Assignment -3
Python Programming
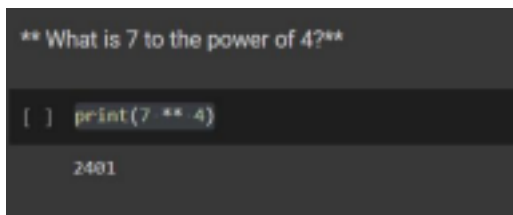
Assignment Date	7 October 2022
Student Name	E.Jagadeesh
Student Roll Number	723719106006
Maximum Marks	2 Marks

Question-1:

What is 7 to the power of 4?

Solution:

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


Question-2:

Split this string:

s = "Hi there Sam!"

into a list.

Solution:
```
s = "Hi there Sam!"
x=s.split()
print(x)
```
Output:
```
['Hi', 'there', 'Sam!']
```

```
** Split this string:**

s = "Hi there Sam!"

*into a list. *

[ ]  s = "Hi there Sam!"
     x=s.split()
     print(x)

Show hidden output

[ ]  s = "Hi there dad!"
     x=s.split()
     print(x)

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

Question-3:

Given the variables:

planet = "Earth"

diameter = 12742

Use .format() to print the following string:

The diameter of Earth is 12742 kilometers.

Solution:

planet = "Earth"

diameter = 12742

print('The diameter of {} is {} kilometers.' .format(planet,diameter)) Output:

The diameter of Earth is 12742 kilometers.


```
** 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

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

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

Question-4:

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

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

Solution:

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

print(lst[3][1][2])

Output:
['hello']

Question-5:

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

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

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

Output:

Hello

Question-6:

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

#Tuples are immutable.

#Lists consume more memory.

#Tuple iterations are faster

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

[ ]  #Tuples are immutable.
     #Lists consume more memory.
     #Tuple iterations are faster
```

Question-7:

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

formuser@domain.com

Solution:

```python
def domainGet(email):

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

  email = input("Please enter your email: >")

  domainGet(email)
```

Output:

Please enter your email: >user@domain.com Your domain is: domain.com

```
** 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("Please enter your email: >")
  domainGet(email)

  Please enter your email: >user@domain.com
  Your domain is: domain.com

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

  Your domain is: domain.com
```

Question-8:

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 doaccount for capitalization

Solution:
```python
def func(animal):
  if 'dog' in animal.lower() :
    print('True')
  else:
    print('False')
```

func('A dog is in the house')

Output:

　　　True

Question-9:

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

Solution:

```
x='I have a dog named Dog who likes the dog next door.'

def cntno(st) :

  count=0

  for txt in st.lower().split():

    if txt == 'dog' or txt == 'dogs':

     count = count + 1

   print(count)

cntno(x)
```

Output:

　　　3

```
x="I have a dog named Dog who likes the dog next door."
def cntno(st) :
  count=0
  for txt in st.lower().split():
      if txt == 'dog' or txt == 'dogs':
          count = count + 1
  print(count)
cntno(x)
```

3

+ Code   + Text

```
[ ]  cntno('My dog looks cuter than his dog')
```

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Question-10:

You are driving a little too fast, and a police officer stops you. Write a function to returnoneof 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 "Big Ticket". Unless it is your birthday (encoded as aboolean value in the parameters of the function) -- on your birthday, your speed canbe5higher in all cases.

```
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'
```

Solution:

```
        caught_speeding(81,False)

        caught_speeding(85,True)
```
Output:
```
        Big Ticket
        Small Ticket
```

```
*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 "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. *

[ ] 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(81,False)

    'Big Ticket'

[ ] caught_speeding(85,True)

    'Small Ticket'
```

Question-11:

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

Solution:

```
empsal=[50000,51000,60000,65000,66000]

totsal=0

for x in empsal :

  print(x)

  totsal=totsal+x

print(totsal)
```

Output:

```
50000

51000

60000

65000

66000

292000
```

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.

```
[ ]  empsal=[50000,51000,60000,65000,66000]
     totsal=0
     for x in empsal :
       print(x)
       totsal=totsal+x
     print(totsal)
```

```
50000
51000
60000
65000
66000
292000
```

Question-12:

Create two dictionaries in Python: First one to contain fields as Empid, Empname, BasicpaySecond dictionary to contain fields as DeptName, DeptId. Combine both dictionaries
Solution:

d1={'Empid': 123, 'Empname': 'Sam', 'Basicpay':98000}

d2={'DeptName': 'Marketing','DeptId': '10'}

d1.update(d2)

print(d1).

Output:

{'Empid': 123, 'Empname': 'Sam', 'Basicpay': 98000, 'DeptName': 'Marketing', 'DeptId': '10'}

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.

```
[ ]  d1={'Empid': 123, 'Empname': 'Sam', 'Basicpay':98000}
     d2={'DeptName': 'Marketing','DeptId': '10'}
     d1.update(d2)
     print(d1)

     {'Empid': 123, 'Empname': 'Sam', 'Basicpay': 98000, 'DeptName': 'Marketing', 'DeptId': '10'}
```