TxDb.Hsapiens.UCSC.hg19.knownGene")  
}
```

countGenotype	<i>Count genotype</i>
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Description

Summarize a list of genotype data. Variant calls with no coverage (./.) do not enter in this count.

Usage

```
countGenotype(genotype)
```

Arguments

genotype list of integer vectors of length 2.

Value

[data.frame](#) of 1 row containing the columns below.

- ref.homozygous reference homozygous (e.g. 0/0);
- alt.heterozygous alternate heterozygous (e.g. 0/1, 1/2);
- ref.homozygous reference homozygous (e.g. 1/1, 2/2);
- total the sum of the three previous columns.

Examples

```
countGenotype(genotype = list(c(0,0), c(0,1), c(1,2), c(1,1), c(2,2)))
```

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