Data Science & AI
&
NIC - Param

Python-For Data Science

String

Lecture No.- 02

By- Pankaj Sharma Sir

Recap of Previous Lecture

Topic Strings Part-01

Topics to be Covered

Topic Strings Part-02

Topic : Strings

split()

s = "Pankaj Sharma is woost faculty"
① ② ③ ④ ⑤

l = s.split( ) → list of strings

by default ⇒ ' '

21/7/1982

float

30/1982

float

```
l = ["Pankaj", "sharma", "is", "woost", "faculty"]

s = ' '.join(l)
```

s → string

Substring → (in) membership

"Pankaj" s = "Pankaj sir se ek hi admi bacha skta wo ha khud Pankaj sir"
012345
(2)

== !! find() index of first occurance of sub string

Substring → (in) membership

"Pankaj" S = "Pankaj sir se ek hi admi bacha skta wo hai khud Pankaj sir"

(Pankaj: 0 1 2 3 4 5; S: 0 1 2 3 4 5 6 ..... 15)

(2)

S.find(substr, start index, end index)

("Pankaj", 6, 15)

6 → 14

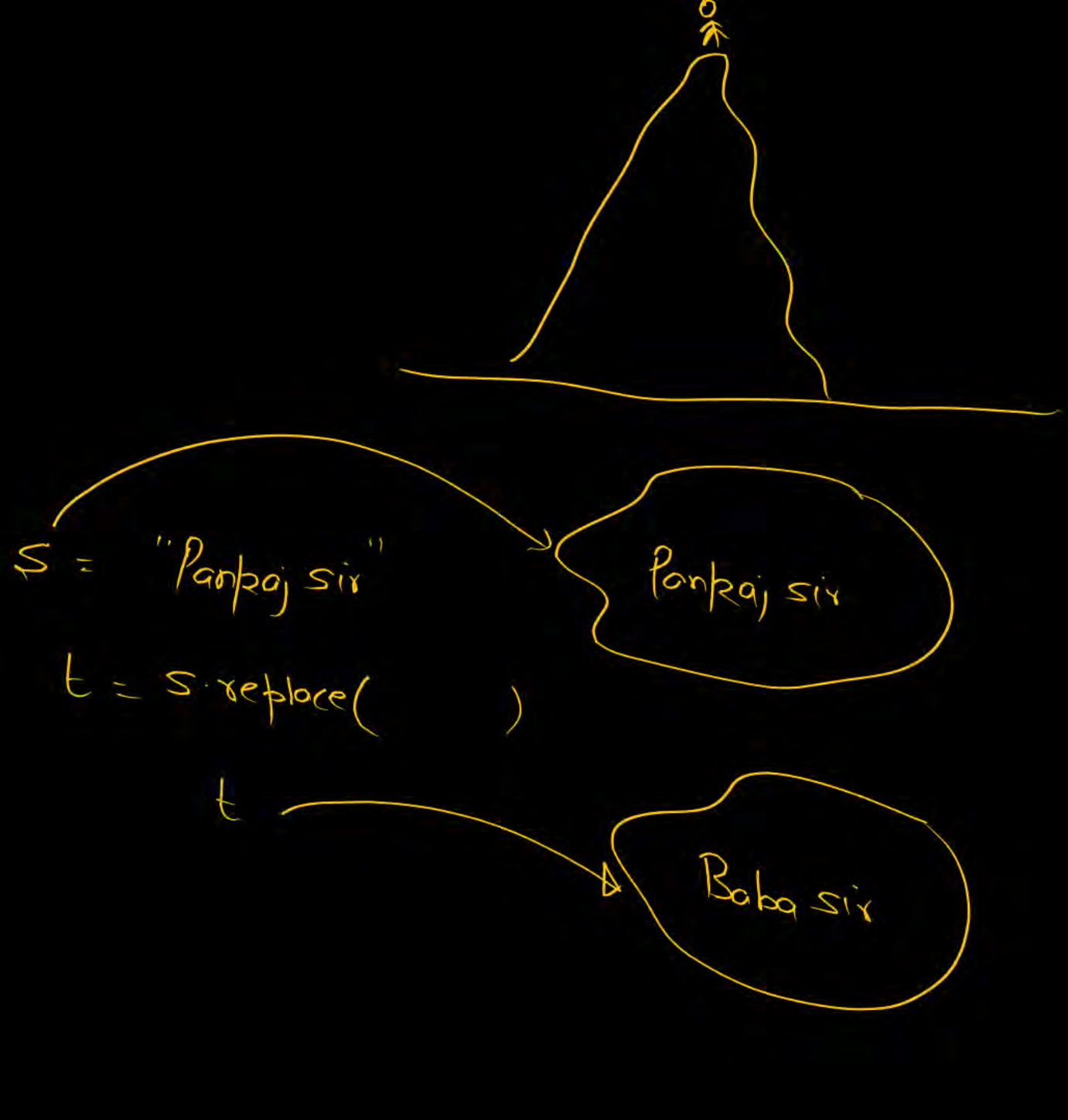
① find()

② index() : same as find

but if the substring is not available

⇒ ValueError

(Error)


s = "Pankaj sir"
Pankaj sir
t = s.replace( )
t
Baba sir

I/P : "Pankaj sharma sir"

O/P : "sir sharma Pankaj"

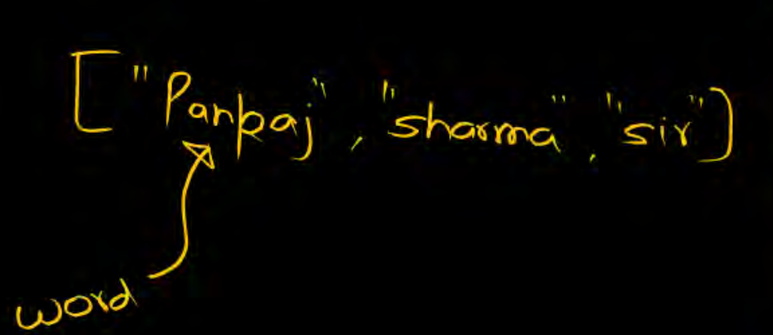
→ list of words

⇒

```
t = input().split()
x = ' '.join(t[::-1])
print(x)
```

I/P : "Pankaj sharma sir"

O/P : "jaknaP amrahs ris"



l ⇒ list of words reversed

ind word ⇒ reverse

```
l = []
t = input().split()

for word in t:

    l.append(word[::-1])

x = ' '.join(l)
print(x)
```

H.W

- startswith()
- endswith()

→ True/False

- upper()
- lower()
- swapcase()

⇒

```
s = "Pankaj"
print(s.swapcase())
```

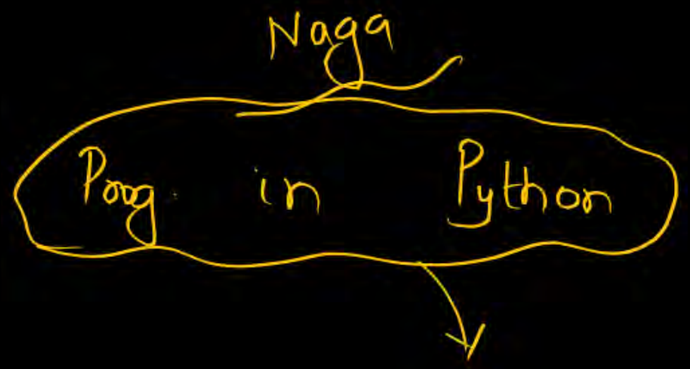
pANKAJ

H.W

formatting → .format

Problem solving on string

List



Day 11 Python

In [2]:
```
#split
s="pankaj sharma is worst faculty"
l=s.split()
```

In [3]:
```
type(l)
```

Out[3]:
```
list
```

In [4]:
```
print(l)
```

```
['pankaj', 'sharma', 'is', 'worst', 'faculty']
```

In [6]:
```
#default seperator for split() is space
#it returns list of strings
a="21/7/1982"
l=a.split('/')
print(l)
```

```
['21', '7', '1982']
```

In [7]:
```
#join method
l=['pankaj', 'sharma', 'is', 'worst', 'faculty']
a=' '.join(l)
print(a)
```

```
pankaj sharma is worst faculty
```

In [8]:
```
#join method
l=['pankaj', 'sharma', 'is', 'worst', 'faculty']
a='@'.join(l)
print(a)
```

```
pankaj@sharma@is@worst@faculty
```

In [9]:
```
#to print even length words in the string
s="pankaj sir is teaching python"
for word in s.split():
    if len(word)%2==0:
        print(word)
```

```
pankaj
is
teaching
python
```

In [12]:
```
#pankaj sharma sir ==>p s sir
#amar nath singh  ==>a n singh

#except last word iterate on every word and take only its 1st character in a list
s=input()
a=s.split()
updated=[]
for word in a[ : len(a)-1]: #iterate over all but last
    updated.append(word[0]) #no validation
updated.append(a[len(a)-1]) #Last word append
```

```
print(' '.join(updated))
```

```
pankaj sharma sir
p s sir
```

In [13]:
```
#find()
#it returns index of first occurence of the given substring,if it is not present then
s="Pankaj sir is Pankaj sir"
print(s.find("Pankaj"))
```

```
0
```

In [14]:
```
print(s.find("is"))
```

```
11
```

In [16]:
```
print(s.find("Ankit sir"))
```

```
-1
```

In [17]:
```
#there is another version of find () in which u can tell from whetre to start
# searching
#find(sub,startindex,endindex)#search sub in between startindex to endindex-1 and retu
#if it is present otherwise returns -1
s="pankaj sir is a good faculty"
print(s.find("pankaj",10,20))
```

```
-1
```

In [18]:
```
s="pankaj sir is a good faculty"
print(s.find("good",10,20))
```

```
16
```

In [20]:
```
s="pankaj sir is pankaj sir"
print(s.rfind("pankaj"))#last occ ka index return krta hai
#rindex()===>ValueError if sub not present
```

```
14
```

In [21]:
```
#finding/counting substring
s="pankaj sir is pankaj sir"
print(s.count("pankaj"))#total number of occ of pankaj in s
```

```
2
```

In [22]:
```
s="pankaj sir is pankaj sir"
print(s.count("pankaj",1,len(s)))
```

```
1
```

In [23]:
```
#replace a string with another string
s="Pankaj sir is a good faculty"
t=s.replace("Pankaj","Baba")
```

In [24]:
```
print(t)
```

```
Baba sir is a good faculty
```

In [25]:
```
print(s)
```

```
Pankaj sir is a good faculty
```

In [26]:
```
#string is immutable
```

In [27]:
```
t=input().split()
x=' '.join(t[::-1])
print(x)
```

```
pankaj sharma sir
sir sharma pankaj
```

In [28]:
```
t=input().split()
l=[]
for word in t:
    l.append(word[::-1])
x=' '.join(l)
print(x)
```

```
pankaj sharma sir
jaknap amrahs ris
```

In [29]:
```
#some more methods
s="pankaj"
print(s.isalnum())#return True if all characters are alphanumeric a-z,A-Z,0-9
```

```
True
```

In [30]:
```
s="JamesBond007"
print(s.isalnum())
```

```
True
```

In [31]:
```
s="pankaj"
print(s.isalpha())#returns True if all the characters are alphabet
```

```
True
```

In [32]:
```
s="JamesBond007"
print(s.isalpha())
```

```
False
```

In [33]:
```
s='1234'
print(s.isdigit())#returns True if all characters are digits
```

```
True
```

In [34]:
```
s="jamesbond007"
print(s.isdigit())
```

```
False
```

In [35]:
```
s="pankaj"
print(s.islower())#returns True if all the characters are in lowercase
```

```
True
```

In [36]:
```
s="JamesBond"
print(s.islower())
```

```
False
```

In [37]:
```
s="jamesbond007"
print(s.islower())
```

```
True
```

In [ ]:
```
#similarly isupper()
#isspace()
```

THANK - YOU