In [1]:
```
import spacy
from spacy import displacy
import pandas as pd
nlp = spacy.load("en_core_web_sm")
file_path = "ML471_S7_Datafile_Concept.txt"
with open(file_path, "r", encoding="utf-8") as f:
    text = f.read()
```

In [2]:
```
doc = nlp(text)
sentences = [sent.text.strip() for sent in doc.sents if len(sent.text.strip()) >
def dependency_table(sentence):
    doc = nlp(sentence)
    data = []
    for token in doc:
        data.append({
            "Token": token.text,
            "Dependency": token.dep_,
            "Head": token.head.text
        })
    return pd.DataFrame(data)
```

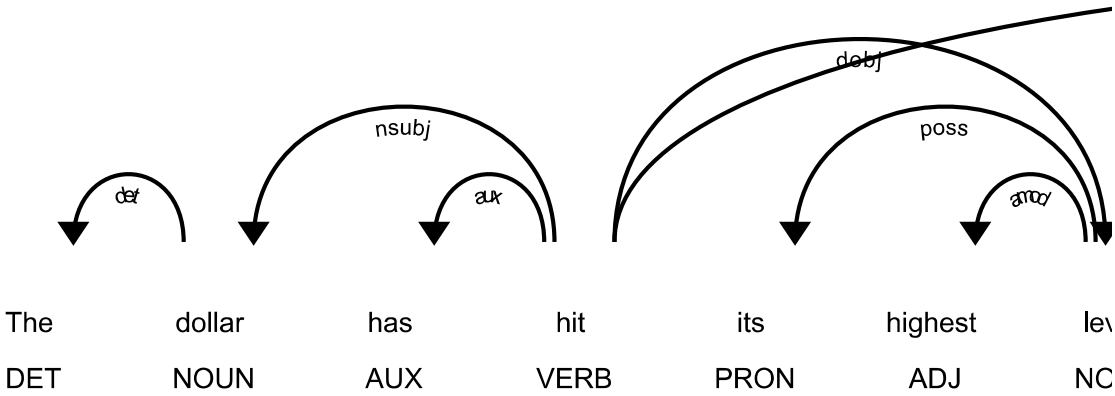
In [3]:
```
sentence = "Quarterly profits at US media giant TimeWarner jumped 76% to $1.13bn
dependency_table(sentence)
```

Out[3]:

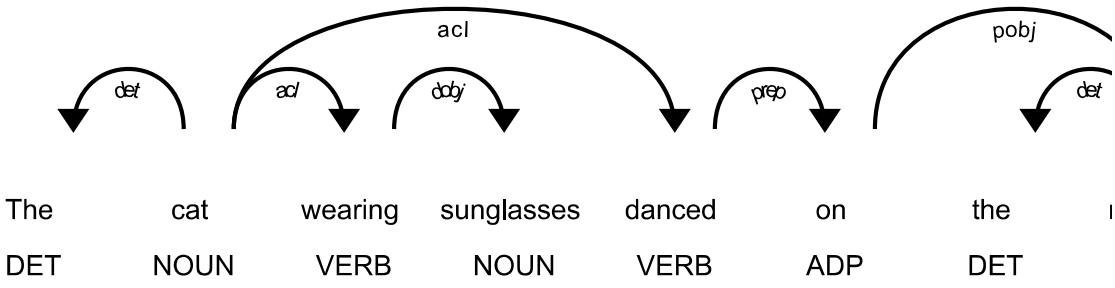
	Token	Dependency	Head
0	Quarterly	amod	profits
1	profits	nsubj	jumped
2	at	prep	profits
3	US	compound	giant
4	media	compound	giant
5	giant	pobj	at
6	TimeWarner	appos	giant
7	jumped	ROOT	jumped
8	76	nummod	%
9	%	npadvmod	jumped
10	to	prep	jumped
11	$	nmod	1.13bn
12	1.13bn	pobj	to
13	.	punct	jumped

In [4]:
```
simple_sentence = (
    "The dollar has hit its highest level against the euro "
    "after the Federal Reserve head said the US trade deficit is set to stabiliz
)
```

```
doc = nlp(simple_sentence)
displacy.render(doc, style="dep", options={"distance": 90})
```



In [5]:
```
creative_sentence = "The cat wearing sunglasses danced on the rooftop under the
doc = nlp(creative_sentence)
displacy.render(doc, style="dep", options={"distance": 80})
```



In [ ]:
```

```