```
!pip install nltk spacy
```

```
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/pytho
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/loca
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/pytho
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: blis<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
```

writing a sample paragraph

```
sample_paragraph = """Natural Language Processing (NLP) is a field of artificia
print(sample_paragraph)
```

```
Natural Language Processing (NLP) is a field of artificial intelligence that foc
```

Count the number of words

```
words = sample_paragraph.split()
word_count = len(words)
print(f"The paragraph contains {word_count} words.")
```

```
The paragraph contains 50 words.
```

Convert the entire text to lowercase

```
lowercase_paragraph = sample_paragraph.lower()
print(lowercase_paragraph)
```

```
natural language processing (nlp) is a field of artificial intelligence that foc
```