Slicing in String

In [1]:

```
l=[1,5,8,"nikhil","pankaj",56]
l[:]
```

Out[1]:

```
[1, 5, 8, 'nikhil', 'pankaj', 56]
```

In [2]:

```
s="we are the students of AIDS Department"
s[7]
```

Out[2]:

```
't'
```

In [3]:

```
s[0:5]  # -> gives 0,1,2,3,4 th idexed value
```

Out[3]:

```
'we ar'
```

In [5]:

```
s[0:]   # -> gives 0 to len(s)th indexed value
```

Out[5]:

```
'we are the students of AIDS Department'
```

In [6]:

```
s[:10]   # -> gives 0 to 10 th indexed value
```

Out[6]:

```
'we are the'
```

In [7]:

```
s[:]  # gives complete string
```

Out[7]:

```
'we are the students of AIDS Department'
```

In [8]:

```
print(s[])  # throws error
```

```
  Cell In[8], line 1
    print(s[])  # throws error
          ^
SyntaxError: invalid syntax. Perhaps you forgot a comma?
```

In [9]:

```
print(s[:])  # gives complete string [0:len(s)]
```

```
we are the students of AIDS Department
```

In [23]:

```
print(s[2:18:2])  # s[starting point:(ending point-1):increment by (1 is default)]
print(s[18:2:-2])
print(s[:])
print(s[::-1])  # reverse the string
print(s[2:18:-2])  # logical error
print(s[18:2])  # logical error
```

```
 r h tdn
sndt h r
we are the students of AIDS Department
tnemtrapeD SDIA fo stneduts eht era ew
```

In [30]:

```
# backward indexing
print(len(s))
print(s[-38:-1])  # -> it gives (n-1)--->(-1-1)=(-2)th index
print(s[-1:-5])  # logical error
print(s[-38:-1:-1])  # logical error
print(s[-38:0:1])  # logical error (0 is not allowed in backward indexing)
```

```
38
we are the students of AIDS Departmen
```

In [20]:

```
print(s[-1:-38:-1]) # reverse order
```

```
tnemtrapeD SDIA fo stneduts eht era e
```

In [31]:

```
print(len(s))
```

```
38
```

In [34]:

```
print("are" in s)  # "are" is a Substring
print("hgjhkj" in s)
```

```
True
False
```

In [38]:

```
print(s.find("are")) # it gives index of substring if present in string else return -1
print(s.find("dbhjdf"))
```

```
3
-1
```

In [40]:

```
print(s.index("are")) # it gives index of substring if present in string else throws an
print(s.index("dbhjdf"))
```

```
3

---------------------------------------------------------------------------
-
ValueError                                Traceback (most recent call las
t)
Cell In[40], line 2
      1 print(s.index("are")) # it gives index of substring if present in
string else throws an error
----> 2 print(s.index("dbhjdf"))

ValueError: substring not found
```

In [43]:

```
s = "     Vaishnavi mahira       "
print(s)
print(s.strip())  # strip in both side(remove extra spaces)
print(s.rstrip())  # strip in right side but left side remains same
print(s.lstrip())  # strip in left side but right side remains same
```

```
     Vaishnavi mahira
Vaishnavi mahira
     Vaishnavi mahira
Vaishnavi mahira
```

In [44]:

```
s = "!!! Vaishnavi mahira !!!!!"
print(s)
print(s.strip("!"))  # strip in both side(remove substring)
print(s.rstrip("!"))  # strip in right side but left side remains same
print(s.lstrip("!"))  # strip in left side but right side remains same
```

```
!!! Vaishnavi mahira !!!!!
 Vaishnavi mahira
!!! Vaishnavi mahira
 Vaishnavi mahira !!!!!
```

In [48]:

```
s = "-    Vaishnavi mahira     -"
print(s)
print(s.strip(" "))
print(s.rstrip(" "))  #no change in output
print(s.lstrip(" "))
```

```
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
```

In [49]:

```
s = "-    Vaishnavi mahira     -"
print(s)
print(s.strip("i"))
print(s.rstrip("i"))  # no change in output
print(s.lstrip("i"))
```

```
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
-    Vaishnavi mahira     -
```

In [50]:

```
s = "-    Vaishnavi mahira     -"
print(s)
print(s.strip("-"))  # strip in both side(remove substring)
print(s.rstrip("-"))  # strip in right side but left side remains same
print(s.lstrip("-"))  # strip in left side but right side remains same
```

```
-    Vaishnavi mahira     -
    Vaishnavi mahira
-    Vaishnavi mahira
    Vaishnavi mahira     -
```

In [52]:

```
s="hello oo Hello oo Hello oo Hello"
print(s.count("hello"))
print(s.count("Hello"))  # gives the count of substring in base string it is case sensit
```

```
1
3
```

In [53]:

```
print(s.replace("Hell","Hoo"))
```

```
hello oo Hooo oo Hooo oo Hooo
```

In [56]:

```
s="hello oo Hello oo Hello oo Hello"
print(s)
print(id(s))
s = s.replace("Hell","Hoo")
print(s)
print(id(s))
```

```
hello oo Hello oo Hello oo Hello
2461963308656
hello oo Hooo oo Hooo oo Hooo
2461969054448
```

In [58]:

```
s="abf52436dfsghdf"
t="dfhdgbhdjThd"
u="dshjvbjh!#@!hvg3165146"
n="123654125"
print(s.isalpha())  # it checks the string is alphabatical or not (a-z)(A-Z)
print(t.isalpha())
print(u.isalpha())
print(n.isalpha())
```

```
False
True
False
False
```

In [59]:

```
s="abf52436dfsghdf"
t="dfhdgbhdjThd"
u="dshjvbjh!#@!hvg3165146"
n="123654125"
print(s.isalnum())  # it checks the string is alpha numerical or not (a-z)(A-Z)(0-9)
print(t.isalnum())
print(u.isalnum())
print(n.isalnum())
```

```
True
True
False
True
```

In [60]:

```
s="abf52436dfsghdf"
t="dfhdgbhdjThd"
u="dshjvbjh!#@!hvg3165146"
n="123654125"
print(s.isnumeric())  # it checks the string is numerical or not (a-z)(A-Z)
print(t.isnumeric())
print(u.isnumeric())
print(n.isnumeric())
```

```
False
False
False
True
```

In [62]:

```
s=" nikhil vishwakrama"
t="       \n\n"
g="            "
u="nikhilvishwakarma"
print(s.isspace())  # it checks the string has only spaces or not
print(t.isspace())
print(t.isspace())
print(u.isspace())
```

```
False
True
True
False
```

In [64]:

```
s="knfbgjdkbn njdfb"
t="HJDFSVB DSVJ  FSN"
u="tFGBJdd DEbdfb"
n="1236541SBNJKNB  fdbg 25"
print(s.isupper())  # it checks the string is in capital letters or not (A-Z)
print(t.isupper())
print(u.isupper())
print(n.isupper())
```

```
False
True
False
False
```

In [65]:

```
s="knfbgjdkbn njdfb"
t="HJDFSVB DSVJ  FSN"
u="tFGBJdd DEbdfb"
n="1236541SBNJKNB  fdbg 25"
print(s.islower())  # it checks the string is in small letters or not (a-z)
print(t.islower())
print(u.islower())
print(n.islower())
```

```
True
False
False
False
```

In [66]:

```
s="nikhil vishwakarma"

print(s.upper())  # it change the string in capital letters (upper case) or not (A-Z)
print(s.lower())
print(s.capitalize())
```

```
NIKHIL VISHWAKARMA
nikhil vishwakarma
Nikhil vishwakarma
```

In [70]:

```
s="nikhil vishwakarma from aids barnch 2022-26 batch"
l=list(s)
print(l)
print(s)
print(s.split()) # it gives the list
print(s.split("-"))
```

```
['n', 'i', 'k', 'h', 'i', 'l', ' ', 'v', 'i', 's', 'h', 'w', 'a', 'k',
'a', 'r', 'm', 'a', ' ', 'f', 'r', 'o', 'm', ' ', 'a', 'i', 'd', 's', ' ',
'b', 'a', 'r', 'n', 'c', 'h', ' ', '2', '0', '2', '2', '-', '2', '6', ' ',
'b', 'a', 't', 'c', 'h']
nikhil vishwakarma from aids barnch 2022-26 batch
['nikhil', 'vishwakarma', 'from', 'aids', 'barnch', '2022-26', 'batch']
['nikhil vishwakarma from aids barnch 2022', '26 batch']
```

In [78]:

```
x=["1","2","3","4","5","6","7"]
s="*".join(x)
t="".join(x)
u="_".join(x)
print(s)
print(type(s))
print(print(u))
print(print(t))
```

```
1*2*3*4*5*6*7
<class 'str'>
1_2_3_4_5_6_7
None
1234567
None
```

In [ ]: