

```
!pip install transformers
```

```
Requirement already satisfied: transformers in /usr/local/lib/python3.11/dist-packages (4.51.3)
Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from transformers) (3.18.0)
Requirement already satisfied: huggingface-hub<1.0,>=0.30.0 in /usr/local/lib/python3.11/dist-packages (from transformers) (0.31.2)
Requirement already satisfied: numpy>=1.17 in /usr/local/lib/python3.11/dist-packages (from transformers) (2.0.2)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.11/dist-packages (from transformers) (24.2)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.11/dist-packages (from transformers) (6.0.2)
Requirement already satisfied: regex!=2019.12.17 in /usr/local/lib/python3.11/dist-packages (from transformers) (2024.11.6)
Requirement already satisfied: requests in /usr/local/lib/python3.11/dist-packages (from transformers) (2.32.3)
Requirement already satisfied: tokenizers<0.22,>=0.21 in /usr/local/lib/python3.11/dist-packages (from transformers) (0.21.1)
Requirement already satisfied: safetensors>=0.4.3 in /usr/local/lib/python3.11/dist-packages (from transformers) (0.5.3)
Requirement already satisfied: tqdm>=4.27 in /usr/local/lib/python3.11/dist-packages (from transformers) (4.67.1)
Requirement already satisfied: fsspec>=2023.5.0 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub<1.0,>=0.30.0->transformers) (2024.11.6)
Requirement already satisfied: typing-extensions>=3.7.4.3 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub<1.0,>=0.30.0->transformers) (4.6.0)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->transformers) (3.4.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-packages (from requests->transformers) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests->transformers) (2.4.0)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests->transformers) (2025.4.26)
```

```
from transformers import pipeline
```

```
a = pipeline("sentiment-analysis")
```

```
No model was supplied, defaulted to distilbert/distilbert-base-uncased-finetuned-sst-2-english and revision 714eb0f (https://huggingface.co/distilbert/distilbert-base-uncased-finetuned-sst-2-english).
Using a pipeline without specifying a model name and revision in production is not recommended.
/usr/local/lib/python3.11/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:
The secret `HF_TOKEN` does not exist in your Colab secrets.
To authenticate with the Hugging Face Hub, create a token in your settings tab (https://huggingface.co/settings/tokens), set it as secret in your Colab secrets.
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.
warnings.warn(
config.json: 100% 629/629 [00:00<00:00, 19.0kB/s]
Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download. For better performance, please install the 'hf_xet' package.
WARNING:huggingface_hub.file_download:Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download.
model.safetensors: 100% 268M/268M [00:01<00:00, 147MB/s]
tokenizer_config.json: 100% 48.0/48.0 [00:00<00:00, 1.24kB/s]
vocab.txt: 100% 232k/232k [00:00<00:00, 3.18MB/s]
Device set to use cpu
```

```
text = input("Enter the text: ")
print(a(text))
```

```
Enter the text: good
[{'label': 'POSITIVE', 'score': 0.9998161196708679}]
```

```
gen = pipeline("text-generation")
```

```
No model was supplied, defaulted to openai-community/gpt2 and revision 607a30d (https://huggingface.co/openai-community/gpt2).
Using a pipeline without specifying a model name and revision in production is not recommended.
config.json: 100% 665/665 [00:00<00:00, 12.2kB/s]
Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download. For better performance, please install the 'hf_xet' package.
WARNING:huggingface_hub.file_download:Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download.
model.safetensors: 100% 548M/548M [00:04<00:00, 128MB/s]
generation_config.json: 100% 124/124 [00:00<00:00, 10.5kB/s]
tokenizer_config.json: 100% 26.0/26.0 [00:00<00:00, 1.44kB/s]
vocab.json: 100% 1.04M/1.04M [00:00<00:00, 5.16MB/s]
merges.txt: 100% 456k/456k [00:00<00:00, 7.16MB/s]
tokenizer.json: 100% 1.36M/1.36M [00:00<00:00, 19.4MB/s]
Device set to use cpu
```

```
text = input("Enter the text: ")
t = gen(text,max_length = 200)
```

Enter the text: hello  
 Truncation was not explicitly activated but `max\_length` is provided a specific value, please use `truncation=True` to explicitly truncate  
 Setting `pad\_token\_id` to `eos\_token\_id`:50256 for open-end generation.

```
print(t[0].get('generated_text'))
```

hello-creek-creek (and by extension, to the East)

When people get drunk on their way to work, they have to pay for it (i.e. \$1.00). Why? Because drunk driving is a social problem.

This is a big issue in my own state of Massachusetts. People who have drunk in the area are being held to higher standards of behavior.

In the state of Massachusetts, if you're involved in a DWI, you are supposed to pay the fine (which is also a fine if you're under 21).

This is why you have to pay the fine.

In Connecticut

A car with a \$70,000 ticket (and \$40,000 in local taxes) will run the \$20 in legal insurance tax, but if you pay the \$20 fine you get \$2

And the police will go after you. You take

```
n = pipeline("ner")
```

No model was supplied, defaulted to dbmdz/bert-large-cased-finetuned-conll03-english and revision 4c53496 (<https://huggingface.co/dbmdz/bert-large-cased-finetuned-conll03-english>)  
 Using a pipeline without specifying a model name and revision in production is not recommended.

config.json: 100% 998/998 [00:00<00:00, 55.9kB/s]

Xet Storage is enabled for this repo, but the 'hf\_xet' package is not installed. Falling back to regular HTTP download. For better performance  
 WARNING:huggingface\_hub.file\_download:Xet Storage is enabled for this repo, but the 'hf\_xet' package is not installed. Falling back to regular HTTP download.

model.safetensors: 100% 1.33G/1.33G [00:10<00:00, 84.3MB/s]

Some weights of the model checkpoint at dbmdz/bert-large-cased-finetuned-conll03-english were not used when initializing BertForTokenClassification  
 - This IS expected if you are initializing BertForTokenClassification from the checkpoint of a model trained on another task or with another architecture  
 - This IS NOT expected if you are initializing BertForTokenClassification from the checkpoint of a model that you expect to be exactly identical to

tokenizer\_config.json: 100% 60.0/60.0 [00:00<00:00, 3.62kB/s]

vocab.txt: 100% 213k/213k [00:00<00:00, 16.8MB/s]

Device set to use cpu

```
text = input("Enter the text: ")
result = n(text)
result
```

Enter the text: good morning  
 []

```
qa = pipeline("question-answering")
```

No model was supplied, defaulted to distilbert/distilbert-base-cased-distilled-squad and revision 564e9b5 (<https://huggingface.co/distilbert/distilbert-base-cased-distilled-squad>)  
 Using a pipeline without specifying a model name and revision in production is not recommended.

config.json: 100% 473/473 [00:00<00:00, 40.8kB/s]

Xet Storage is enabled for this repo, but the 'hf\_xet' package is not installed. Falling back to regular HTTP download. For better performance  
 WARNING:huggingface\_hub.file\_download:Xet Storage is enabled for this repo, but the 'hf\_xet' package is not installed. Falling back to regular HTTP download.

model.safetensors: 100% 261M/261M [00:01<00:00, 237MB/s]

tokenizer\_config.json: 100% 49.0/49.0 [00:00<00:00, 2.71kB/s]

vocab.txt: 100% 213k/213k [00:00<00:00, 16.1MB/s]

tokenizer.json: 100% 436k/436k [00:00<00:00, 32.5MB/s]

Device set to use cpu

```
c = '''Bitty bought some butter, but the butter was bitter butter.
so,Bitty bought some better butter to make the bitter butter better.'''
```

```
q = "what does Bitty bought?"
```

```
result = qa(question = q, context = c)
print(result)
```

```
{'score': 0.18400101363658905, 'start': 75, 'end': 93, 'answer': 'some better butter'}
```

```
d = '''In the 16th century, an age of great marine and terrestrial exploration, Ferdinand Magellan led the first expedition to sail around t
A papal decree of 1493 had assigned all land in the New World west of 50 degrees W longitude to Spain and all the land east of that line to
One ship deserted while in this passage and returned to Spain, so fewer sailors were privileged to gaze at that first panorama of the Pacifi
Later, Magellan became involved in an insular conflict in the Philippines and was killed in a tribal battle. Only one ship and 17 sailors un

b = "The 16th century was an age of great _____ exploration."
```

```
result = qa(question = b, context = d)
print(result)
```

```
{'score': 0.22924160957336426, 'start': 31, 'end': 71, 'answer': 'great marine and terrestrial exploration'}
```

```
s = pipeline("summarization")
```

```
No model was supplied, defaulted to sshleifer/distilbart-cnn-12-6 and revision a4f8f3e (https://huggingface.co/sshleifer/distilbart-cnn-12-6).
Using a pipeline without specifying a model name and revision in production is not recommended.
```

```
config.json: 100% 1.80k/1.80k [00:00<00:00, 105kB/s]
pytorch_model.bin: 100% 1.22G/1.22G [00:08<00:00, 73.7MB/s]
model.safetensors: 55% 671M/1.22G [00:43<00:26, 20.9MB/s]
tokenizer_config.json: 100% 26.0/26.0 [00:00<00:00, 1.77kB/s]
vocab.json: 100% 899k/899k [00:00<00:00, 43.6MB/s]
merges.txt: 100% 456k/456k [00:00<00:00, 7.10MB/s]
Device set to use cpu
```

```
t = '''In the 16th century, an age of great marine and terrestrial exploration, Ferdinand Magellan led the first expedition to sail around t
A papal decree of 1493 had assigned all land in the New World west of 50 degrees W longitude to Spain and all the land east of that line to
One ship deserted while in this passage and returned to Spain, so fewer sailors were privileged to gaze at that first panorama of the Pacifi
Later, Magellan became involved in an insular conflict in the Philippines and was killed in a tribal battle. Only one ship and 17 sailors un
```

```
result = s(t)
result[0].get('summary_text')
```

```
' Ferdinand Magellan led the first expedition to sail around the world in 1519 . Magellan crossed the meridian now known as the Interna
tional Date Line in the early spring of 1521 after 98 days on the Pacific Ocean . Only one ship and 17 sailors under the command of the
Basque navigator Elcano survived .'
```

```
u = pipeline('fill-mask')
```

```
No model was supplied, defaulted to distilbert/distilroberta-base and revision fb53ab8 (https://huggingface.co/distilbert/distilroberta-base).
Using a pipeline without specifying a model name and revision in production is not recommended.
```

```
config.json: 100% 480/480 [00:00<00:00, 21.9kB/s]
Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download. For better perfom
WARNING:huggingface_hub.file_download:Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to r
model.safetensors: 100% 331M/331M [00:24<00:00, 9.73MB/s]
Some weights of the model checkpoint at distilbert/distilroberta-base were not used when initializing RobertaForMaskedLM: ['roberta.pool
- This IS expected if you are initializing RobertaForMaskedLM from the checkpoint of a model trained on another task or with another arc
- This IS NOT expected if you are initializing RobertaForMaskedLM from the checkpoint of a model that you expect to be exactly identical
tokenizer_config.json: 100% 25.0/25.0 [00:00<00:00, 1.60kB/s]
vocab.json: 100% 899k/899k [00:00<00:00, 7.32MB/s]
merges.txt: 100% 456k/456k [00:00<00:00, 3.46MB/s]
tokenizer.json: 100% 1.36M/1.36M [00:00<00:00, 7.15MB/s]
Device set to use cpu
```

```
result = u("iam studying <mask> in university")
```

result

```
↔ [{ 'score': 0.15748204290866852,
    'token': 8128,
    'token_str': ' journalism',
    'sequence': 'iam studying journalism in university'},
  { 'score': 0.048706818372011185,
    'token': 16797,
    'token_str': ' psychology',
    'sequence': 'iam studying psychology in university'},
  { 'score': 0.04558347538113594,
    'token': 10561,
    'token_str': ' philosophy',
    'sequence': 'iam studying philosophy in university'},
  { 'score': 0.04191136732697487,
    'token': 35638,
    'token_str': ' sociology',
    'sequence': 'iam studying sociology in university'},
  { 'score': 0.03656909987330437,
    'token': 25634,
    'token_str': ' mathematics',
    'sequence': 'iam studying mathematics in university'}]
```