iNeuron

Python

Interview Questions

1. How to Implement the program by creating functions to check vowel and to count vowels.

Ans-

In [5]:
```
def isVowel(ch):
    if (
        ch == "A"
        or ch == "a"
        or ch == "E"
        or ch == "e"
        or ch == "I"
        or ch == "i"
        or ch == "O"
        or ch == "o"
        or ch == "U"
        or ch == "u"
    ):
        return True
    else:
        return False
def countVowel(s):
    # declare count
    count = 0
    # iterate and check characters
    for i in str:
        if isVowel(i) == True:
            count += 1
    return count
str = "Hello world"
print("Total vowels are: ", countVowel(str))
```

```
Total vowels are:  3
```

2. Amongst which of the following function is / are used to create a file and writing data?

A. append()
B. open()
C. close()
D. None of the mentioned above

Answer: B) open()

Explanation:

To create a text file, we call the open() method and pass it the filename and the mode parameters to the function.

3. How to Create multiple copies of a string by using multiplication operator.

Ans-

In [6]:
```
# Python program to create N copies
# of a given string

# define inputs: string and N
str1 = "Hello"
n = 3

# create copies
str2 = str1 * 3

# print
print ("str1: ", str1)
print ("str2: ", str2)
```

```
str1:  Hello
str2:  HelloHelloHello
```

4. How to Append text at the end of the string using += Operator?

Ans-

In [7]:
```
# Python program to add strings
# to the string

str = 'New Delhi'
str += ' '    #adding space
str += 'Chennai'
str += ' '    #adding space
str += 'Mumbai'
str += ' '    #adding space
str += 'Banglore'

# print the string
print ('str:',str)
```

```
str: New Delhi Chennai Mumbai Banglore
```

5. How to Check if a substring presents in a string using 'in' operator?

Ans-

In [8]:
```
str = "IncludeHelp.Com"
sub_str ="Help"

# checking sub_str presents in str or not
if sub_str in str:
    print("Yes, substring presents in the string.")
else:
    print("No, substring does not present in the string.");

# testing another substring
sub_str = "Hello"

# checking sub_str presents in str or not
if sub_str in str:
    print("Yes, substring presents in the string.")
else:
    print("No, substring does not present in the string.")
```

```
Yes, substring presents in the string.
No, substring does not present in the string.
```

6. How to assign Hexadecimal values in the string and print it in the string format?

Ans-

```
In [9]: # declare and assign strings
        str1 = "\x41\x42\x43\x44"
        str2 = "This is  \x49\x6E\x63\x6C\x75\x64\x65\x48\x65\x6C\x70"

        # printing strings
        print("str1 =", str1)
        print("str2 =", str2)
```

```
str1 = ABCD
str2 = This is  IncludeHelp
```

7. How to print double quotes with the string variable?

```
In [10]: #declare a string
         str1 = "Hello world";

         #printing string with the double quotes
         print("\"%s\"" % str1)
         print('"%s"' % str1)
         print('"{}"'.format(str1))
```

```
"Hello world"
"Hello world"
"Hello world"
```

8. How to Ignore escape sequences in the string?

Ans-

```
In [11]: #printing single quote
         str1 = "Hi, I\'m IncludeHelp"
         #printing double quotes
         str2 = "\"Hello world\""
         #printing path
         str3 = "D:\\work_folder\\python_works"
         #using hexadecimal values
         str4 = "This is  \x49\x6E\x63\x6C\x75\x64\x65\x48\x65\x6C\x70"

         print(str1)
         print(str2)
         print(str3)
         print(str4)

         Hi, I'm IncludeHelp
         "Hello world"
         D:\work_folder\python_works
         This is  IncludeHelp
```

9.Write a python program to check whether a string contains a number or not.

Ans- Input:

```
str1 = "8789"
str2 = "Hello123"
str3 = "123Hello"
str4 = "123 456" #contains space

# function call
str1.isdigit()
str2.isdigit()
str3.isdigit()
str4.isdigit()
```

Output:
True
False
False
False

10. What is Factorial of a Number?
Factorial of a number is the product of all positive integers from 1 to that number. It is denoted by the symbol "!". For example, factorial of 5 is 5! = 5*4*3*2*1 = 120 and factorial of 8 is 8! = 8 * 7 * 6 * 5 * 4 * 3 * 2 * 1 which equals to 40320.
By default, the factorial of 0 is 1, and the Factorial of a negative number is not defined.

In mathematics, a factorial is denoted by "!". Therefore, the factorial of n is given by the formula
n! = n x (n-1) x (n-2) x (n-3) … x1.

11. How to Search and Sort in Python?

Ans- Searching algorithms are used to locate an element or retrieve it from a data structure. These algorithms are divided into two categories based on the type of search operation, namely sequential search (Linear Search) and interval search (Binary Search). Sorting is the process of arranging data in a specific format. Sorting algorithms specify how to sort data in a specific order such as numerical order (ascending or descending order) or lexical order.

12. How to Determine if a Number is Prime or Not?
Ans- To check if a number is prime, follow these steps:

1. Begin by taking a number as input from the user.
2. Then, start counting through natural numbers, beginning at 2.
3. Check whether the input number can be divided evenly by any of these natural numbers.
4. If the input number is divisible by any of these numbers, it is not a prime number; otherwise, it is a prime number.
5. Finally, exit the program.

13. How to Sort a list?

Create a function in Python that accepts two parameters. The first will be a list of numbers. The second parameter will be a string that can be one of the following values: asc, desc, and none.

If the second parameter is “asc,” then the function should return a list with the numbers in ascending order. If it’s “desc,” then the list should be in descending order, and if it’s “none,” it should return the original list unaltered.

14. How to Convert a decimal number into binary

Write a function in Python that accepts a decimal number and returns the equivalent binary number. To make this simple, the decimal number will always be less than 1,024, so the binary number returned will always be less than ten digits long.

15. Create a calculator function.

Write a Python function that accepts three parameters. The first parameter is an integer. The second is one of the following mathematical operators: +, -, /, or . The third parameter will also be an integer.

The function should perform a calculation and return the results. For example, if the function is passed 6 and 4, it should return 24.

20. How to Extract the mobile number from the given string in Python?

Ans-

In [14]:
```
# importing the module
import re

# string
string='''If you would like to get in touch with us through other ways,
the Flipkart customer support number is 018002089898.
And we're just a call away if you need anything.
You can also arrange a call-back from within the
Flipkart app regarding any issue related to your order.'''

# extracting the mobile number
Phonenumber=re.compile(r'\d\d\d\d\d\d\d\d\d\d\d\d')
m=Phonenumber.search(string)

# printing the result
print('mobile number found from the string : ',m.group())
```

```
mobile number found from the string :  018002089898
```

21.How to replace a special string from a given paragraph with another string in Python?

Ans-

In [15]:
```
# importing the module
import re

# string
paragraph='''These days, Engineers are struggling to get a job in a better
company due to the lack of experience and also due to the high competition.
Engineers have the only book knowledge but the company is expecting the
industrial experience in the Engineers for better productivity.'''
# replacing string

reg=re.compile('Engineers')
s=reg.sub("students",paragraph)

# printing the replaced string
print(s)
```

```
These days, students are struggling to get a job in a better
company due to the lack of experience and also due to the high competition.
students have the only book knowledge but the company is expecting the
industrial experience in the students for better productivity.
```

22. How to find the ASCII value of each character of the string in Python?

Ans-

In [16]:
```
# initialize a string
s='Motihari'
ascii_codes=[] # to contain ASCII codes

# getting ASCII values of each character
# using ord() method and appending them
# to "A"
for i in range(len(s)):
    ascii_codes.append(ord(s[i]))

# printing the result
print('The ASCII value of each character are:',ascii_codes)
```

```
The ASCII value of each character are: [77, 111, 116, 105, 104, 97, 114, 105]
```

In [ ]: