



# Tokenizer

## Learn about language model tokenization

OpenAI's large language models (sometimes referred to as GPT's) process text using **tokens**, which are common sequences of characters found in a set of text. The models learn to understand the statistical relationships between these tokens, and excel at producing the next token in a sequence of tokens.

You can use the tool below to understand how a piece of text might be tokenized by a language model, and the total count of tokens in that piece of text.

It's important to note that the exact tokenization process varies between models. Newer models like GPT-3.5 and GPT-4 use a different tokenizer than previous models, and will produce different tokens for the same input text.

**GPT-3.5 & GPT-4**   **GPT-3 (Legacy)**

```
response = openai.ChatCompletion.create(  
    model='gpt-3.5-turbo',  
    messages=conversation,  
    max_tokens=300)  
  
img_prompt = response.choices[0]['message']['content'].strip()  
print ("Los prompts para cada cliente son los siguientes:",
```

Clear

Show example

**Tokens**

**219**

**Characters**

**878**

```
process_text_to_imagen = "en base a la respuesta anterior crea un  
text prompt para cada uno de los clientes, para que pueda ser usado  
como prompt en NightCafe y pueda generar una imagen de cada uno de  
ellos, asignando colores en funcion de su participacion transacc  
ional en cada canal, ej si el cliente opero 50% en canal comercial
```



presentarlo de manera resumida categoría a la que pertenece el cliente y colores asignados "

```
conversation.append ({"role":"user","content":process_text_to_imagen  
)
```

```
response = openai.ChatCompletion.create(  
    model='gpt-3.5-turbo',  
    messages=conversation,  
    max_tokens=300)
```

```
response.choices[0]['message']['content'].strip()  
print ( Los prompts para cada cliente son los siguientes:", img
```

A helpful rule of thumb is that one token generally corresponds to ~4 characters of text for common English text. This translates to roughly  $\frac{3}{4}$  of a word (so 100 tokens  $\approx$  75 words).

If you need a programmatic interface for tokenizing text, check out our [tiktoken](#) package for Python. For JavaScript, the community-supported [@dbdq/tiktoken](#) package works with most GPT models.