

```
In [1]: import spacy
```

```
In [2]: nlp = spacy.load('en_core_web_sm')
```

```
In [5]: doc1 = nlp(u"I am a runner running a race because I love to run since I
```

```
In [6]: for token in doc1:
        print(token.text, '\t', token.pos_, '\t', token.lemma, '\t', token.l
```

I	PRON	561228191312463089	-PRON-
am	VERB	10382539506755952630	be
a	DET	11901859001352538922	a
runner	NOUN	12640964157389618806	runner
running	VERB	12767647472892411841	run
a	DET	11901859001352538922	a
race	NOUN	8048469955494714898	race
because	ADP	16950148841647037698	because
I	PRON	561228191312463089	-PRON-
love	VERB	3702023516439754181	love
to	PART	3791531372978436496	to
run	VERB	12767647472892411841	run
since	ADP	10066841407251338481	since
I	PRON	561228191312463089	-PRON-
ran	VERB	12767647472892411841	run
today	NOUN	11042482332948150395	today

```
In [17]: def show_lemmas(text):
        for token in text:
            print(f'{token.text:{12}} {token.pos_:{6}}{token.lemma:<{22}} {t
```

In [18]: `show_lemmas(doc1)`

I	PRON	561228191312463089	-PRON-
am	VERB	10382539506755952630	be
a	DET	11901859001352538922	a
runner	NOUN	12640964157389618806	runner
running	VERB	12767647472892411841	run
a	DET	11901859001352538922	a
race	NOUN	8048469955494714898	race
because	ADP	16950148841647037698	because
I	PRON	561228191312463089	-PRON-
love	VERB	3702023516439754181	love
to	PART	3791531372978436496	to
run	VERB	12767647472892411841	run
since	ADP	10066841407251338481	since
I	PRON	561228191312463089	-PRON-
ran	VERB	12767647472892411841	run
today	NOUN	11042482332948150395	today

In [19]: `doc2 = nlp(u"I saw ten mice today!")`

In [20]: `show_lemmas(doc2)`

I	PRON	561228191312463089	-PRON-
saw	VERB	11925638236994514241	see
ten	NUM	7970704286052693043	ten
mice	NOUN	1384165645700560590	mouse
today	NOUN	11042482332948150395	today
!	PUNCT	17494803046312582752	!

In []: