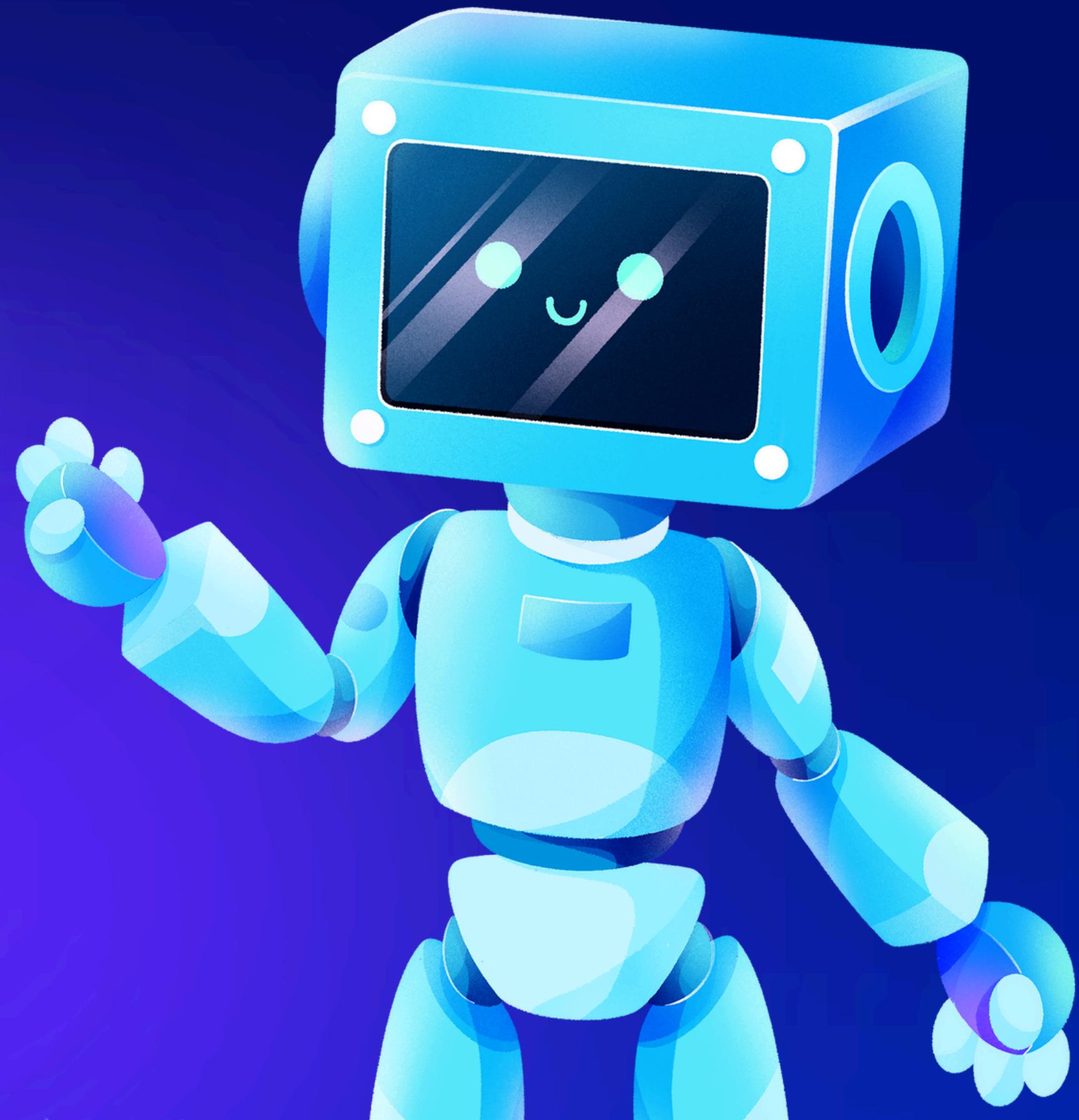


# PROJECT

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# INTRODUCCIÓN

Aplicación de procesamiento de contenido multimodal para el análisis y generación de texto, imágenes y audio



## HUGGING FACE

Biblioteca de modelos pre-entrenados

## OPEN AI

API de familia de modelos de lenguaje GPT

## GEMINI

API de familia de modelos de lenguaje de Google



AIBot



# Hola, ¿En qué puedo ayudarte?

¿Como centrar un  
div?



Ideas para nombres  
de productos



Frases en una  
lengua extranjera



Cómo funciona algo



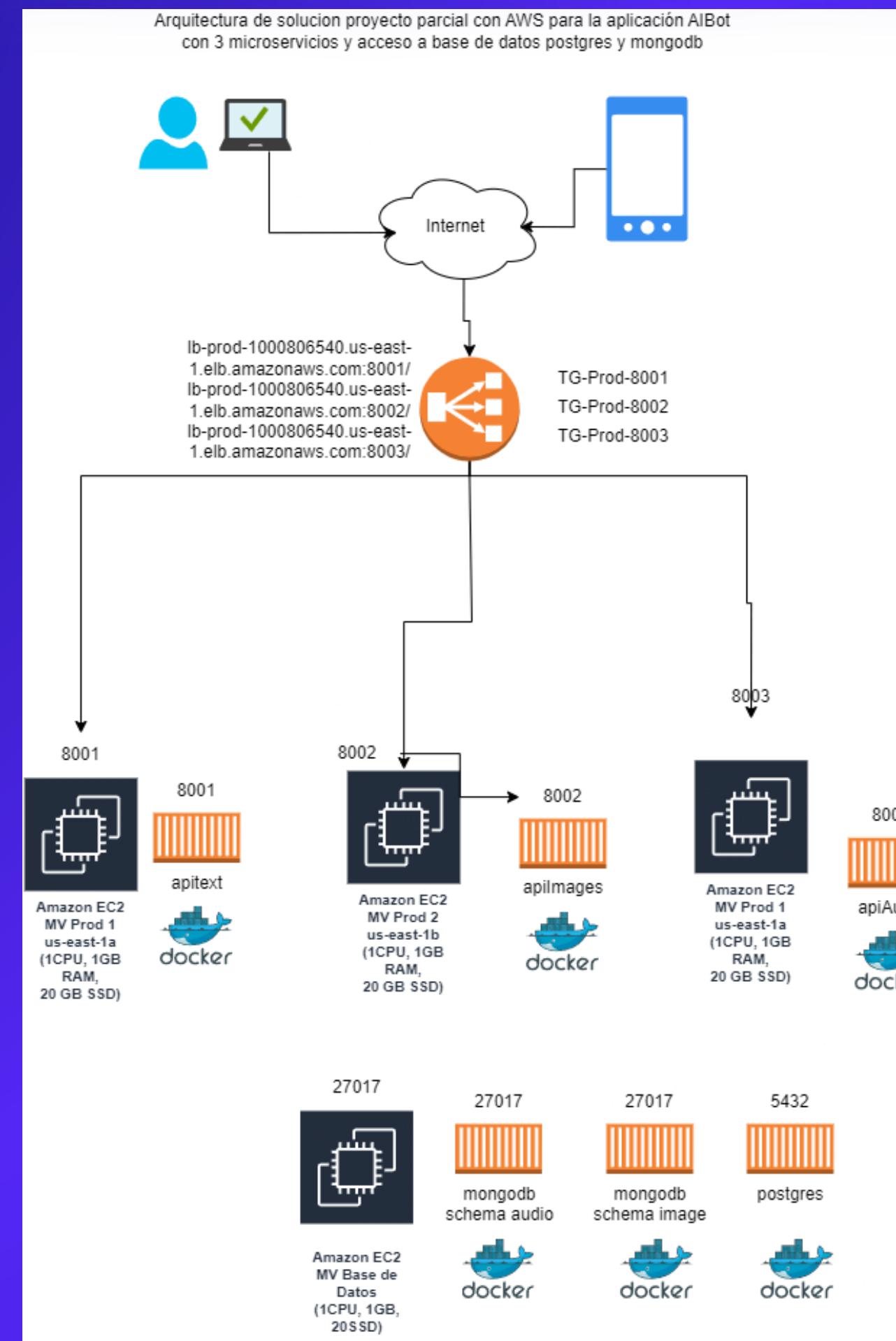
Introduce una petición aqui

Gemini ▾

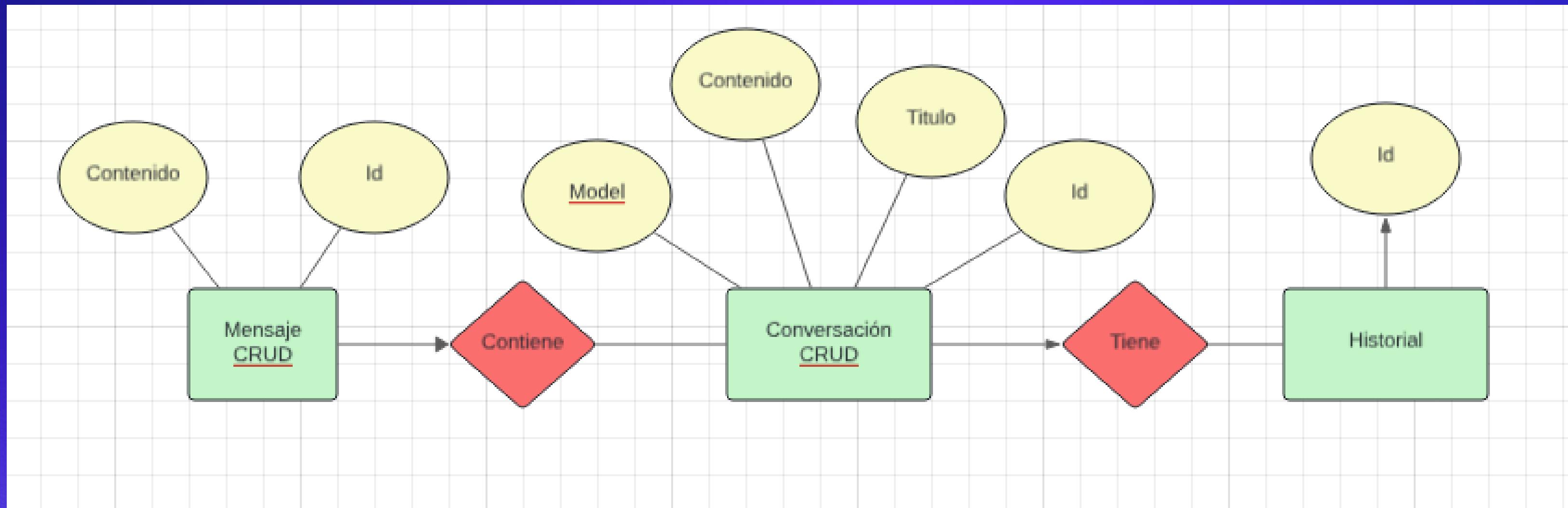
Choose File us...png



# DIAGRAMA DE ARQUITECTURA DE SOLUCIÓN



# DIAGRAMA ENTIDAD - RELACIÓN



# DOCUMENTACIÓN API - TEXTO

**FastAPI** 0.1.0 OAS 3.1

[/openapi.json](#)

**default** ^

GET /messages Read Messages ✓

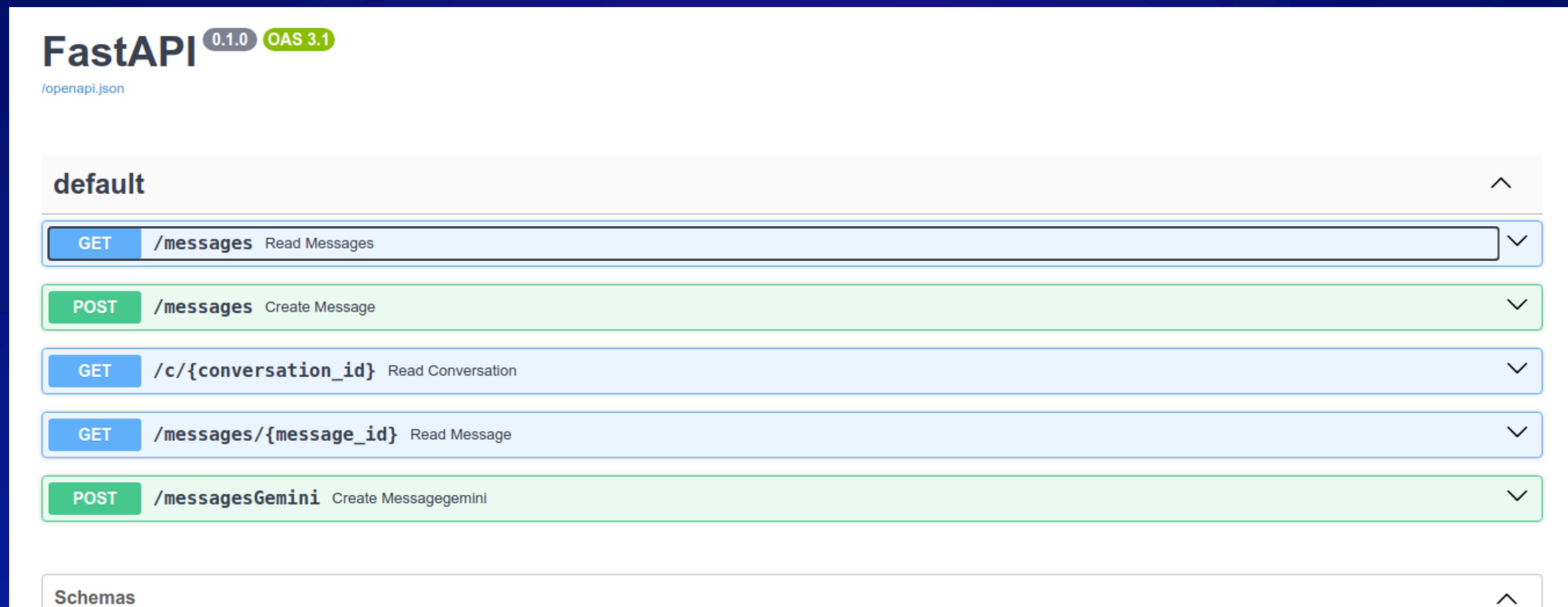
POST /messages Create Message ✓

GET /c/{conversation\_id} Read Conversation ✓

GET /messages/{message\_id} Read Message ✓

POST /messagesGemini Create Messagegemini ✓

Schemas ^



# DOCUMENTACIÓN API - TEXTO

GET /c/{conversation\_id} Read Conversation

Parameters

Name	Description
conversation_id <small>* required</small>	conversation_id

Try it out

Responses

Code	Description	Links
200	Successful Response	No links
422	Validation Error	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

```
[  
  {  
    "content": "string",  
    "conversation_id": 0,  
    "ai_model": "string",  
    "id": 0,  
    "rol": "string"  
  }  
]
```

Media type

application/json

Example Value | Schema

```
{
```

# DOCUMENTACIÓN API - IMAGEN

FastAPI 0.1.0 OAS 3.1

[/openapi.json](#)

**default** ^

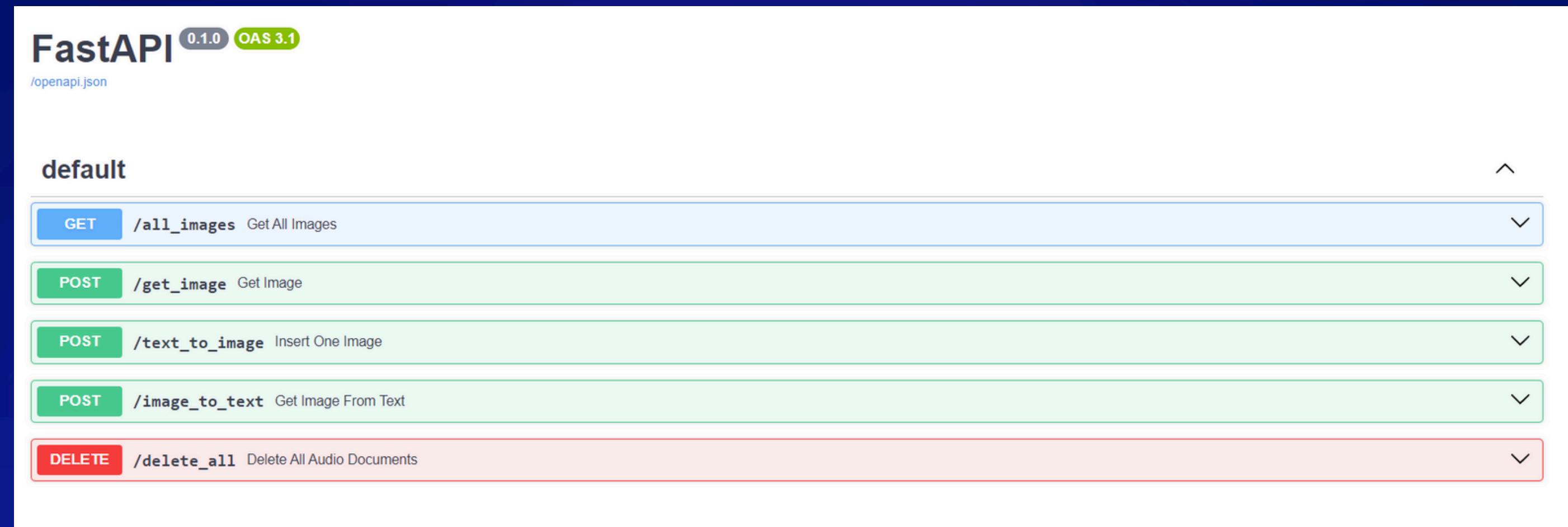
**GET** /all\_images Get All Images ▾

**POST** /get\_image Get Image ▾

**POST** /text\_to\_image Insert One Image ▾

**POST** /image\_to\_text Get Image From Text ▾

**DELETE** /delete\_all Delete All Audio Documents ▾



The screenshot shows a REST API documentation page for a 'GET /all\_images' endpoint. The endpoint is described as 'Get All Images'. The 'Parameters' section indicates 'No parameters'. The 'Responses' section includes a table for code 200, which is described as a 'Successful Response'. The media type is set to 'application/json', which is noted to control the Accept header. An example value is shown as 'string'. There are no links provided for this response.

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value   Schema "string"	No links

No es necesario un body, el endpoint retorna todas las imágenes que existen hasta la fecha dentro de la base de datos, se recibe una lista de documentos asociados a las imágenes

POST /get\_image Get Image

Parameters

No parameters

Responses

Code	Description	Links
200	Successful Response	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

"string"

El body debe contener el id del documento correspondiente a la imagen que se desea obtener y se retorna un archivo en binario de la imagen correspondiente

POST /text\_to\_image Insert One Image

Parameters

No parameters

Try it out ^

Responses

Code	Description	Links
200	Successful Response	No links

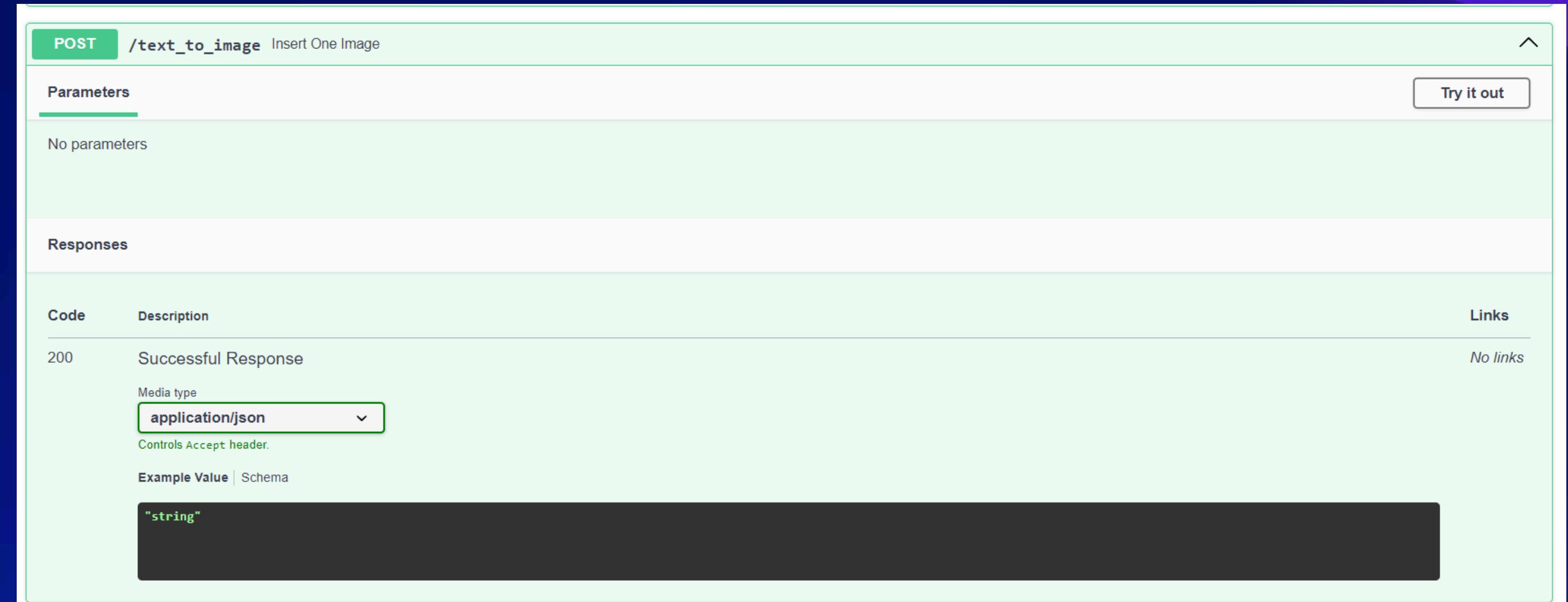
Media type

application/json ▾

Controls Accept header.

Example Value | Schema

"string"



El body debe contener una descripción con la variable inputText, y se retorna un archivo de la imagen generada por IA

The screenshot shows a REST API documentation interface. At the top, it indicates a **POST** method for the endpoint **/image\_to\_text**, which is described as "Get Image From Text". There is a "Try it out" button in the top right corner. Below the method, under the **Parameters** section, it says "No parameters". In the **Responses** section, there is a table for the 200 status code. The table has columns for **Code**, **Description**, and **Links**. The description is "Successful Response". Under "Media type", a dropdown menu is set to "application/json", with a note below stating "Controls Accept header.". There are links for "Example Value" and "Schema". The example value is shown as a blacked-out box containing the text "`"string"`".

El body debe contener una descripción con la variable inputText, además de un archivo imagen y se retorna un texto en respuesta al texto e imagen de entrada

**DELETE** /`delete_all` Delete All Audio Documents

**Parameters**

No parameters

**Responses**

Code	Description	Links
200	Successful Response	No links

Media type

`application/json`

Controls Accept header.

[Example Value](#) | [Schema](#)

`"string"`

El body no es necesario, el endpoint vaciará la base de datos de todos los documentos y archivos en los directorios

# DOCUMENTACIÓN API - AUDIO

**FastAPI** 0.1.0 OAS 3.1

[/openapi.json](#)

**default** ^

**GET** /all\_audio Get All Images ▾

**GET** /get\_audio Get Audio ▾

**POST** /text\_to\_speech Text To Speech ▾

**POST** /create\_music Text To Music ▾

**DELETE** /delete\_all Delete All Audio Documents ▾



The screenshot shows a REST API endpoint documentation for a 'GET' request to '/get\_audio'. The endpoint is titled 'Get Audio'. The 'Parameters' section indicates 'No parameters'. The 'Responses' section lists a single successful response (200) with the description 'Successful Response'. The media type is specified as 'application/json', which is noted to control the Accept header. An example value is shown as 'string'. There are no links provided for this response.

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value   Schema "string"	No links

No es necesario un body, el endpoint retorna los archivos de audio que existen hasta la fecha dentro de la base de datos, se recibe una lista de documentos asociados a las imágenes

GET /get\_audio Get Audio

Parameters

No parameters

Cancel

Execute

Responses

Code	Description	Links
200	Successful Response	No links

Media type

application/json ▾

Controls Accept header.

Example Value | Schema

"string"

This screenshot shows a REST API endpoint configuration. At the top, it's set to GET method and the endpoint is /get\_audio with the operation name Get Audio. Below this, there's a 'Parameters' section which is currently empty, indicated by the message 'No parameters'. On the right side of this section is a red 'Cancel' button. A large blue 'Execute' button is positioned below the parameters. The next section is titled 'Responses' and contains a table with one row. The columns are 'Code', 'Description', and 'Links'. The 'Code' column has the value '200', 'Description' has 'Successful Response', and 'Links' has 'No links'. Under the 'Successful Response' description, there's a 'Media type' dropdown set to 'application/json' with a downward arrow indicating a dropdown menu. Below the dropdown, a note says 'Controls Accept header.' followed by two links: 'Example Value' and 'Schema'. Finally, there's a dark gray box containing the string "string".

El body debe ser un formdata con el id del audio en la base de datos, y se retorna el archivo en binario correspondiente al audio

POST /text\_to\_speech Text To Speech

Parameters

No parameters

Responses

Code	Description	Links
200	Successful Response	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

"string"

El body debe ser un formdata con un nombre para guardar el archivo, y el texto de entrada para poder generar el speech, se retorna un archivo de audio del speech en binario

POST /create\_music Text To Music

Parameters

No parameters

Try it out ^

Responses

Code	Description	Links
200	Successful Response	No links

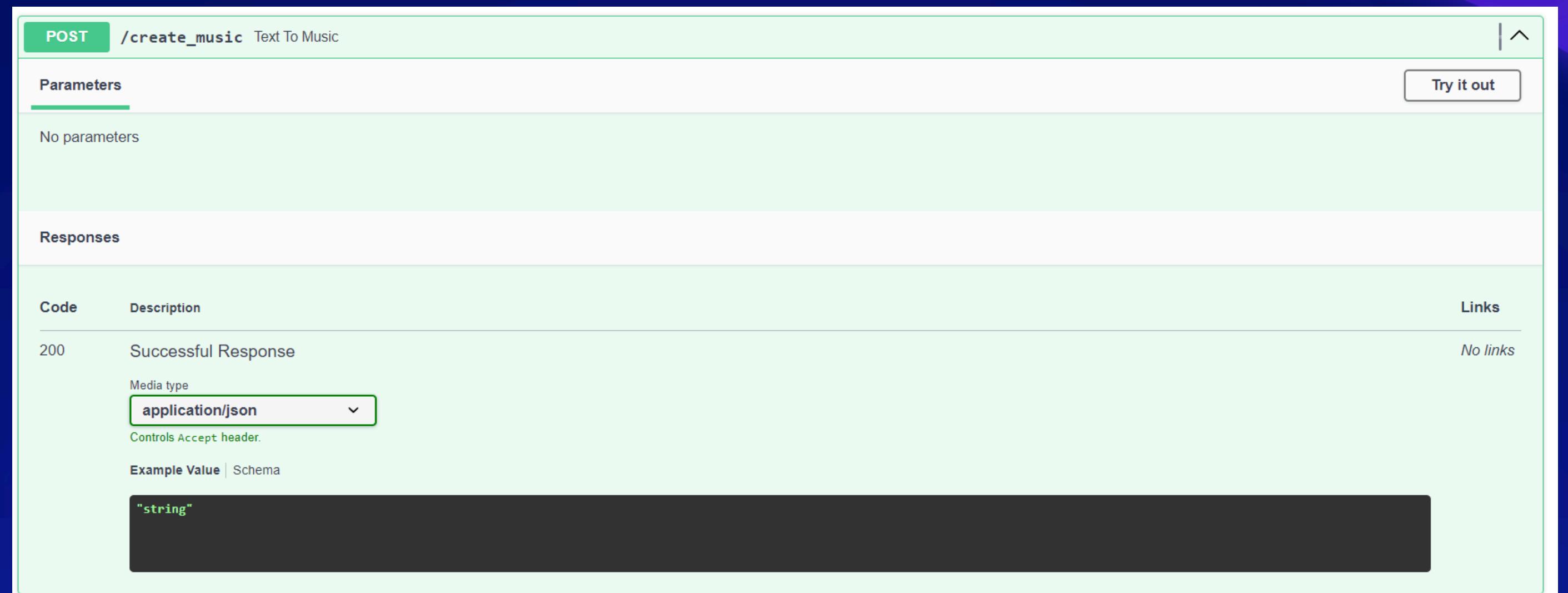
Media type

application/json ▾

Controls Accept header.

Example Value | Schema

"string"



El body debe ser un formdata con un nombre para guardar el archivo, y el texto de entrada para poder generar una canción en base a esa descripción, se retorna un archivo de audio de la canción en binario

**DELETE** /delete\_all Delete All Audio Documents ^

**Parameters**

No parameters Try it out

**Responses**

Code	Description	Links
200	Successful Response	No links

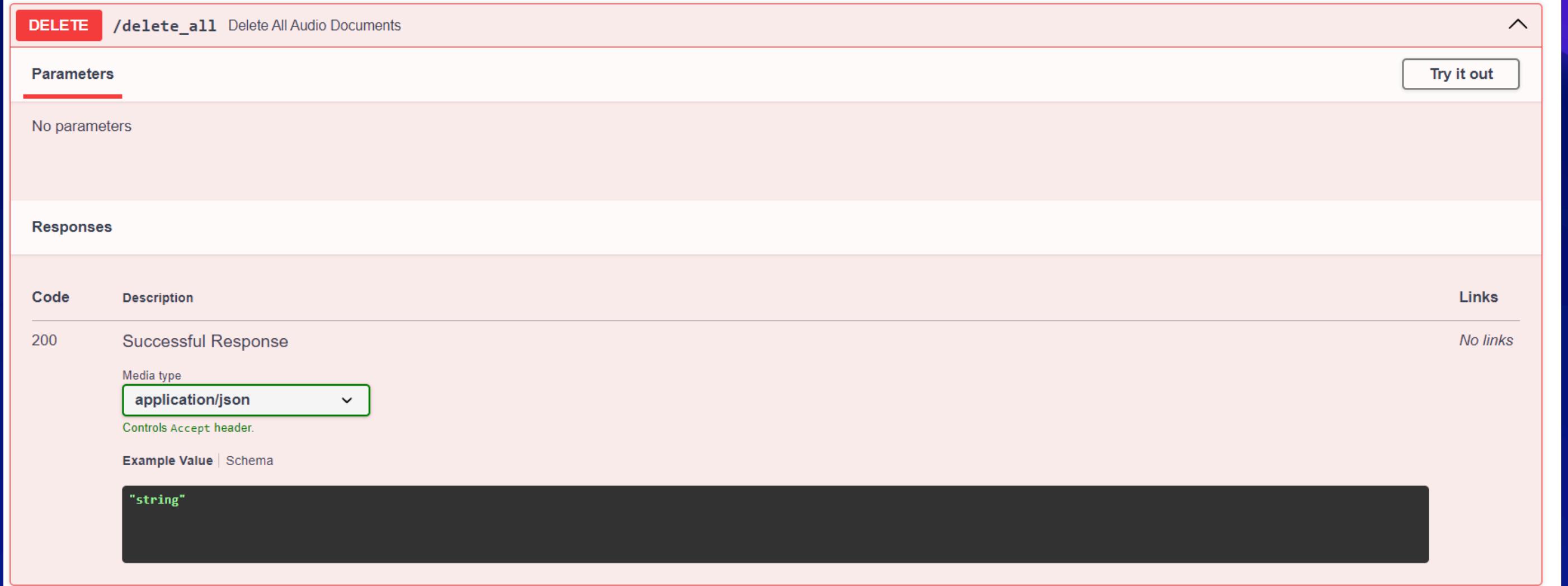
Media type

application/json ▾

Controls Accept header.

Example Value | Schema

"string"



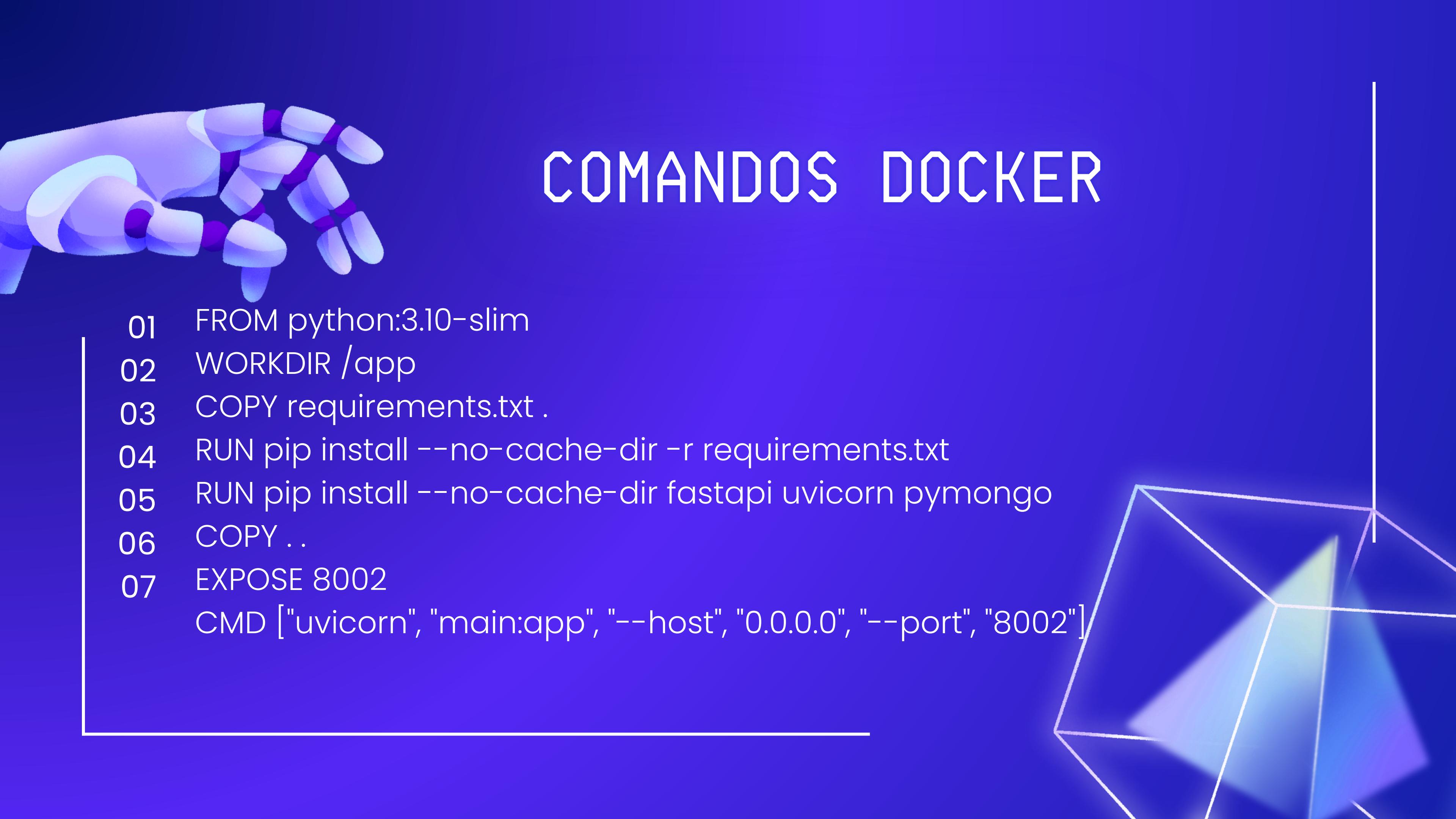
El body no es necesario, el endpoint vaciará la base de datos de todos los documentos y archivos en los directorios



# COMANDOS DOCKER

```
01 FROM python:3.10-slim
02 WORKDIR /app
03 COPY requirements.txt .
04 RUN pip install --no-cache-dir -r requirements.txt
05 RUN pip install --no-cache-dir fastapi uvicorn pymongo
06 COPY ..
07 EXPOSE 8003
CMD ["uvicorn", "main:app", "--host", "0.0.0.0", "--port", "8003"]
```





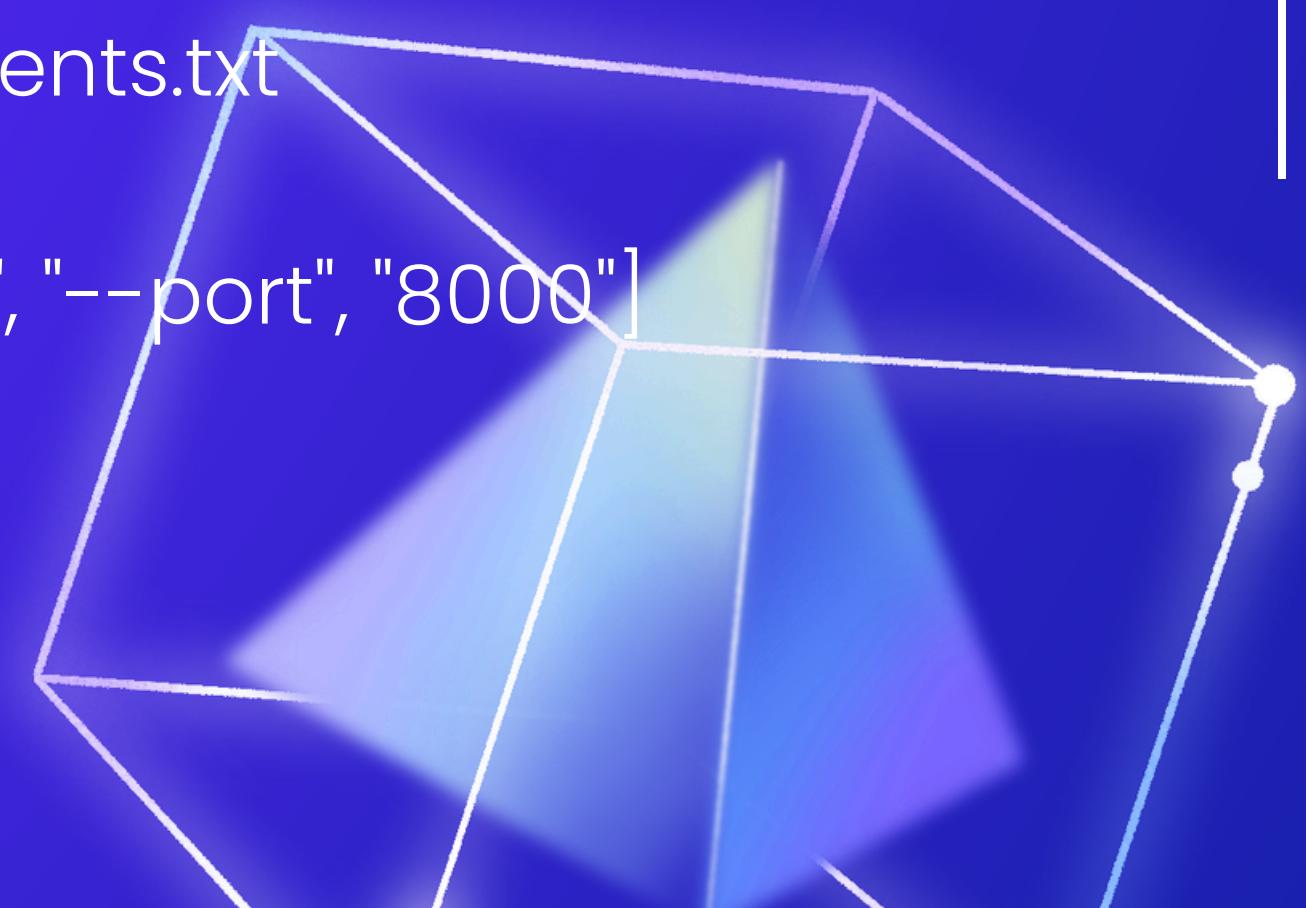
# COMANDOS DOCKER

```
01 FROM python:3.10-slim
02 WORKDIR /app
03 COPY requirements.txt .
04 RUN pip install --no-cache-dir -r requirements.txt
05 RUN pip install --no-cache-dir fastapi uvicorn pymongo
06 COPY ...
07 EXPOSE 8002
CMD ["uvicorn", "main:app", "--host", "0.0.0.0", "--port", "8002"]
```



# COMANDOS DOCKER

```
01 FROM python:3.10-slim
02 WORKDIR /app
03 COPY ..
04 RUN pip install --no-cache-dir -r requirements.txt
05 EXPOSE 8000
06 CMD ["uvicorn", "main:app", "--host", "0.0.0.0", "--port", "8000"]
07
```





# CÓDIGO DE DESPLIEGUE

```
01 version: '3.8'  
02 services:  
03   apiaudio:  
04     build: ./apiaudio  
05     ports:  
06       - "8003:8003"  
07   apiimage:  
08     build: ./apiimage  
09     ports:  
10       - "8002:8002"  
11   apitexto:  
12     build: ./apitexto  
13     ports:  
14       - "8001:8001"
```



DEMO



# GRACIAS!

