**ASSIGNMENT 1**

**PYTHON**

**SUBMITTED BY:**

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(C:\Users\admin\Anaconda2) C:\Users\admin>

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Python 2.7.12 |Anaconda 4.2.0 (64-bit)| (default, Jun 29 2016, 11:07:13) [MSC v.1500 64 bit (AMD64)] on win32

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>>>

**#1 What is 7 to the power of 4?**

>>> 7\*\*4

2401

>>>

>>>

>>>

**#2 Split this string:"Hi there Sam!"**

...

>>> s= "Hi there Sam!"

>>>

>>> s.split()

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

>>>

>>>

**#3 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.**

**... #'Is there a dog here?'**

...

>>> def my\_func(x):

...

... if "DOG" in x.upper():

... return("TRUE")

... else:

... return("NO")

...

...

>>> x='Is there a dog here?'

>>>

>>> my\_func(x)

'TRUE'

>>>

>>>

**#4 Create a function that counts the number of times the word "dog" occurs in a string. Again ignore edge cases. “This dog runs faster than the other dog dude!”**

>>> def my\_func1(x):

... count=0

... y=x.split()

... for i in y:

... if "DOG" == i.upper():

... count= count + 1

... else:

... continue

... if count>=1:

... return(count)

... else:

... return("Not Present")

...

>>>

... x="This dog runs faster than the other dog dude!"

>>> my\_func1(x)

2

>>>

>>>

>>>

>>>

**#5 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 speeed\_func(x,y):

... if y==0:

... if x<=60:

... return("No Ticket")

... elif x>60 & x<=80:

... return("Small Ticket")

... elif x>=81 :

... return("Big Ticket")

... elif y==1:

... if x<=60+5:

... return("No Ticket")

... elif x>60+5 & x<=80+5:

... return("Small Ticket")

... elif x>=81+5 :

... return("Big Ticket")

... else:

... return("please enter data in speed,birthday( 1|0 )format")

...

>>> speeed\_func(65,1)

'No Ticket'

>>>

>>>

>>>

>>>

**#6 Use lambda expressions and the filter() function to filter out words**

**... #from a list that don't start with the letter 's'. For example:seq = ['soup','dog','salad','cat','great']**

...

>>> seq = ['soup','dog','salad','cat','great']

>>>

>>>

>>> filter(lambda item: item[0:][0] not in ("s"),seq)

['dog', 'cat', 'great']

>>>

>>>

>>>

>>>

**#7 Write the code to create a list with seven colors of rainbow?**

... rainbow=["violet","indigo","blue","green","yellow","orange","red"]

>>> rainbow

['violet', 'indigo', 'blue', 'green', 'yellow', 'orange', 'red']

>>>

>>>

>>>

>>>

**#8 Write the code to add 2 string in 2 different ways?**

...

>>> a="Hello "

>>> b="baby!"

>>> a+b #string addition

'Hello baby!'

>>>

>>> xx=lambda a,b:a+b

>>> xx("Hello ", "baby") #using lambda function

'Hello baby'

>>>

>>>

>>>

>>>

**#9 What is the easiest way to print the same string 10 times?**

...

>>> "Hi"\*10

'HiHiHiHiHiHiHiHiHiHi'

>>>

>>>

**#10 Write the code to add a value to an existing list?**

...

>>> l1=[1,2,3]

>>> l1.append(4)

>>> l1

[1, 2, 3, 4]

>>>

>>>

**#11 Write the code to covert temperature to Celsius to Fahrenheit using lambda function ?**

...

>>> lmb=lambda a:a\*9.0/5.0 + 32

>>>

>>> lmb(32)

89.6

>>>

>>>

**#12 Write code to take input number of the user and tell if the even / odd**

...

>>> num=input("enter the number :" )

enter the number :23

>>> if num%2==0:

... print(num," is Even")

... else:

... print(num," is Odd")

...

...

(23, ' is Odd')

>>>

>>>

>>>

>>>

**#13 How to remove the 4th element of a list?**

...

>>> l1=[1,2,3,4,5,6]

>>>

>>> del l1[3] #deleting the 4th element ia a list

>>> l1

[1, 2, 3, 5, 6]

>>>

>>>

**#14 How to insert a value in a list in the 6th position?**

...

>>> l1.insert(5,23)

>>> l1

[1, 2, 3, 5, 6, 23]

>>>

>>>

>>>

**#15 Identify the following data types:**

... A = (1, 2, 3)

>>> type(A)

<type 'tuple'>

>>>

>>> B = [1,2,3]

>>> type(B)

<type 'list'>

>>>

>>> C = {'Name': 'Saikat', 'Age':49}

>>> type(C)

<type 'dict'>

>>>

>>>

>>>

**#16 Write the code to print numbers 1 to 100 using range?**

...

>>> print(range(1,101))

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100]

>>>

>>>

>>>

>>>

**#17 How to display the output of a list in sorted order?**

... l2=["k","j","x","a"]

>>> l2.sort()

>>> print("sorted output: " ,l2)

('sorted output: ', ['a', 'j', 'k', 'x'])

>>>

>>>

>>>

**#18 Which of the following data type is immutable?**

... Tuple is immutable

>>>

>>>

**#19 How to delete all contents of a dictionary**

... dic = {'Name': 'Saikat', 'Age':49, 'Address': 'Delhi','sex':'Male'}

>>> dic.clear() #deleting the entire data of dictionary

>>> dic

{}

>>>

>>>

**#20 Write the code to display largest of three number**

... a=2000000

>>> b=5000

>>> c=2000

>>> #max(a,b,c)

...

>>> if a>b and a>c :

... print(a)

... elif b>a and b>c:

... print(b,"is largest")

... elif c>a and c>b:

... print(c,"is largest")

...

2000000

>>>