Assignment date	07 November 2022
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Maximum Marks	2 Marks

Exercises

Answer the questions or complete the tasks outlined in bold below, use the specific method described if applicable.

What is 7 to the power of 4?

In [ ]:
```
7**4
```

Out[ ]: 2401

Split this string:

s = "Hi there Sam!"

into a list.

In [ ]:
```
s="Hi there Sam!"
X=s.split()
print(X)
```

```
['Hi', 'there', 'Sam!']
```

Given the variables:

planet = "Earth" diameter = 12742

Use .format() to print the following string:

In [ ]:
```
planet="Earth"
diameter=12742
print("The diameter of '
```

```
The diameter of Earth is
12742 kilometers.
```

Given this nested list, use indexing to grab the word "hello"

In [ ]:
```
lst = [1,2,[3,4],[5,[100
```

In [ ]:
```
lst = [1,2,[3,4],[5,[100
a=lst[3][1][2]
print(a)
```

```
['hello']
```

Given this nest dictionary grab the word "hello".

In [ ]:
```
d = {'k1':[1,2,3,{'trick
```

In [ ]:
```
d = {'k1':[1,2,3,{'trick
print(d['k1'][3]["tricky
```

```
hello
```

What is the main difference between a tuple and a list?

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In [ ]:
```
#TUPLE
#Tuple is immutable.
#The items in tuples are
#In tuple the implicatio
#Tuples consumes less me

#LIST
#The items in lists are
#Lists are mutable
#In list the implicatior
#Lists consume more memo
```

Create a function that grabs the email website domain from a string in the form:

user@domain.com

So for example, passing "user@domain.com" would return: domain.com

In [ ]:
```
def domainGet(email):
    return email.split('
```

In [ ]:
```
domainGet('user@domain.c
```

Out[ ]:
```
'domain.com'
```

In [ ]:

```
def countDog(st):
    count = 0
    for word in st.lower
        if word == 'dog'
            count += 1
    return count
```

In [ ]:

```
countDog('This dog runs
```

Out[ ]: 2

Problem

You are driving a little too fast, and a police officer stops you. Write a function to return one of 3 possible results: "No ticket", "Small ticket", or "Big Ticket". If your speed is 60 or less, the result is "No Ticket". If speed is between 61 and 80 inclusive, the result is "Small Ticket". If speed is 81 or more, the result is

Create a basic function that returns True if the word 'dog' is contained in the input string. Don't worry about edge cases like a punctuation being attached to the word dog, but do account for capitalization.

In [ ]:
```
def findDog(st):
    if 'dog' in st.lower
        print("True")
    else:
        print("False")

st = "Is there a dog her
findDog(st)
```

```
True
```

In [ ]:
```
findDog('Is there a dog
```

```
True
```

Create a function that counts the number of times the word "dog" occurs in a string. Again ignore edge cases.

80 inclusive, the result is "Small Ticket". If speed is 81 or more, the result is "Big Ticket". Unless it is your birthday (encoded as a boolean value in the parameters of the function) -- on your birthday, your speed can be 5 higher in all cases.

In [ ]:

```
def caught_speeding(spee

    if is_birthday:
        speeding = speed
    else:
        speeding = speed

    if speeding > 80:
        return 'Big Tick
    elif speeding > 60:
        return 'Small Ti
    else:
        return 'No Ticke
```