In [2]:
```
print("hello world")
```

```
hello world
```

In [81]:
```
a="LJ UNIVERSITY"
print(a[3])
print(a[-1])
print(a[-3])
# print(a[100])
```

```
U
Y
I
```

In [9]:
```
s="Learning Python is very easy!!" #string index
print(s[1:7:1])
print(s[1:7])
print(s[1:7:2])
print(s[1:7])
print(s[:7])
print(s[9:])
print(s[::])
print(s[:])
print(s[::-1])
print(s[9:4:-1])
```

```
earnin
earnin
eri
earnin
Learnin
Python is very easy!!
Learning Python is very easy!!
Learning Python is very easy!!
!!ysae yrev si nohtyP gninraeL
P gni
```

In [14]:
```
print("my "+"vishal")#concanation
print("vishal "*2)#repetation
```

```
my vishal
vishal vishal
```

In [19]:
```
s1=input("enter first string: ")#string comparsion
s2=input("enter first string: ")
if s1==s2:
    print("Both String are equal")
elif s1>s2:
    print("First string is greater")
else:
    print("second string is greater")
```

```
enter first string: difffvwgfe
enter first string: diffjwwg
second string is greater
```

In [20]:
```
t=("vishal","aryan","aakash")#join string
s="/".join(t)
print(s)
```

```
vishal/aryan/aakash
```

In [24]:
```
name="vishal"#format string
salary=100000
```

```
age=19
print("{}'s salary is {}'s and age{}'  ".format(name,salary,age))
print("{1}'s salary is {0}'s and age{2}'  ".format(name,salary,age))
```

```
vishal's salary is 100000's and age19'
100000's salary is vishal's and age19'
```

In [48]:
```
a="vishal"
print(len(a))
b="apple"
c=" banana "
x=b.rstrip("e")#remove space
print("from all fruits",x,"is my favourate")
print(len(x),len(a))
x=c.lstrip("b")#remove space
print("from all fruits",x,"is my favourate")
print(len(x),len(a))
x=c.strip()
print("from all fruits",x,"is my favourate")
print(len(x),len(a))
```

```
6
from all fruits appl is my favourate
4 6
from all fruits  banana  is my favourate
8 6
from all fruits banana is my favourate
6 6
```

In [53]:
```
t="hello friends"#convert uppercase
x=t.upper()
print(x)
j="HELLO FRIENDS"#convert lowercase
y=j.lower()
print(y)
k="HELLO FRIENDS"#convert swap
m=k.swapcase()
print(m)
```

```
HELLO FRIENDS
hello friends
hello friends
```

In [56]:
```
t="Hello gusys"
x=t.title()#both string
y=t.capitalize()#only first charecter of string
print(x)
print(y)
```

```
Hello Gusys
Hello gusys
```

In [78]:
```
t="company13"
print(t.isalnum())#if having number in strig than return true
x="company 12"
print(x.isalnum())
y="company"
print(y.isalpha())
z="12"
print(z.isdigit())
```

```
True
False
True
True
```

In [84]:
```
t="hello world"
x=t.islower()
print(x)
m="HELLO FRIENDS"
y=m.isupper()
print(y)
```

```
True
True
```

In [93]:
```
a=input("enter first string: ")
uppercount=0
lowercount=0
for i in a:
    if(i.islower()):
        lowercount+=1
    elif(i.isupper()):
        uppercount+=1
# if(a.iscapitalize()):
#     print("The fist letter of the string is capitle")
if(a.istitle()):
    print("The string is a title")

print(f"There are {uppercount} uppercase and {lowercount} lower cases")
```

```
enter first string: Vishal
The string is a title
There are 1 uppercase and 5 lower cases
```

In [94]:
```
#isidentifier()
a="Myfile"
b="demo2"
c="2demo"
d="my_demo"
print(a.isidentifier())
print(b.isidentifier())
print(c.isidentifier())
print(d.isidentifier())
```

```
True
True
False
True
```

In [95]:
```
#isspace
t=" "
x=t.isspace()
print(x)
```

```
True
```

In [97]:
```
a=input("enter first string: ")
spacecount=0
for i in a:
    if(i.isspace()):
        spacecount+=1
print(f"thare are total of {spacecount} space")
```

```
enter first string: V B N
thare are total of 2 space
```

In [102…
```
s="learing Python is very easy"
print(s.find("PYTHON"))
```

```
print((s.find("i")))
print(s.find("a",3,50))
```

```
-1
4
24
```

In [104…

```
s="abcdacbdnaldhacbs"
print(s.count("a"))
print(s.count("a",3,10))
```

```
4
2
```

In [113…

```
s="vidhal"
print(s.replace("d","s",1))
```

```
vishal
```

In [9]:

```
s="LJ University"
l=s.split()
print(l)
for i in l:
    print(i)
```

```
['LJ', 'University']
LJ
University
```

In [16]:

```
s="07-11-2024 "
l=s.split("0")
a=s.split()
print(l)
print(a)
```

```
['', '7-11-2', '24 ']
['07-11-2024']
```

In [18]:

```
import string
print(string.punctuation)
print(len(string.punctuation))
```

```
!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~
32
```

In [20]:

```
import string
print(str.maketrans("a","b" ,string.punctuation))
```

```
{97: 98, 33: None, 34: None, 35: None, 36: None, 37: None, 38: None, 39: None, 40: No
ne, 41: None, 42: None, 43: None, 44: None, 45: None, 46: None, 47: None, 58: None, 5
9: None, 60: None, 61: None, 62: None, 63: None, 64: None, 91: None, 92: None, 93: No
ne, 94: None, 95: None, 96: None, 123: None, 124: None, 125: None, 126: None}
```

In [25]:

```
import string
t="ab$xyz@#%abc"
t=t.translate(str.maketrans("a","b" ,string.punctuation))
c=t.translate(str.maketrans("a","b" ,"$#%"))
d=str.maketrans(" ", " ", "$#%")
print(t)
print(c)
print(d)
```

```
bbxyzbbc
bbxyzbbc
{32: 32, 36: None, 35: None, 37: None}
```

In [28]:

```
s="Hello Sam!"
x="mSa"
```

```
y="eJo"
t=s.maketrans(x,y)
print(s.translate(t))
```

```
Hello Joe!
```

tuple

In [39]:
```
a=()
print(type(a))
b=10
print(type(b))

c=10,
print(type(c))
```

```
<class 'tuple'>
<class 'int'>
<class 'tuple'>
```

In [42]:
```
t=10,20,30,40
t=tuple(range(10,20,2))
print(t)
```

```
(10, 12, 14, 16, 18)
```

In [45]:
```
t=(10,20,30,40,50,60)
print(t[0])
print(t[-1])
print(t[-3])
print(t[-4])
# print(t[10])#error
```

```
10
60
40
30
```

In [48]:
```
t=(10,20,30,40,50,60)
print(t[2:5])
print(t[2:10])
print(t[1: : 2])
print(t[-1:-4:-1])
```

```
(30, 40, 50)
(30, 40, 50, 60)
(20, 40, 60)
(60, 50, 40)
```

In [49]:
```
#mathamatic operator
t1=(10,20,30)
t2=(30,40,50)
t=t1+t2
print(t)
```

```
(10, 20, 30, 30, 40, 50)
```

In [50]:
```
x=t1*3
print(x)
```

```
(10, 20, 30, 10, 20, 30, 10, 20, 30)
```

In [53]:
```
t=(1,2,3,4,[10,20,30])
t[4][1]=70
print(t)
```

```
(1, 2, 3, 4, [10, 70, 30])
```

In [57]:
```
#funcation of tuple
t=(10,20,330,40)#find the length
print(len(t))
```

```
4
```

In [56]:
```
t=(10,20,330,40,20,10,30)
print(t.count(10))#counting
print(t.count(40))
print(t.count(50))
```

```
2
1
0
```

In [59]:
```
t=(10,20,10,10,30)#find the index
print(t.index(10))
print(t.index(30))
# print(t.index(40)) error
```

```
0
4
```

In [61]:
```
t=(40,10,20,30,30)#answer are given in the list and answer is asending order
t1=sorted(t)
print(t1)
```

```
[10, 20, 30, 30, 40]
```

In [63]:
```
t=(40,10,20,30,30)
t1=sorted(t,reverse=True)
print(t1)
```

```
[40, 30, 30, 20, 10]
```

In [64]:
```
t=(40,10,20,30,30)
print(min(t))
print(max(t))
```

```
10
40
```

In [69]:
```
t=("whoisthor","whoisvishal","jay","k")
print(min(t))
print(max(t))
```

```
jay
whoisvishal
```

In [71]:
```
#tuple packing and unpacking
a=10 #packing
b=20
c=30
d=40
t=a,b,c,d
print(t)

b=(10,20,30,40)#unpacking
t=a,b,c,d
print(a,b,c,d)
```

```
(10, 20, 30, 40)
10 (10, 20, 30, 40) 30 40
```

In [72]:
```
t=("apple","banna","cherry")#for using for loop
for i in range(len(t)):
```

```
    print(t[i])
```

```
apple
banna
cherry
```

In [80]:
```
t=("apple","banna","cherry")#for using while loop
i=0
while i<len(t):
    print(t[i])
    i+=1
print()
```

```
apple
banna
cherry
```

In [85]:
```
s="python" #using reversed funcation
print(list(reversed(s)))
t=("p","y","t","h","o","n")
print(list(reversed(t)))
x=range(5,9)
print(list(reversed(x)))
l=[1,6,5,4,3]
print(list(reversed(l)))
```

```
['n', 'o', 'h', 't', 'y', 'p']
['n', 'o', 'h', 't', 'y', 'p']
[8, 7, 6, 5]
[3, 4, 5, 6, 1]
```

In [87]:
```
l1="xyz"
s=enumerate(l1,100)
print(s)
print(list(s))
```

```
<enumerate object at 0x000002286A158180>
[(100, 'x'), (101, 'y'), (102, 'z')]
```

In [92]:
```
l1=["eat","sleep","walk"]
for ele in enumerate(l1):
    print(ele)
for count,ele in enumerate(l1,10):
    print(count,ele)
```

```
(0, 'eat')
(1, 'sleep')
(2, 'walk')
10 eat
11 sleep
12 walk
```

In [93]:
```
a="Hello how are you"
for i,j in enumerate(a):
    print(i,"->",j)
```

```
0 -> H
1 -> e
2 -> l
3 -> l
4 -> o
5 ->
6 -> h
7 -> o
8 -> w
9 ->
10 -> a
```

```
11 -> r
12 -> e
13 ->
14 -> y
15 -> o
16 -> u
```

In [99]:
```python
#write program to remove ith index charector to string in python
a="hello world"
n=int(input("enter a index"))
x=a[:n]+a[n+1:]
print(x)
```

```
enter a index5
helloworld
```

In [3]:
```python
#write to program to count all the letters ,digits and special symbol from the given

def count_characters(input_string):
    letters = 0
    digits = 0
    special_symbols = 0

    # Loop through each character in the input string
    for char in input_string:
        if char.isalpha():
            letters += 1
        elif char.isdigit():
            digits += 1
        else:
            special_symbols += 1

    # Return the counts
    return letters, digits, special_symbols

# Input string
input_string = input("Enter a string: ")

# Call the function and get the counts
letters, digits, special_symbols = count_characters(input_string)

# Output the results
print(f"Letters: {letters}")
print(f"Digits: {digits}")
print(f"Special Symbols: {special_symbols}")
```

```
Enter a string: Vi244@
Letters: 2
Digits: 3
Special Symbols: 1
```

In [11]:
```python
#write program to find  all occurances of sub string and given string by ignoreing t
#welcome to USA, usa is awasome isnt'
# a=input("Enter a String")
# b=input("Enter the Substring")
# a=a.lower().split(" ")
# b=b.lower()
# wordcount=0
# for string in a:
#     if b in string:
#         wordcount+=1
# print(f"there are total {wordcount}")


# second method
```

```
s="welcome to USA, usa is awasome isnt'"
sub="usa"
temp=s.lower()
c=temp.count(sub)
print("The count is:  ",c)
```

```
The count is:   2
```

In [20]:
```
#write program to calculate the sum of avarage present in digit like Pyt$@%h1724$h03
str=input("Enter a digit")
add=0
count=0
for s in str:
    if(s.isdigit()):
        add+= int(s)
        count+=1
print(f"The sum of : {add}\n average: {add//count}")
```

```
Enter a digit Pyt$@%h1724$h032n
The sum of : 19
 average: 2
```

In [21]:
```
#write python program to replace each special symbol with hash()#/*jon is @developer
s=input("Enter here")
newstr=[]
for s in str:
    if not s.isalnum():
        newstr.append('#')
    else:
        newstr.append(s)
print(f"The final string is: {''.join(newste)}")
```

```
Enter herejon is @developer 2mission!!
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-21-9fffefb97e28> in <module>
      7     else:
      8         newstr.append(s)
----> 9 print(f"The final string is: {''.join(newste)}")

NameError: name 'newste' is not defined
```

In [29]:
```
#Write a python program to find ax and min element in given tuple
t=(10,30,40,20,60)
maxval=t[0]
minval=t[0]
for i in t:
    if (i>maxval):
        maxvalue=i
    elif(i<minval):
        minvalue=i
print(f"The minimum value:{minval}")
print(f"The minimum value:{maxval}")
```

```
The minimum value:10
The minimum value:10
```

In [38]:
```
#Write a python program to even length word in string
userstr=input("Enter Value: ")
userstr=userstr.split()
for i in userstr:
    if (len(i)%2==0):
        print(i,end=' ')
```

```
Enter Value: Hello Welcome to LJ University
to LJ University
```

In [42]:
```
#write program to uppercase half of a String
s=input("Enter here: ")
result=s[::len(s)//2].upper()+s[len(s)//2:]
print(result)
```

```
Enter here: Vishal
VHhal
```

In [45]:
```
#write program to capitalize first and last word
s=input("Enter a word: ")
s=s.title()
result=""
for i in s.split():\
    result+=i[:-1]+i[-1].upper()+" "
print(result.rstrip())
```

```
Enter a word: vishal
VishaL
```

In [49]:
```
#write program to check if 2 string are balanaced
string1 = set(input("Enter a string: "))
string2 = set(input("Enter 2nd string: "))
flag = True

for char in string1:
    if(char in string2):
        continue
    else:
        flag = False
        break

if(flag):
    print("String is balanced")
else:
    print("The string is not balanced")
```

```
Enter a string: HELLO
Enter 2nd string: HELLO
String is balanced
```

In [53]:
```
#write program to shift decimal digit and places to the left reping the extra digit
#if shift is greter than digit than reverse the digit
n=12345
s=int(input("Enter shift"))
x=n[shift:]+n[:shift]
if shift<len(n):
    print(x)
else:
    n[::-1]
```

```
Enter shift3
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-53-b0caa4a8c4db> in <module>
      3 n=12345
      4 s=int(input("Enter shift"))
----> 5 x=n[shift:]+n[:shift]
      6 if shift<len(n):
      7     print(x)

NameError: name 'shift' is not defined
```