

Package: gemini.R (via r-universe)

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Title Interface for 'Google Gemini' API

Version 0.7.0

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Description Provides a comprehensive interface for Google Gemini API, enabling users to access and utilize Gemini Large Language Model (LLM) functionalities directly from R. This package facilitates seamless integration with Google Gemini, allowing for advanced language processing, text generation, and other AI-driven capabilities within the R environment. For more information, please visit https://ai.google.dev/docs/gemini_api_overview.

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Depends R (>= 4.0.0)

URL <https://github.com/jhk0530/gemini.R>

BugReports <https://github.com/jhk0530/gemini.R/issues>

Encoding UTF-8

Imports base64enc, cli, httr2, tools, rstudioapi

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

Config/Needs/website rmarkdown

Config/pak/sysreqs libssl-dev

Repository <https://jhk0530.r-universe.dev>

RemoteUrl <https://github.com/jhk0530/gemini.R>

RemoteRef HEAD

RemoteSha dd47e7c996b223ed76da12442420416e873606ed

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addHistory	<i>Add history for chatting context</i>
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Description

Add history for chatting context

Usage

```
addHistory(history, role = NULL, item = NULL)
```

Arguments

history	The history of chat
role	The role of chat: "user" or "model"
item	The item of chat: "prompt" or "output"

Value

The history of chat

gemini	<i>Generate text from text with Gemini</i>
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Description

Generate text from text with Gemini

Usage

```
gemini(prompt, model = "1.5-flash", temperature = 0.5, maxOutputTokens = 1024)
```

Arguments

prompt	The prompt to generate text from
model	The model to use. Options are '1.5-flash', '1.5-pro', '1.0-pro' and '2.0-flash-exp'. Default is '1.5-flash' see https://ai.google.dev/gemini-api/docs/models/gemini
temperature	The temperature to use. Default is 0.5 value should be between 0 and 2 see https://ai.google.dev/gemini-api/docs/models/generative-models#model-parameters
maxOutputTokens	The maximum number of tokens to generate. Default is 1024 and 100 tokens correspond to roughly 60-80 words.

Value

Generated text

See Also

https://ai.google.dev/docs/gemini_api_overview#text_input

Examples

```
## Not run:  
library(gemini.R)  
setAPI("YOUR_API_KEY")  
gemini("Explain dplyr's mutate function")  
  
## End(Not run)
```

gemini_audio

Analyze audio using Gemini

Description

This function sends audio to the Gemini API and returns a text description.

Usage

```
gemini_audio(  
  audio = NULL,  
  prompt = "Describe this audio",  
  model = "1.5-flash",  
  temperature = 0.5,  
  maxOutputTokens = 1024  
)
```

Arguments

audio	Path to the audio file (default: uses a sample file). Must be an MP3.
prompt	A string describing what to do with the audio.
model	The Gemini model to use ("1.5-flash" or "1.5-pro", "2.0-flash-exp"). Defaults to "1.5-flash".
temperature	Controls the randomness of the generated text (0-2). Defaults to 0.5.
maxOutputTokens	The maximum number of tokens in the generated text. Defaults to 1024.

Value

A character vector containing the Gemini API's response.

Examples

```
## Not run:
library(gemini.R)
setAPI("YOUR_API_KEY")
gemini_image(audio = system.file("docs/reference/helloworld.mp3", package = "gemini.R"))

## End(Not run)
```

gemini_chat	<i>Multi-turn conversations (chat)</i>
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Description

Generate text from text with Gemini

Usage

```
gemini_chat(
  prompt,
  history = list(),
  model = "1.5-flash",
  temperature = 0.5,
  maxOutputTokens = 1024
)
```

Arguments

prompt	The prompt to generate text from
history	history object to keep track of the conversation
model	The model to use. Options are '1.5-flash', '1.5-pro', '1.0-pro' and '2.0-flash-exp'. Default is '1.5-flash' see https://ai.google.dev/gemini-api/docs/models/gemini

temperature The temperature to use. Default is 0.5 value should be between 0 and 2 see <https://ai.google.dev/gemini-api/docs/models/generative-models#model-parameters>

maxOutputTokens The maximum number of tokens to generate. Default is 1024 and 100 tokens correspond to roughly 60-80 words.

Value

Generated text

See Also

https://ai.google.dev/docs/gemini_api_overview#chat

Examples

```
## Not run:
library(gemini.R)
setAPI("YOUR_API_KEY")

chats <- gemini_chat("Pretend you're a snowman and stay in character for each")
print(chats$outputs)

chats <- gemini_chat("What's your favorite season of the year?", chats$history)
print(chats$outputs)

chats <- gemini_chat("How do you think about summer?", chats$history)
print(chats$outputs)

## End(Not run)
```

gemini_image

Generate text from text and image with Gemini

Description

Generate text from text and image with Gemini

Usage

```
gemini_image(
  image = NULL,
  prompt = "Explain this image",
  model = "1.5-flash",
  temperature = 0.5,
  maxOutputTokens = 1024,
  type = "png"
)
```

Arguments

image	The image to generate text
prompt	The prompt to generate text, Default is "Explain this image"
model	The model to use. Options are '1.5-flash', '1.5-pro' and '2.0-flash-exp'. Default is '1.5-flash' see https://ai.google.dev/gemini-api/docs/models/gemini
temperature	The temperature to use. Default is 0.5 value should be between 0 and 2 see https://ai.google.dev/gemini-api/docs/models/generative-models#model-parameters
maxOutputTokens	The maximum number of tokens to generate. Default is 1024 and 100 tokens correspond to roughly 60-80 words.
type	The type of image. Options are 'png', 'jpeg', 'webp', 'heic', 'heif'. Default is 'png'

Value

Generated text

See Also

https://ai.google.dev/docs/gemini_api_overview#text_image_input

Examples

```
## Not run:
library(gemini.R)
setAPI("YOUR_API_KEY")
gemini_image(image = system.file("docs/reference/figures/image.png", package = "gemini.R"))

## End(Not run)
```

gen_docs

Generate Roxygen Documentation

Description

Generates Roxygen2 documentation for an R function based on the currently selected code.

Usage

```
gen_docs(prompt = NULL)
```

Arguments

prompt	A character string specifying additional instructions for the LLM. Defaults to a prompt requesting Roxygen2 documentation without the original code.
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Value

A character string containing the generated Roxygen2 documentation.

gen_tests	<i>Generates unit test code for an R function.</i>
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Description

Generates unit test code for an R function.

Usage

```
gen_tests(prompt = NULL)
```

Arguments

prompt A character string specifying the prompt for the Gemini model. If NULL, a default prompt is used.

Value

#' A character string containing the generated unit test code.

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