

Package ‘askgpt’

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Type Package

Title Asking GPT About R Stuff

Version 0.1.3

Description A chat package connecting to API endpoints by 'OpenAI'
([<https://platform.openai.com/>](https://platform.openai.com/)) to answer questions (about R).

Depends R (>= 4.1.0)

Imports cli, callr, dplyr, glue, methods, rlang, httr2, rappdirs,
jsonlite

Suggests covr, knitr, miniUI, rmarkdown, rstudioapi, shiny,
shinycssloaders, spelling, testthat (>= 3.0.0), withr

URL <https://github.com/JBGruber/askgpt>

BugReports <https://github.com/JBGruber/askgpt/issues>

License GPL (>= 3)

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annotate_code	<i>Annotate R code with inline comments</i>
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Description

Annotate R code with inline comments

Usage

```
annotate_code(code, ...)
```

Arguments

code	A character vector of R code. If missing the code currently selected in RStudio is documented (If RStudio is used).
...	passed on to askgpt .

Value

A character vector.

askgpt	<i>Ask openai's GPT models a question</i>
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Description

Ask openai's GPT models a question

Usage

```
askgpt(prompt, chat = TRUE, progress = TRUE, return_answer = FALSE, ...)
```

Arguments

prompt	What you want to ask
chat	whether to use the chat API (i.e., the same model as ChatGPT) or the completions API.
progress	Show a progress spinner while the request to the API has not been fulfilled.
return_answer	Should the answer be returned as an object instead of printing it to the screen?
...	additional options forwarded to chat_api or completions_api respectively.

Value

either an httr2 response from one of the APIs or a character vector (if return_answer).

Examples

```
## Not run:  
askgpt("What is an R function?")  
askgpt("What is wrong with my last command?")  
askgpt("Can you help me with the function aes() from ggplot2?")  
  
## End(Not run)
```

chat_api	<i>Request answer from openai's chat API</i>
----------	----------------------------------------------

Description

Request answer from openai's chat API

Usage

```
chat_api(
  prompt,
  model = NULL,
  config = NULL,
  max_tokens = NULL,
  api_key = NULL,
  ...
)
```

Arguments

prompt	character string of the prompt to be completed.
model	character string of the model to be used (defaults to "text-davinci-003").
config	a configuration prompt to tell the model how it should behave.
max_tokens	The maximum number of tokens to generate in the completion. 2048L is the maximum the models accept.
api_key	set the API key. If NULL, looks for the env OPENAI_API_KEY.
...	additional parameters to be passed to the API (see [the API documentation](https://platform.openai.com/docs/reference/completions))

Value

A tibble with available models
 a httr2 response object

Examples

```
## Not run:
chat_api("Hi, how are you?", config = "answer as a friendly chat bot")

## End(Not run)
```

completions_api

Request answer from openai's completions API

Description

Mostly used under the hood for [askgpt](#).

Usage

```
completions_api(
  prompt,
  model = NULL,
  temperature = NULL,
  max_tokens = NULL,
  api_key = NULL,
  ...
)
```

Arguments

prompt	character string of the prompt to be completed.
model	character string of the model to be used (defaults to "text-davinci-003").
temperature	numeric value between 0 and 1 to control the randomness of the output (defaults to 0.2; lower values like 0.2 will make answers more focused and deterministic).
max_tokens	The maximum number of tokens to generate in the completion. 2048L is the maximum the models accept.
api_key	set the API key. If NULL, looks for the env OPENAI_API_KEY.
...	additional parameters to be passed to the API (see [the API documentation](https://platform.openai.com/docs/reference/completions))

Details

Only a few parameters are implemented by name. Most can be sent through the ... For example, you could use the n parameter just like this `completions_api("The quick brown fox", n = 2)`.

A couple of defaults are used by the package:

- the model used by default is "text-davinci-003"
- the default temperature is 0.2
- the default for max_tokens is 2048L

You can configure how `askgpt` makes requests by setting options that start with `askgpt_*`. For example, to use a different model use `options(askgpt_model = "text-curie-001")`. It does not matter if the API parameter is listed in the function or not. All are used.

Value

a `httr2` response object

Examples

```
## Not run:
completions_api("The quick brown fox")

## End(Not run)
```

document_code	<i>Document R Code</i>
---------------	------------------------

Description

Document R Code

Usage

```
document_code(code, ...)
```

Arguments

code	A character vector of R code. If missing the code currently selected in RStudio is documented (If RStudio is used).
...	passed on to askgpt .

Value

A character vector.

Examples

```
## Not run:  
document_code()  
  
## End(Not run)
```

estimate_token	<i>Estimate token count</i>
----------------	-----------------------------

Description

Estimate token count

Usage

```
estimate_token(x, mult = 1.6)
```

Arguments

x	character vector
mult	the multiplier used

Details

This function estimates how many tokens the API will make of the input words. For the models 1 word is more than one token. The default multiplier value resulted from testing the API. See <<https://help.openai.com/en/articles/4936856-what-are-tokens-and-how-to-count-them>> for more information.

Value

a integer vector of token counts

Examples

```
estimate_token("this is a test")
```

explain_code

Explain R code

Description

Explain R code

Usage

```
explain_code(code, ...)
```

Arguments

code	A character vector of R code. If missing the code currently selected in RStudio is documented (If RStudio is used).
...	passed on to askgpt .

Value

A character vector.

improve_addin	<i>Improve code/documentation/writing using a prompt</i>
---------------	----------------------------------------------------------

Description

'tutorialise_addin()' opens an [RStudio gadget](<https://shiny.rstudio.com/articles/gadgets.html>) and [addin](<http://rstudio.github.io/rstudioaddins/>) that can be used to improve existing code, documentation, or writing.

Usage

```
improve_addin()
```

Value

No return value, opens a new file in RStudio

list_models	<i>List Models</i>
-------------	--------------------

Description

List the models available in the API. You can refer to the [Models documentation](<https://platform.openai.com/docs/models>) to understand what models are available and the differences between them.

Usage

```
list_models(api_key = NULL)
```

Arguments

api_key set the API key. If NULL, looks for the env OPENAI_API_KEY.

Value

A tibble with available models

Examples

```
## Not run:  
completions_api("The quick brown fox")  
  
## End(Not run)
```

login	<i>Log in to OpenAI</i>
-------	-------------------------

Description

Log in to OpenAI

Usage

```
login(api_key, force_refresh = FALSE, cache_dir = NULL, no_cache = FALSE)
```

Arguments

api_key	API key to use for authentication. If not provided, the function look for a cached key or guide the user to obtain one.
force_refresh	Log in again even if an API key is already cached.
cache_dir	dir location to save keys on disk. The default is to use <code>rappdirs::user_cache_dir("askgpt")</code> .
no_cache	Don't cache the API key, only load it into the environment.

Value

a character vector with an API key

log_init	<i>Initiate error logging</i>
----------	-------------------------------

Description

Initiate error logging

Usage

```
log_init(...)
```

Arguments

...	forwarded to global_entrace
-----	---------------------------------------------

Details

Just an alias for `rlang::global_entrace()` with a more fitting name (for the purpose here).

Value

No return value, called to enable rlang error logging

new_conversation	<i>Start a new conversation</i>
------------------	---------------------------------

Description

Deletes the local prompt and response history to start a new conversation.

Usage

```
new_conversation()
```

Value

Does not return a value

parse_response	<i>Parse response from API functions</i>
----------------	------------------------------------------

Description

Parse response from API functions

Usage

```
parse_response(response)
```

Arguments

response a response object from [chat_api](#) or [completions_api](#)

Value

a character vector

`prompt_history` *Return the prompt/response history*

Description

Return the prompt/response history

Usage

`prompt_history(n = Inf)`

Arguments

`n` number of prompts/responses to return.

Value

a character vector

`response_history` *Return the prompt/response history*

Description

Return the prompt/response history

Usage

`response_history(n = Inf)`

Arguments

`n` number of prompts/responses to return.

Value

a character vector

test_function	<i>Test R code</i>
---------------	--------------------

Description

Test R code

Usage

```
test_function(code, ...)
```

Arguments

code	A character vector of R code. If missing the code currently selected in RStudio is documented (If RStudio is used).
...	passed on to askgpt .

Value

A character vector.

token_limits	<i>Max tokens limits of the different models</i>
--------------	--------------------------------------------------

Description

OpenAI's token limits for different models.

Usage

```
token_limits
```

Format

An object of class `data.frame` with 6 rows and 2 columns.

Source

<<https://platform.openai.com/docs/models/overview>>

tutorialise_addin *Turn R code into a tutorial*

Description

'tutorialise_addin()' opens an [RStudio gadget](<https://shiny.rstudio.com/articles/gadgets.html>) and [addin](<http://rstudio.github.io/rstudioaddins/>) that turns selected code into an R Markdown/Quarto Tutorial.

Usage

```
tutorialise_addin()
```

Value

No return value, opens a new file in RStudio

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