PYTHON – WORKSHEET 1

Q1 to Q8 have only one correct answer. Choose the correct option to answer your question.

1. Which of the following operators is used to calculate remainder in a division? A) # B) & C) % D) $

ANS: C) %

1. In python 2//3 is equal to? A) 0.666 B) 0 C) 1 D) 0.67

ANS: B)0

In [1]:
```
2//3
```

Out[1]:
```
0
```

1. In python, 6<<2 is equal to? A) 36 B) 10 C) 24 D) 45

ANS: C)24

In [2]:
```
6<<2
```

Out[2]:
```
24
```

1. In python, 6&2 will give which of the following as output? A) 2 B) True C) False D) 0

ANS: A)2

In [3]:
```
6&2
```

Out[3]:
```
2
```

1. In python, 6|2 will give which of the following as output? A) 2 B) 4 C) 0 D) 6

ANS: D)6

In [4]:
```
6|2
```

Out[4]:
```
6
```

1. What does the finally keyword denotes in python?

A) It is used to mark the end of the code B) It encloses the lines of code which will be executed if any error occurs while executing the lines of code in the try block. C) the finally block will be executed no matter if the try block raises an error or not. D) None of the above

ANS: B) It encloses the lines of code which will be executed if any error occurs while executing the lines of code in the try block.

1. What does raise keyword is used for in python?

A) It is used to raise an exception. B) It is used to define lambda function C) it's not a keyword in python. D) None of the above

ANS: A) It is used to raise an exception.

1. Which of the following is a common use case of yield keyword in python?

A) in defining an iterator B) while defining a lambda function C) in defining a generator D) in for loop.

ANS: C) in defining a generator

Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.

1. Which of the following are the valid variable names? A) _abc B) 1abc C) abc2 D) None of the above

ANS: A) _abc

1. Which of the following are the keywords in python? A) yield B) raise C) look-in D) all of the above

ANS: A) yield B) raise

Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.

1. Write a python program to find the factorial of a number.

In [1]:
```
import math
x=int(input("Enter any number"))
print("The factorial of the number is:")
print(math.factorial(x))
```

```
Enter any number10
The factorial of the number is:
3628800
```

1. Write a python program to find whether a number is prime or composite.

In [2]:
```
num=int(input("Enter any number"))
if num>1:
    for i in range (2,num):
        if num %i == 0:
            print(num,"is a composite number")
            break

        else:
            print(num,"is a prime number")
```

```
Enter any number20
20 is a composite number
```

1. Write a python program to check whether a given string is palindrome or not.

In [3]:
```
S="madam"
rev=S[::-1]
if rev==S:
    print(S,"is a Palindrome")
else:
    print(S,"is not a Palindrome")
```

```
madam is a Palindrome
```

1. Write a Python program to get the third side of right-angled triangle from two given sides.

In [4]:
```
import math
from math import sqrt

a=float(input("Enter any length"))
b=float(input("Enter any length"))

Hypotenuse= sqrt(a**2+b**2)

print("Length of third side of the right-angled triangle is",Hypotenuse)
```

```
Enter any length8
Enter any length6
Length of third side of the right-angled triangle is 10.0
```

1. Write a python program to print the frequency of each of the characters present in a given string

In [5]:
```
string="Beautiful"
res={}
for keys in string:
    res[keys]=res.get(keys,0)+1
    print("Frequency of each character in Beautiful is :\n"+ str(res))
```

```
Frequency of each character in Beautiful is :
{'B': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 1, 't': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 1, 't': 1, 'i': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 1, 't': 1, 'i': 1, 'f': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 2, 't': 1, 'i': 1, 'f': 1}
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 2, 't': 1, 'i': 1, 'f': 1, 'l': 1}
```

In [6]:
```
string="Beautiful"
res={}
for keys in string:
    res[keys]=res.get(keys,0)+1
```

In [7]:
```
print("Frequency of each character in Beautiful is :\n" +str(res))
```

```
Frequency of each character in Beautiful is :
{'B': 1, 'e': 1, 'a': 1, 'u': 2, 't': 1, 'i': 1, 'f': 1, 'l': 1}
```

THE END