

```
#excller day-6(212)
!pip install nltk spacy
import spacy
from nltk.corpus import stopwords
import nltk
import re
nltk.download('stopwords')
nlp = spacy.load("en_core_web_sm")
def process_text(text):
    text = text.lower()
    text = re.sub(r'[^\w\s]', '', text)
    doc = nlp(text)
    stop_words = set(stopwords.words('english'))
    filtered_words = [token.text for token in doc if token.text not in stop_words]
    return " ".join(filtered_words)
text = "Write a Python program to using NLTK and Spacy. Convert text to lowercase. Remove stopwords using NLTK."
processed_text = process_text(text)
print(processed_text)
```

```
Requirement already satisfied: nltk in /usr/local/lib/python3.11/dist-packages (3.9.1)
Requirement already satisfied: spacy in /usr/local/lib/python3.11/dist-packages (3.7.5)
Requirement already satisfied: click in /usr/local/lib/python3.11/dist-packages (from nltk) (8.1.8)
Requirement already satisfied: joblib in /usr/local/lib/python3.11/dist-packages (from nltk) (1.4.2)
Requirement already satisfied: regex<=2021.8.3 in /usr/local/lib/python3.11/dist-packages (from nltk) (2024.11.6)
Requirement already satisfied: tqdm in /usr/local/lib/python3.11/dist-packages (from nltk) (4.67.1)
Requirement already satisfied: spacy-legacy<3.1.0,>=3.0.11 in /usr/local/lib/python3.11/dist-packages (from spacy) (3.0.12)
Requirement already satisfied: spacy-loggers<2.0.0,>=1.0.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (1.0.5)
Requirement already satisfied: murmurhash<1.1.0,>=0.28.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (1.0.12)
Requirement already satisfied: cymem<2.1.0,>=2.0.2 in /usr/local/lib/python3.11/dist-packages (from spacy) (2.0.11)
Requirement already satisfied: preshed<3.1.0,>=3.0.2 in /usr/local/lib/python3.11/dist-packages (from spacy) (3.0.9)
Requirement already satisfied: thinc<8.3.0,>=8.2.2 in /usr/local/lib/python3.11/dist-packages (from spacy) (8.2.5)
Requirement already satisfied: wasabi<1.2.0,>=0.9.1 in /usr/local/lib/python3.11/dist-packages (from spacy) (1.1.3)
Requirement already satisfied: srsly<3.0.0,>=2.4.3 in /usr/local/lib/python3.11/dist-packages (from spacy) (2.5.1)
Requirement already satisfied: catalogue<2.1.0,>=2.0.6 in /usr/local/lib/python3.11/dist-packages (from spacy) (2.0.10)
Requirement already satisfied: weasel<0.5.0,>=0.1.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (0.4.1)
Requirement already satisfied: typer<1.0.0,>=0.3.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (0.15.1)
Requirement already satisfied: requests<3.0.0,>=2.13.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (2.32.3)
Requirement already satisfied: pydantic!=1.8,!1.8.1,<3.0.0,>=1.7.4 in /usr/local/lib/python3.11/dist-packages (from spacy) (2.10.6)
Requirement already satisfied: Jinja2 in /usr/local/lib/python3.11/dist-packages (from spacy) (3.1.5)
Requirement already satisfied: setuptools in /usr/local/lib/python3.11/dist-packages (from spacy) (75.1.0)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (24.2)
Requirement already satisfied: langcodes<4.0.0,>=3.2.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (3.5.0)
Requirement already satisfied: numpy>=1.19.0 in /usr/local/lib/python3.11/dist-packages (from spacy) (1.26.4)
Requirement already satisfied: language-data>=1.2 in /usr/local/lib/python3.11/dist-packages (from langcodes<4.0.0,>=3.2.0->spacy)
Requirement already satisfied: annotated-types==0.6.0 in /usr/local/lib/python3.11/dist-packages (from pydantic!=1.8,!1.8.1,<3.0.0,>=1.7.4->spacy)
Requirement already satisfied: pydantic-core==2.27.2 in /usr/local/lib/python3.11/dist-packages (from pydantic!=1.8,!1.8.1,<3.0.0,>=1.7.4->spacy)
Requirement already satisfied: typing-extensions>=4.12.2 in /usr/local/lib/python3.11/dist-packages (from pydantic!=1.8,!1.8.1,<3.0.0,>=1.7.4->spacy)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests<3.0.0,>=2.13.0->spacy)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-packages (from requests<3.0.0,>=2.13.0->spacy) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests<3.0.0,>=2.13.0->spacy)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests<3.0.0,>=2.13.0->spacy)
Requirement already satisfied: blis<0.8.0,>=0.7.8 in /usr/local/lib/python3.11/dist-packages (from thinc<8.3.0,>=8.2.2->spacy) (0.7)
Requirement already satisfied: confection<1.0.0,>=0.0.1 in /usr/local/lib/python3.11/dist-packages (from thinc<8.3.0,>=8.2.2->spacy)
Requirement already satisfied: shellingham>=1.3.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0.0,>=0.3.0->spacy) (1.5)
Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0.0,>=0.3.0->spacy) (13.9.4)
Requirement already satisfied: cloudpathlib<1.0.0,>=0.7.0 in /usr/local/lib/python3.11/dist-packages (from weasel<0.5.0,>=0.1.0->spacy)
Requirement already satisfied: smart-open<8.0.0,>=5.2.1 in /usr/local/lib/python3.11/dist-packages (from weasel<0.5.0,>=0.1.0->spacy)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.11/dist-packages (from Jinja2->spacy) (3.0.2)
Requirement already satisfied: marisa-trie>=1.1.0 in /usr/local/lib/python3.11/dist-packages (from language-data>=1.2->langcodes<4.0.0,>=3.2.0->spacy)
Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0.0,>=0.3.0->spacy)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0.0,>=0.3.0->spacy)
Requirement already satisfied: wrapt in /usr/local/lib/python3.11/dist-packages (from smart-open<8.0.0,>=5.2.1->weasel<0.5.0,>=0.1.0->spacy)
Requirement already satisfied: mdurl~=0.1 in /usr/local/lib/python3.11/dist-packages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer<1.0.0,>=0.3.0->spacy)
[nltk_data] Downloading package stopwords to /root/nltk_data...
[nltk_data] Unzipping corpora/stopwords.zip.
write python program using nltk spacy convert text lowercase remove stopwords using nltk
```

