Package: groqR (via r-universe)

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Type Package

Title A Coding Assistant using the Fast AI Inference 'Groq'

Version 0.0.3

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Description A comprehensive suite of functions and 'RStudio' Add-ins leveraging the capabilities of open-source Large Language Models (LLMs) to support R developers. These functions offer a range of utilities, including text rewriting, translation, and general query capabilities. Additionally, the programming-focused functions provide assistance with debugging, translating, commenting, documenting, and unit testing code, as well as suggesting variable and function names, thereby streamlining the development process.

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URL https://github.com/GabrielKaiserQFin/groqR

BugReports https://github.com/GabrielKaiserQFin/groqR/issues

Imports clipr, httr, jsonlite, miniUI, rstudioapi, shiny, shinyWidgets, utils

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Language en-US

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RoxygenNote 7.3.1

Config/pak/sysreqs make libssl-dev libx11-dev zlib1g-dev

Repository https://gabrielkaiserqfin.r-universe.dev

RemoteUrl https://github.com/gabrielkaiserqfin/groqr

RemoteRef HEAD

RemoteSha c70788ce0738ca8da11b946cb65da64ee3c3cfdd

Contents

`.onAttach` *'Groq': Support Functions*

Description

Runs when attached such as by library() or require()

Usage

```
.onAttach(libname, pkgname)
```

Arguments

`libname`	The name of the library where this add-on is located.
`pkgname`	The name of the package that is being attached.

Details

This function is an attachment point for the 'onAttach' event in R packages. It is called when this package is attached to the R session."

APIcall *Get 'Groq' Completions Endpoint*

Description

Get 'Groq' Completions Endpoint

Usage

```
APIcall(prompt, ...)
```

Arguments

prompt	The prompt to generate completions for.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

ask *Ask 'Groq'*

Description

Note: See also clearChatSession.

Usage

```
ask(text = NULL, ...)
```

Arguments

text	The question to ask 'Groq'.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(ask("What do you think about Large language models?"))

## End(Not run)
```

`codeComment` *'Groq': Comment code*

Description

'Groq': Comment code

Usage

```
codeComment(code = NULL, ...)
```

Arguments

`code`	The code to be commented by 'Groq'. If not provided, it will use what's copied on the clipboard.
`...`	Following arguments can be set manually or in .Renviron: `GROQ_API_KEY`is the 'Groq API' key. `model` Model choice. Default is mistral-7b-instruct. `systemRole` System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." `maxTokens` The maximum integer of completion tokens returned. `temperature` The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. `top_p` Nucleus sampling threshold, valued between 0 and 1. `proxy` Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(codeComment("z <- function(x) scale(x)^2"))

## End(Not run)
```

codeConverter *Translate Code from One Language to Another*

Description

This function takes a snippet of code and translates it from one programming language to another using 'Groq API'. The default behavior is to read the code from the clipboard and translate from R to Python.

Usage

```
codeConverter(code = NULL, from = "R", to = "Python", ...)
```

Arguments

code	A string containing the code to be translated. If not provided, the function will attempt to read from the clipboard.
from	any programming language. Defaults to "R".
to	any programming language. Defaults to "Python".
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A string containing the translated code.

Examples

```
## Not run:
codeConverter("z <- function(x) scale(x)^2", from = "R", to = "Python")

## End(Not run)
```

coder *'Groq': Finish code*

Description

'Groq': Finish code

Usage

```
coder(code = NULL, language = "R", ...)
```

Arguments

code	The code to be completed by 'Groq'. If not provided, it will use what's copied on the clipboard.
language	The programming language to code in. Defaults to R.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(coder("# A function to square a vector\nsquare_each <- function("))

## End(Not run)
```

debug *'Groq': Find Issues in Code*

Description

'Groq': Find Issues in Code

Usage

```
debug(code = NULL, ...)
```

Arguments

code	The code to be analyzed by 'Groq'. If not provided, it will use what's copied on the clipboard.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(debug("z <- function(x) scale(x)2"))

## End(Not run)
```

---

execAddin *Run a 'Groq' RStudio Addin*

Description

Run a 'Groq' RStudio Addin

Usage

```
execAddin(FUN)
```

Arguments

FUN	The function to be executed.

execAddin_ask *Ask 'Groq'*

Description

Opens an interactive chat session with 'Groq'

Usage

```
execAddin_ask()
```

modelCall *Function to query current models*

Description

The `modelCall` function is designed to query current models from Groq.

Usage

```
modelCall(api_key = Sys.getenv("GROQ_API_KEY"))
```

Arguments

`api_key`	The Groq API key.

Details

The function checks the following environment variables:

- `GROQ_API_KEY`

Value

model table

nameIt *'Groq': Create a Function or Variable Name*

Description

'Groq': Create a Function or Variable Name

Usage

```
nameIt(code = NULL, namingConvention = "camelCase", ...)
```

Arguments

code	The code for which to give a variable name to its result. If not provided, it will use what's copied on the clipboard.
namingConvention	Defaults to "camelCase".
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(nameIt("sapply(1:10, function(i) i ** 2)"))

## End(Not run)
```

on_startup *Function to Handle Package Startup Logic*

Description

The on_startup function is designed to execute certain actions when the package is loaded. Specifically, it checks for the presence of required environment variables related to the GROQ system. If any of these variables are missing, it will launch a Shiny application.

Usage

```
on_startup(uiStartup = uiInit, serverStartup = serverInit)
```

Arguments

uiStartup	Shiny user interface.
serverStartup	Shiny server.

Details

The function checks the following environment variables:

- GROQ_model
- GROQ_systemRole
- GROQ_API_KEY
- GROQ_maxTokens
- GROQ_temperature
- GROQ_top_p
- GROQ_proxy

If any of these variables are not set (i.e., are empty strings), the function triggers the launch of a Shiny application defined by the ui and server components.

Value

None

See Also

shinyApp

optimizer *'Groq': Optimize Code*

Description

'Groq': Optimize Code

Usage

```
optimizer(code = NULL, ...)
```

Arguments

code	The code to be optimized by 'Groq'. If not provided, it will use what's copied on the clipboard.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(optimizer("z <- function(x) scale(x)^2"))

## End(Not run)
```

---

responseReturn *responseReturn*

Description

responseReturn

Usage

```
responseReturn(raw)
```

Arguments

raw	the chatresponse to return

Value

A character value with the response generated by the LLM.

`rewriter` *'Groq': Rewrite Text*

Description

'Groq': Rewrite Text

Usage

```
rewriter(text = NULL, ...)
```

Arguments

text	The text to be rewritten by 'Groq'. If not provided, it will use what's copied on the clipboard.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
rewriter("Dear Recipient, I hope this message finds you well.")

## End(Not run)
```

roxy *'Groq': Code Documentation in roxygen2 style or any other*

Description

'Groq': Code Documentation in roxygen2 style or any other

Usage

```
roxy(code = NULL, inLineDocumentation = "roxygen2", ...)
```

Arguments

code	The code to be documented by 'Groq'. If not provided, it will use what's copied on the clipboard.
inLineDocumentation	any documentation style. Defaults to roxygen2.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(roxy("z <- function(x) scale(x)^2"))

## End(Not run)
```

serverInit *Set GROQ Parameters Server Logic*

Description

This function handles the server logic for the UI, including the observeEvent for the action button. It asks the user to prompt various GROQ inputs. Once the 'proxy' parameter is set, the parameters are written to the environment as environment variables and a notification message is displayed.

Usage

```
serverInit(input, output, session)
```

Arguments

input	The input values as they are submitted by the user.
output	The output values.
session	The Shiny session object.

translater *'Groq': Translate Text*

Description

'Groq': Translate Text

Usage

```
translater(text = NULL, toLanguage = "German", ...)
```

Arguments

text	The text to be translated by 'Groq'. If not provided, it will use what's copied on the clipboard.
toLanguage	The language to be translated into.
...	Following arguments can be set manually or in .Renviron: GROQ_API_KEYis the 'Groq API' key. model Model choice. Default is mistral-7b-instruct. systemRole System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." maxTokens The maximum integer of completion tokens returned. temperature The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. top_p Nucleus sampling threshold, valued between 0 and 1. proxy Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
translater("Dear Recipient, I hope this message finds you well.")

## End(Not run)
```

---

uiInit *User Interface*

Description

It creates a fluidPage with a title and an action button for triggering the input event.

Usage

```
uiInit
```

Format

An object of class `shiny.tag.list` (inherits from `list`) of length 4.

---

unitTests *'Groq': Create Unit Tests*

Description

Create `{testthat}` test cases for the code.

Usage

```
unitTests(code = NULL, ...)
```

Arguments

code	The code for which to create unit tests by 'Groq'. If not provided, it will use what's copied on the clipboard.
...	Following arguments can be set manually or in .Renviron: `GROQ_API_KEY`is the 'Groq API' key. `model` Model choice. Default is mistral-7b-instruct. `systemRole` System role; Default is: "You are a helpful assistant with extensive knowledge of R programming." `maxTokens` The maximum integer of completion tokens returned. `temperature` The amount of randomness in the response, valued between 0 inclusive and 2 exclusive. Higher values are more random, and lower values are more deterministic. `top_p` Nucleus sampling threshold, valued between 0 and 1. `proxy` Default value is NULL.

Value

A character value with the response generated by 'Groq'.

Examples

```
## Not run:
cat(unitTests("squared_numbers <- function(numbers) {\n  numbers ^ 2\n}"))

## End(Not run)
```

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