


Python workout: Get indices of capital letters

The challenge

	A	B	C	D	E	F	G
1	Words	Expected Answer					
2	tiGer	3					
3	liON	3-4					
4	ElEpHanT	1-3-5-8					
5	BEAR	1-2-3-4					
6	IEOPard	2-3-4					
7	panda						
8	CHimPAnZEe	1-2-5-6-8-9					
9	rHiNoCeRoS	2-4-6-8-10					
10	HiPPoPotaMUS	1-3-4-6-10-11-12					
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

Find the positions of
uppercase letters and
separate them by
dashes.
The position start is 1
not 0 in the words.



Excel (Vijay A. Verma) BI · 2nd

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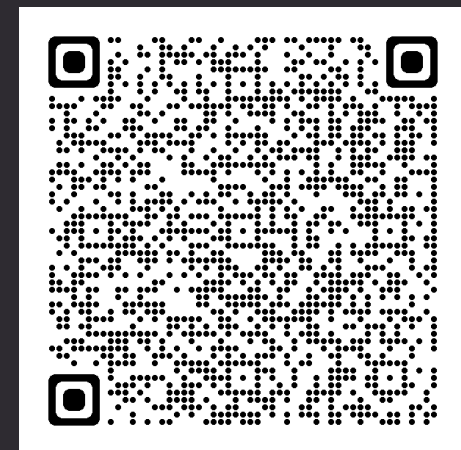
<https://excelbianalytics.com>

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One solution...

When copying the problem link from the challenge, it was necessary to change the url from the one shown in the comment to the 'download?' version

```
import pandas as pd
```

```
# Original link:
```

```
https://onedrive.live.com/view.aspx?resid=E11B26EEAACB7947!8211&ithint=file%2cxlsx&authkey=
!ABt7knDc8bHLLFU
```

```
url =
```

```
'https://onedrive.live.com/download?resid=E11B26EEAACB7947!8211&ithint=file%2cxlsx&authkey=
!ABt7knDc8bHLLFU'
```

```
df = pd.read_excel(url, sheet_name = 'Sheet1')
```

```
# Get the indices of the capital letters
```

```
# list(w) splits each word into characters
```

```
# enumerate lets us loop the elements c in its list parameter and provides an index i
```

```
cap_indices = [
    [str(i+1) for i, c in enumerate(list(w)) if c.isupper()]
    for w in df.Words
```

```
]
```

```
# Join the indices
```

```
result = ['-'.join(c) for c in cap_indices]
```

```
result
```

Joins each sub-list in the cap_indices list to produce the output

A nested list comprehension that:

- Loops through the words in the df column, and
- Enumerates the letters in those words to extract the indices of the upper case letters