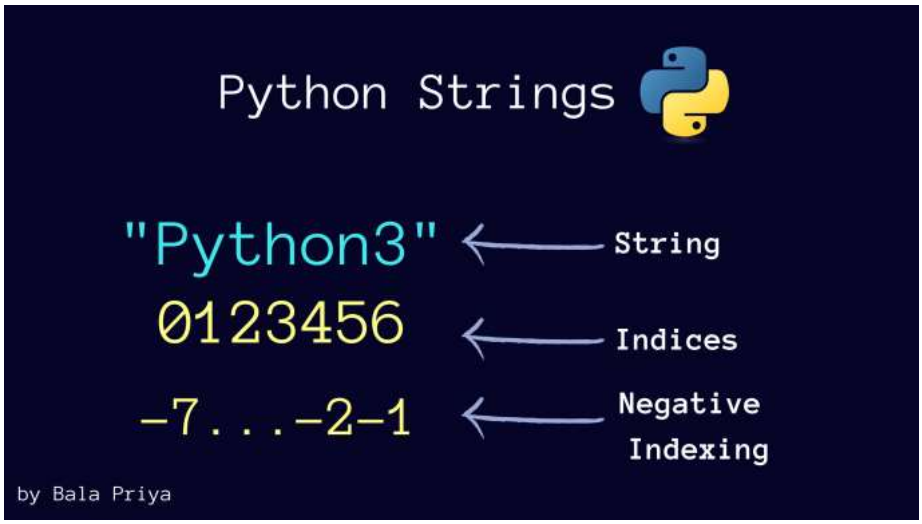
Python Strings



In computer programming, a string is a sequence of characters. For example, "Alooparatha" is a string containing a sequence of characters 'A', 'l', 'o', 'o','p','a','r','a','t','h','a'

In [40]:
```
a='Aishwarya' #single quotation
print(a)
```

```
Aishwarya
```

In [41]:
```
a="Aishwarya" #double quotation
print(a)
```

```
Aishwarya
```

In [43]:
```
#accessing the characters of your string(index)
#variable[index]
a[6]
```

Out[43]: 'r'

In [44]:
```
a[-6] #negative indexing
```

Out[44]: 'h'

In [6]:
```
a[1:4] #slicing
```

Out[6]: 'ish'

In [51]:
```
a[-4:]
```

Out[51]: 'arya'

In [54]:
```
a[-2:-6]
```

Out[54]: ''

In [45]:
```
a[-6:-2]
```

Out[45]: 'hwar'

In [55]:
```
a[::-1] #reversing
```

Out[55]: 'ayrawhsiA'

In [52]:
```
a[:4]
```

Out[52]: 'Aish'

In [57]:
```
a[1:7:2] #Aishwarya start:stop:step
```

Out[57]:
```
'iha'
```

In [8]:
```
#Python strings are immutable,we cant update the characters/elements.

a[2]='r'
a
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-8-39b4d9e37dbd> in <module>
      1 #Python strings are immutable
----> 2 a[2]='r'
      3 a

TypeError: 'str' object does not support item assignment
```

In [ ]:
```

```

In [53]:
```
a[-3:]
```

Out[53]:
```
'rya'
```

In [9]:
```
print(a)
```

```
Aishwarya
```

In [10]:
```
a="Siya" #we can assign the variable name to a new string.
a
```

Out[10]:
```
'Siya'
```

In [11]:
```
a
```

Out[11]:
```
'Siya'
```

In [13]:
```
# multiline string
#We can also create a multiline string in Python. For this, we use triple double quotes
#""" or triple single quotes '''.
S = """
Kyun rokna abh yeh karwaan
jaaye wahi leh jaaye jahaan
Besabriyaan
"""

print(S)
```

```
Kyun rokna abh yeh karwaan
jaaye wahi leh jaaye jahaan
Besabriyaan
```

In [58]:
```
name = 'Priyanshu' #formatting a string
country = 'World'

print(f'{name} is the Prime Minister of {country}')
```

```
Priyanshu is the Prime Minister of World
```

In [26]:
```
b='India is our Country'
b
```

Out[26]:
```
'India is our Country'
```

In [59]:
```
b.upper() #uppercase
```

Out[59]:
```
'INDIA IS OUR COUNTRY'
```

In [60]:
```
b.lower() #Lowercase
```

Out[60]:
```
'india is our country'
```

In [62]:
```
b.partition('is')
```

Out[62]:
```
('India ', 'is', ' our Country')
```

In [67]:
```
b.replace('India','Hindustan')
```

Out[67]:
```
'Hindustan is our Country'
```

In [63]:
```
z='India is our Country.New Delhi is the capital'
z
```

Out[63]:
```
'India is our Country.New Delhi is the capital'
```

In [68]:
```
b.find('UK')
```

Out[68]:
```
-1
```

In [66]:
```
z.partition('is')
```

Out[66]:
```
('India ', 'is', ' our Country.New Delhi is the capital')
```

In [30]:
```
b
```

Out[30]:
```
'India is our Country'
```

In [31]:
```
b.find('Hindustan')
```

Out[31]:
```
-1
```

In [69]:
```
b.find('i')
```

Out[69]:
```
3
```

In [79]:
```
a="Yippie so cool" #removes spaces
```

In [80]:
```
a.strip()
```

Out[80]:
```
'Yippie so cool'
```

In [84]:
```
f='India@@@$$$'
f.rstrip('$')
```

Out[84]:
```
'India@@@'
```

In [36]:
```
b.split(' ') #by space
```

Out[36]:
```
['India', 'is', 'our', 'Country']
```

In [86]:
```
b.startswith('UK')
```

Out[86]:
```
False
```

In [38]:
```
b.isnumeric()
```

Out[38]:
```
False
```

In [87]:
```
b.endswith('Country')
```

Out[87]:
```
True
```

In [98]:
```
b.index('our') #India is our Country
```

Out[98]:
```
9
```

In [88]:
```
b.endswith('y')
```

Out[88]:
```
True
```

In [95]:
```
g='1123'
g.isdigit()
```

Out[95]:
```
True
```

In [96]:
```
g.isalpha()
```

Out[96]:
```
False
```

In [99]:
```
b.capitalize()
```

Out[99]:
```
'India is our country'
```

In [100]:
```
b.count('i')
```

Out[100]:
```
2
```

In [102]:
```
len(b)
```

Out[102]:
```
20
```