

```
!pip install nltk spacy  
!python -m spacy download en_core_web_sm
```

```
Requirement already satisfied: nltk in /usr/local/lib/python3.12/dist-packages (Requirement already satisfied: spacy in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: click in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: joblib in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: regex>=2021.8.3 in /usr/local/lib/python3.12/dist  
Requirement already satisfied: tqdm in /usr/local/lib/python3.12/dist-packages (Requirement already satisfied: spacy-legacy<3.1.0,>=3.0.11 in /usr/local/lib/pyt  
Requirement already satisfied: spacy-loggers<2.0.0,>=1.0.0 in /usr/local/lib/pyt  
Requirement already satisfied: murmurhash<1.1.0,>=0.28.0 in /usr/local/lib/pythc  
Requirement already satisfied: cymem<2.1.0,>=2.0.2 in /usr/local/lib/python3.12/  
Requirement already satisfied: preshed<3.1.0,>=3.0.2 in /usr/local/lib/python3.1  
Requirement already satisfied: thinc<8.4.0,>=8.3.4 in /usr/local/lib/python3.12/  
Requirement already satisfied: wasabi<1.2.0,>=0.9.1 in /usr/local/lib/python3.12  
Requirement already satisfied: srsly<3.0.0,>=2.4.3 in /usr/local/lib/python3.12/  
Requirement already satisfied: catalogue<2.1.0,>=2.0.6 in /usr/local/lib/python3  
Requirement already satisfied: weasel<0.5.0,>=0.4.2 in /usr/local/lib/python3.12  
Requirement already satisfied: typer-slim<1.0.0,>=0.3.0 in /usr/local/lib/python  
Requirement already satisfied: numpy>=1.19.0 in /usr/local/lib/python3.12/dist-p  
Requirement already satisfied: requests<3.0.0,>=2.13.0 in /usr/local/lib/python3  
Requirement already satisfied: pydantic!=1.8,!<1.8.1,<3.0.0,>=1.7.4 in /usr/loc  
Requirement already satisfied: jinja2 in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: setuptools in /usr/local/lib/python3.12/dist-pack  
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.12/dist  
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.  
Requirement already satisfied: pydantic-core==2.41.4 in /usr/local/lib/python3.1  
Requirement already satisfied: typing-extensions>=4.14.1 in /usr/local/lib/pythc  
Requirement already satisfied: typing-inspection>=0.4.2 in /usr/local/lib/python  
Requirement already satisfied: charset_normalizer<4,>=2 in /usr/local/lib/python  
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.12/dist-pa  
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.12/d  
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.12/d  
Requirement already satisfied: bliss<1.4.0,>=1.3.0 in /usr/local/lib/python3.12/d  
Requirement already satisfied: confection<1.0.0,>=0.0.1 in /usr/local/lib/python  
Requirement already satisfied: cloudpathlib<1.0.0,>=0.7.0 in /usr/local/lib/pyth  
Requirement already satisfied: smart-open<8.0.0,>=5.2.1 in /usr/local/lib/python  
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.12/dist  
Requirement already satisfied: wrapt in /usr/local/lib/python3.12/dist-packages  
Collecting en-core-web-sm==3.8.0
```

Downloading https://github.com/explosion/spacy-models/releases/download/en_core_web_sm-3.8.0/en_core_web_sm-3.8.0.tar.gz 12.8/12.8 MB 101.8 MB/s eta 0:00:00

✓ Download and installation successful

You can now load the package via `spacy.load('en_core_web_sm')`

⚠ Restart to reload dependencies

If you are in a Jupyter or Colab notebook, you may need to restart Python in order to load all the package's dependencies. You can do this by selecting the 'Restart kernel' or 'Restart runtime' option.

```
text = "Artificial Intelligence is transforming industries across the world."
```

```
# Count number of words
words = text.split()
word_count = len(words)

print("Number of words:", word_count)
```

```
Number of words: 8
```

```
# Convert text to lowercase
lowercase_text = text.lower()

print("Lowercase text:")
print(lowercase_text)
```

```
Lowercase text:
artificial intelligence is transforming industries across the world.
```