## **Topics**

- Methods in strings
- some tasks on strings
- Data Structures

```
In [4]:
                    1 | s="Python Programming"
                     2 type(s)
 Out[4]: str
 In [3]:
                         s[7:20]
 Out[3]: 'Programming'
 In [5]:
                    1 print(dir(str))
                 ['__add__', '__class__', '__contains__', '__delattr__', '__dir__', '__doc__',
'__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__', '__getnewa
rgs__', '__gt__', '__hash__', '__init__', '__init_subclass__', '__iter__', '__l
e__', '__len__', '__lt__', '__mod__', '__mul__', '__new__', '__reduce
__', '__reduce_ex__', '__repr__', '__rmod__', '__rmul__', '__setattr__', '__siz
eof__', '__str__', '__subclasshook__', 'capitalize', 'casefold', 'center', 'cou
nt'__'oncode', 'ondowith', 'oxpandtabe', 'find', 'format', 'format man', 'indo
                 nt', 'encode', 'endswith', 'expandtabs', 'find', 'format', 'format_map', 'inde x', 'isalnum', 'isalpha', 'isascii', 'isdecimal', 'isdigit', 'isidentifier', 'i slower', 'isnumeric', 'isprintable', 'isspace', 'istitle', 'isupper', 'join',
                  'ljust', 'lower', 'lstrip', 'maketrans', 'partition', 'replace', 'rfind', 'rind
                 ex', 'rjust', 'rpartition', 'rsplit', 'rstrip', 'split', 'splitlines', 'startsw
                 ith', 'strip', 'swapcase', 'title', 'translate', 'upper', 'zfill']
In [37]:
                    1 s = "python programming"
                    2 print(s.capitalize())
                    3 s = "PythoN programming"
                         print(s.capitalize())
                     5
                 Python programming
                 Python programming
In [11]:
                    1 | s = "python programming"
                     2 | s.istitle()
                    3 s.title()
Out[11]: 'Python Programming'
```

```
In [12]:
          1 s = "PythoN programming"
          2 print(s.casefold())
          3 print(s.islower())
          4 print(s.lower())
          5 print(s.isupper())
          6 print(s.upper())
         python programming
         False
         python programming
         False
         PYTHON PROGRAMMING
In [14]:
          1 s = "Python"
          2 print(s.isalpha())
          3 | s1 = "Python Programming" # pythonprogramming
          4 print(s1.isalpha())
         True
         False
In [20]:
          1 | s1 = "Python Programming"
          3 for i in s1:
                 print(i,end= " ")
          4
          5 print()
          6 | for i in range(len(s1)): # for i in range(18)
                 print(s1[i], end = ' ')
          7
          8
         Python Programming
         Python Programming
          1 | s1 = "Python Programming"
In [23]:
          2 s2 =""
          3 for i in s1:
          4
                 if i.isalpha():
          5
                     s2+=i
          6 print(s2)
          7
```

PythonProgramming

```
In [35]:
           1 # Python#
                         # U~ymts(
           3 s = "Python#"
           4
             for i in s:
           5
                  t = ord(i)+5 # 80,121 # 85,126
           6
                  u = chr(t)
           7
                  print(u,end = "")
           8
         U~ymts(
         1 ord("A")
In [31]:
Out[31]: 65
In [32]:
             chr(65)
Out[32]: 'A'
In [42]:
           1 | s= "Python Programmming Python"
           2 s.count("Python")
Out[42]: 2
In [43]:
           1 s[5]
Out[43]: 'n'
In [44]:
              s.index("g")
Out[44]: 10
In [48]:
             s= "Python Programmming Python"
           1
           2
             for i in range(len(s)):
           3
                  if s[i] =="g":
                      print(i)
           4
         10
         18
In [50]:
           1 s = "12344 123"
           2 s.isdigit()
```

Out[50]: False

```
In [51]:
           1 | s = "Python123"
           2 print(s.isalnum())
           3 | s1 = "Python 123"
             print(s1.isalnum())
           5
         True
         False
In [56]:
           1 | s= "Python Programmming Python"
           2 | s1 = s.split()
           3 type(s1)
Out[56]: list
In [59]:
           1 | s = "Python 123".split(" ")
           2 type(s)
           3 s
Out[59]: ['Python', '123']
In [62]:
           1 s = "Python123"
           2 s.split("@")
Out[62]: ['Python123']
In [64]:
           1 "$".join(s)
Out[64]: 'P$y$t$h$o$n$1$2$3'
In [69]:
           1 | s = "Python programming".split()
           2 print(s)
           3 "$".join(s)
         ['Python', 'programming']
Out[69]: 'Python$programming'
In [72]:
           1 s = "Python\nProgramming\n123"
           2 s.splitlines()
           3 s.split("\n")
Out[72]: ['Python', 'Programming', '123']
In [79]:
           1 | s = "Python programming" # Python$programming
           2 s.replace(" ", "$")
           3 s.replace(" ","")
Out[79]: 'Pythonprogramming'
```

```
In [77]:
           1 s1 = "
                                 Python
           2 print(s.lstrip())
           3 print(s.rstrip())
           4 print(s.strip())
         Python
                      Python
         Python
In [84]:
             s.center(21, "@")
Out[84]: '@@Python programming@'
In [82]:
              len(s)
Out[82]: 18
              1. s = "Python Programming"
           2
             output: PYTHON programming
           3
           4
           5
              2. s = "Pyt@hon P#rogra$mming"
           7
             output: @#$
           1 | s = "Python Programming"
In [89]:
           2 | t = s.split()
           3 print(t)
           4 final = t[0].upper()
           5
             final+" "+t[1]
           6
         ['Python', 'Programming']
Out[89]: 'PYTHON Programming'
In [90]:
           1
              s = "Pyt@hon P#rogra$mming"
             s1 = ""
           3
              for i in s:
           4
                  if i.isalpha()or i.isdigit():
           5
                      continue
           6
                  else:
           7
                      s1+=i
              print(s1)
         @ #$
In [ ]:
           1
```