



```
import spacy
import pandas as pd

# import en_core_web_sm
import spacy.cli
spacy.cli.download("en_core_web_sm")

# nlp = en_core_web_sm.load()
```

 **✓ 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.

```
# Load the English language model
# nlp = en_core_web_sm.load()
nlp = spacy.load('en_core_web_sm')
```

```
data = pd.read_csv('clean_train.csv')
data = data.head(10)
```

```
def perform_morphological_analysis(text):
    doc = nlp(text)
    analyzed_tokens = []
```


```
    for token in doc:
        analyzed_tokens.append({
            'Token': token.text,
            'Lemma': token.lemma_,
            'POS': token.pos_
        })
```

```
    return analyzed_tokens
```

```
# Iterate through the dataset and perform morphological analysis for each synopsis
```

```
for index, row in data.iterrows():
    synopsis = row['synopsis']
    analyzed_tokens = perform_morphological_analysis(synopsis)

    # Print the results for the first few tokens in the synopsis
    print(f"Synopsis {index + 1}:")
    for token_info in analyzed_tokens[:5]: # Display the first 5 tokens
        print(f"Token: {token_info['Token']}, Lemma: {token_info['Lemma']}, POS: {token_info['POS']}")
    print("\n")
```

 Synopsis 1:
 Token: A, Lemma: a, POS: DET
 Token: young, Lemma: young, POS: ADJ
 Token: scriptwriter, Lemma: scriptwriter, POS: NOUN
 Token: starts, Lemma: start, POS: VERB
 Token: bringing, Lemma: bring, POS: VERB

Synopsis 2:
 Token: A, Lemma: a, POS: DET
 Token: director, Lemma: director, POS: NOUN
 Token: and, Lemma: and, POS: CCONJ
 Token: her, Lemma: her, POS: PRON
 Token: friends, Lemma: friend, POS: NOUN

Synopsis 3:
 Token: This, Lemma: this, POS: PRON
 Token: is, Lemma: be, POS: AUX
 Token: an, Lemma: an, POS: DET
 Token: educational, Lemma: educational, POS: ADJ
 Token: video, Lemma: video, POS: NOUN

Synopsis 4:
 Token: Scientists, Lemma: scientist, POS: NOUN
 Token: working, Lemma: work, POS: VERB
 Token: in, Lemma: in, POS: ADP
 Token: the, Lemma: the, POS: DET
 Token: Austrian, Lemma: Austrian, POS: PROPN

Synopsis 5:

Token: Buy, Lemma: buy, POS: VERB
Token: Day, Lemma: Day, POS: PROP
Token: -, Lemma: -, POS: PUNCT
Token: Four, Lemma: four, POS: NUM
Token: Men, Lemma: Men, POS: PROP

Synopsis 6:

Token: A, Lemma: a, POS: DET
Token: video, Lemma: video, POS: NOUN
Token: voyeur, Lemma: voyeur, POS: NOUN
Token: stalks, Lemma: stalk, POS: VERB
Token: women, Lemma: woman, POS: NOUN

Synopsis 7:

Token: Twin, Lemma: Twin, POS: PROP
Token: brothers, Lemma: brother, POS: NOUN
Token: separated, Lemma: separate, POS: VERB
Token: at, Lemma: at, POS: ADP
Token: birth, Lemma: birth, POS: NOUN

Synopsis 8:

Token: A, Lemma: a, POS: DET