

BIS 420 PROGRAMMING FOR DATA SCIENCE

PRAJAKTA POHARE CHAPTER 9 EXERCISE 9.7 ILLINOIS STATE UNIVERSITY

This question is based on a Puzzler that was broadcast on the radio program Car Talk ([http:// www. cartalk. com/ content/ puzzlers](http://www.cartalk.com/content/puzzlers)):

Give me a word with three consecutive double letters. I'll give you a couple of words that almost qualify, but don't. For example, the word committee, c-o-m-m-i-t-t-e-e. It would be great except for the 'i' that sneaks in there. Or Mississippi: M-i-s-s-i-s-s-i-p-p-i. If you could take out those i's it would work. But there is a word that has three consecutive pairs of letters and to the best of my knowledge this may be the only word. Of course there are probably 500 more but I can only think of one. What is the word?

```
def consecutivedl(word):
```

```
    count = 0
```

```
    i = 0
```

```
    while i < len(word) - 1:
```

```
        if word[i] == word[i + 1]:
```

```
            count += 1
```

```
            i += 2
```

```
        else:
```

```
            count = 0
```

```
            i += 1
```

```
    if count == 3:
```

```
    return True
```

```
    return False
```

```
def find(word_list):
```

```
    for word in word_list:
```

```
        if consecutivedl(word):
```

```
            return word
```

```
    return None
```

```
# Example word list
```

```
word_list = ["committee", "Mississippi", "bookkeeper", "bookkeeping"]
```

```
result = find(word_list)
```

```
print(f"The word with three consecutive double letters is: {result}")
```

```
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Users > prajaktapohare > Library > CloudStorage > OneDrive-ILStateUniversity > BIS420 > Week 9 > BIS420_PrajaktaPohare_Ch9_9.7_Input > ...
1  def consecutivedl(word):
2      count = 0
3      i = 0
4      while i < len(word) - 1:
5          if word[i] == word[i + 1]:
6              count += 1
7              i += 2
8          else:
9              count = 0
10             i += 1
11             if count == 3:
12                 return True
13     return False
14
15 def find(word_list):
16     for word in word_list:
17         if consecutivedl(word):
18             return word
19     return None
20
21 # Example word list
22 word_list = ["committee", "Mississippi", "bookkeeper", "bookkeeping"]
23
24 result = find(word_list)
25 print(f"The word with three consecutive double letters is: {result}")
```

