```
!pip install nltk spacy #install the nltk and spacy libraries
```

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

```
# Import libraries
import nltk
import spacy
```

```
# Sample text (news snippet)
text = """
India has taken a significant step toward digital transformation.
Artificial Intelligence and Machine Learning are being widely adopted
across industries to improve efficiency and innovation.
"""
```

```python
# Split text into words
words = text.split()

# Count words
word_count = len(words)

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

```
Number of words: 25
```

```python
# Convert text to lowercase
lower_text = text.lower()

print("Lowercase Text:")
print(lower_text)
```

```
Lowercase Text:

india has taken a significant step toward digital transformation.
artificial intelligence and machine learning are being widely adopted
across industries to improve efficiency and innovation.
```