Assignment -3
Python Programming

Assignment Date	09 October 2022
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Maximum Marks	2 Marks

TASK

QUESTION LINK

https://drive.google.com/file/d/1UnwWqw2PCFBDro1w0T__lvTKxX2dcsRL/view

SOLUTION LINK

https://colab.research.google.com/drive/1em5GeUqP2wsdH105w79stbg3LlymJkMe?usp=sharing

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?**

```
print(7**4)
```

```
2401
```

** Split this string:**

```
s = "Hi there Sam!"
```

into a list.

```
s=("hi there Sam!")
x=s.split()
print(x)
```

```
['hi', 'there', 'is', 'Sam']
```

```
s=("Hi there dad!")
y=s.split()
print(y)
```

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

** Given the variables:**

```
planet = "Earth"
diameter = 12742
```

** Use .format() to print the following string: **

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

```
planet=("Earth")
diameter=("12742")
print("The diameter of {} is {} kilometers.".format(planet,diameter))
```

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

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

```
lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
```

```
lst=[1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
print(lst[3][1][2])
```

```
['hello']
```

** Given this nest dictionary grab the word "hello". Be prepared, this will be annoying/tricky **

```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':
[1,2,3,'hello']}]}]}
```

```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':
[1,2,3,'hello']}]}]}
print(d['k1'][3]["tricky"][3]['target'][3])
```

```
hello
```

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

```
list memory is more than tuple
list is more aerror than tuple
tuple is faster than list
```

** 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

```
def domainGet(email):
    print("Your domain is: " + email.split('@')[-1])
```

```
email = input("Enter your email: >")
domainGet(email)
```

```
Enter your email: >abc@gmail.com
Your domain is: gmail.com
```

```
domainGet('user@domain.com')
```

```
Your domain is: domain.com
```

** 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. **

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

```
st = "Is there a dog here?"
findDog(st)
```

```
True
```

```
findDog('Is there a dog here?')
```

True

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

```python
string = input("Enter your string: ")

def countdogs(string):
    count = 0
    for word in string.lower().split():
        if word == 'dog' or word == 'dogs':
            count = count + 1
            print(count)

countdogs(string)

Enter your string: dog
1

countdogs('ths dog is very nice and i like dogs!')

1

def caught_speeding(speed, is_birthday):

    if is_birthday:
        speeding = speed - 5
    else:
        speeding = speed

    if speeding > 80:
        return 'Big Ticket'
    elif speeding > 60:
        return 'Small Ticket'
    else:
        return 'No Ticket'

caught_speeding(80,True)

caught_speeding(87,True)

'Small Ticket'
```

Create an employee list with basic salary values(at least 5 values for 5 employees) and using a for loop retreive each employee salary and calculate total salary expenditure.

```python
def weeklyPaid(hours_worked,wage):
  if hours_worked>40:
    return 40*wage +(hours_worked-40)* wage
  else:
      return hours_worked*wage
      hours_worked=50
```

```
wage=100
pay=weeklyPaid(hours_worked,wage)
print(f"Total salary expenditure:Rs.{pay:2f}")
```

Create two dictionaries in Python:

First one to contain fields as Empid, Empname, Basicpay

Second dictionary to contain fields as DeptName, DeptId.

Combine both dictionaries.

```python
def Merge(dict1, dict2):
    res = {**dict1, **dict2}
    return res
dict1 = {'a': 10, 'b': 8}
dict2 = {'d': 6, 'c': 4}
dict3 = Merge(dict1, dict2)
print(dict3)
```

```
{'a': 10, 'b': 8, 'd': 6, 'c': 4}
```