1. Guess output of each slice:

In [16]:

```
s='Python is Object Oriented'
print(s[-1])
print(s[: : -1])
print(s[:-1])
print(s[1:1])
print(s[4:10])
```

```
d
detneirO tcejbO si nohtyP
Python is Object Oriente

on is
```

2. What error do you see for following statements:

In [27]:

```
s= ''
print(s[1])
```

```
---------------------------------------------------------------------------
-
IndexError                                Traceback (most recent call las
t)
<ipython-input-27-1d0d5b971d35> in <module>
      1 s= ''
----> 2 print(s[1])

IndexError: string index out of range
```

3. Do you get any error for the following code, if not give the output:

In [26]:

```
S ='Gaurav'
print(s[1])    # value of s is stored as s = '' from previous row
```

```
---------------------------------------------------------------------------
-
IndexError                                Traceback (most recent call las
t)
<ipython-input-26-48374c465be0> in <module>
      1 S ='Gaurav'
----> 2 print(s[1])

IndexError: string index out of range
```

4. Find output of the following:

In [35]:

```
s = 'a b cd'
print(len(s))
print(s[: : 2])
print(len(s[: : 2]))
```

```
6
abc
3
```

In [42]:

```
s='a#b#c#d#'
print(s.split())
print(s.split('#'))
l = s.split('#')
s = '$'.join(l)
print(s)
```

```
['a#b#c#d#']
['a', 'b', 'c', 'd', '']
a$b$c$d$
```

In [44]:

```
S = 'Gaurav'
#    654321
S = S[: : -2][: : -2]
print(S)
## perfroming indexing twice
```

```
av
```

In [2]:

```
S = 'Gaurav'
#    654321
S = S[: : -2]
r = S[: : -2]
print(S)
print(r)
```

```
vra
av
```

In [45]:

```
print(1>2)
```

```
False
```

In [47]:

```
print(4%2, 5%2, 2%5, sep=',')
```

```
0,1,2
```

In [52]:

```
s ='abcab'
s.upper()           # str.upper() returns copy of  string which need to stored but here not stored so no change in s ie abcab
print(s)
print(s.count('A'), end = ',')
print(s.count('A',2,4), end = ',')
print(s.count('a',2,4), end = ',')
```

```
abcab
0,0,1,
```

5. WAP to input a string and remove all spaces from it.

In [14]:

```
ip = input("enter string with spaces :" )
ops = ip.strip()
print (ops)

#### how to remove spaces in between strings strip removes only leading and trailing spaces in the string
```

```
enter string with spaces :         jjr kker 900       llkfpfp
jjr kker 900       llkfpfp
```

In [2]:

```
ip1 = input("enter string with spaces :" )
ops = ip1.replace(' ', '')
print (ops)

### using replace we see remove all the spaces from a string
```

```
enter string with spaces :    jff jfdjfsd lsjf    df
jffjfdjfsdlsjfdf
```

In [ ]:

```

```

In [ ]:

```

```

6. What does this symbol denote:

[] - it can be used for indexing as well as to denote list

7. WAP to print all methods(functions/operations) available in a string (Hint : dir())

In [57]:

```
print(dir(str)) # Doubt how to filter only functions/operations
```

```
['__add__', '__class__', '__contains__', '__delattr__', '__dir__', '__doc_
_', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__',
'__getnewargs__', '__gt__', '__hash__', '__init__', '__init_subclass__',
'__iter__', '__le__', '__len__', '__lt__', '__mod__', '__mul__', '__ne__',
'__new__', '__reduce__', '__reduce_ex__', '__repr__', '__rmod__', '__rmul_
_', '__setattr__', '__sizeof__', '__str__', '__subclasshook__', 'capitaliz
e', 'casefold', 'center', 'count', 'encode', 'endswith', 'expandtabs', 'fi
nd', 'format', 'format_map', 'index', 'isalnum', 'isalpha', 'isascii', 'is
decimal', 'isdigit', 'isidentifier', 'islower', 'isnumeric', 'isprintabl
e', 'isspace', 'istitle', 'isupper', 'join', 'ljust', 'lower', 'lstrip',
'maketrans', 'partition', 'replace', 'rfind', 'rindex', 'rjust', 'rpartiti
on', 'rsplit', 'rstrip', 'split', 'splitlines', 'startswith', 'strip', 'sw
apcase', 'title', 'translate', 'upper', 'zfill']
<method 'rstrip' of 'str' objects>
```

8. Write statement to check if rstrip method is available in the str class.

Use find function or in

In [6]:

```
print('rstrip' in dir(str))
```

```
True
```

9. WAP to store the following patterns in a string variable and then print them:

In [81]:

```
pat = '*'
pat1 = pat * 5

pat3 = '  * \n' *4

print(pat1)

print(pat3)
```

```
*****
  *
  *
  *
  *
```

In [ ]:

```

```

10. WAP to input a string and replace all space with new lines (\n) and print again.

In [12]:

```
st1 = input("enter an string :" )
op = st1.replace(' ' , '\n')
print(op)
```

```
enter an string :this an example program tofind space and replace with new
line
this
an
example
program
tofind
space
and
replace
with
new
line
```

11. WAP to input complete name(first and last name separated by space) and print first and last name separately along with their length in upper case.

In [3]:

```
fn_sn = input("Enter first name and second name with space between first and second nam
e :" )
loc_sp = fn_sn.find(' ')
## print(loc_sp)

fh_U = (fn_sn[ : loc_sp]).upper()
sh_U = (fn_sn[(loc_sp) + 1  : ]).upper()

print("First name is : ", fh_U , "Length of first name is : " ,len(fh_U))
print("Last name is : ", sh_U , "Length of last  name is : " ,len(sh_U))
```

```
Enter first name and second name with space between first and second name
:learn bay
First name is :  LEARN Length of first name is :  5
Last name is :  BAY Length of last  name is :  3
```

In [ ]:

```

```

12. WAP to input a string and split it into 2 halves. The string can be of any length

In [26]:

```
st12 = input("Enter an  string to split : " )
st_le = len(st12)
st_ind = int((st_le)/2)
print("Total length of string is : ", st_le)
print("String index value is  : ", st_ind)
print("first half of string is :" , st12[ : st_ind])
print("second half of string is : ", st12[st_ind : ])
```

```
Enter an  string to split : words
Total length of string is :  5
String index value is  :  2
first half of string is : wo
second half of string is :  rds
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: