

List and its default functions

In [1]:

```
list1 = ['physics', 'chemistry', 1997, 2000];
```

In [2]:

```
list2 = [1, 2, 3, 4, 5 ];
```

In [3]:

```
list3 = ["a", "b", "c", "d"]
```

In [9]:

```
print(list1[0])
```

physics

In [11]:

```
print(list2[2])
```

3

In [13]:

```
print(list1)
```

['physics', 'chemistry', 1997, 2000]

In [14]:

```
del list1[2];
```

In [15]:

```
print(list1)
```

['physics', 'chemistry', 2000]

In [16]:

```
['Hi!'] * 4
```

Out[16]:

['Hi!', 'Hi!', 'Hi!', 'Hi!']

In [17]:

```
len([1, 2, 3])
```

Out[17]:

3

In [18]:

```
[1, 2, 3] + [4, 5, 6]
```

Out[18]:

```
[1, 2, 3, 4, 5, 6]
```

In [19]:

```
3 in [1, 2, 3]
```

Out[19]:

True

In [21]:

```
L = ['spam', 'Spam', 'SPAM!']
```

In [22]:

```
L[2]
```

Out[22]:

```
'SPAM!'
```

In [23]:

```
L[-2]
```

Out[23]:

```
'Spam'
```

In [24]:

```
L[1:]
```

Out[24]:

```
['Spam', 'SPAM!']
```

In [35]:

```
list1, list2 = [123, 'xyz', 'zara'], [456, 'abc']
```

In [37]:

```
print("First list length : ", len(list1))
```

First list length : 3

In [39]:

```
print("Second list length : ", len(list2))
```

Second list length : 2

In [51]:

```
list1, list2 = ['xyz', 'zara', 'abc'], [456, 123]
```

In [48]:

```
max(list1)
```

Out[48]:

'zara'

In [52]:

```
max(list2)
```

Out[52]:

456

In [53]:

```
min(list1)
```

Out[53]:

'abc'

In [54]:

```
min(list2)
```

Out[54]:

123

In [55]:

```
aTuple = (123, 'xyz', 'zara', 'abc');
```

In [56]:

```
aList = list(aTuple)
```

In [57]:

```
aList
```

Out[57]:

```
[123, 'xyz', 'zara', 'abc']
```

In [58]:

```
aList = [123, 'xyz', 'zara', 'abc'];
```

In [59]:

```
aList.append( 2009 );
```

In [60]:

```
aList
```

Out[60]:

```
[123, 'xyz', 'zara', 'abc', 2009]
```

In [61]:

```
aList = [123, 'xyz', 'zara', 'abc', 123];
```

In [62]:

```
aList.count(123)
```

Out[62]:

```
2
```

In [63]:

```
aList.count('zara')
```

Out[63]:

```
1
```

In [1]:

```
aList = [123, 'xyz', 'zara', 'abc', 123];
```

In [2]:

```
bList = [2009, 'manni'];
```

In [3]:

```
aList.extend(bList)
```

In [4]:

```
aList
```

Out[4]:

```
[123, 'xyz', 'zara', 'abc', 123, 2009, 'manni']
```

In [5]:

```
aList = [123, 'xyz', 'zara', 'abc'];
```

In [6]:

```
aList.index( 'xyz' )
```

Out[6]:

```
1
```

In [7]:

```
aList.index( 'zara' )
```

Out[7]:

```
2
```

In [8]:

```
aList = [123, 'xyz', 'zara', 'abc']
```

In [9]:

```
aList.insert( 3, 2009)
```

In [10]:

```
aList
```

Out[10]:

```
[123, 'xyz', 'zara', 2009, 'abc']
```

In [11]:

```
aList = [123, 'xyz', 'zara', 'abc'];
```

In [12]:

```
aList.pop()
```

Out[12]:

```
'abc'
```

In [13]:

```
aList.pop(2)
```

Out[13]:

```
'zara'
```

In [14]:

```
aList = [123, 'xyz', 'zara', 'abc', 'xyz'];
```

In [15]:

```
aList.remove('xyz');
```

In [16]:

```
aList
```

Out[16]:

```
[123, 'zara', 'abc', 'xyz']
```

In [17]:

```
aList.remove('abc');
```

In [18]:

```
aList
```

Out[18]:

```
[123, 'zara', 'xyz']
```

In [19]:

```
aList = [123, 'xyz', 'zara', 'abc', 'xyz'];
```

In [20]:

```
aList.reverse();
```

In [21]:

```
aList
```

Out[21]:

```
['xyz', 'abc', 'zara', 'xyz', 123]
```

In [25]:

```
aList = ['xyz', 'zara', 'abc', 'xyz'];
```

In [23]:

```
aList
```

Out[23]:

```
[123, 'xyz', 'zara', 'abc', 'xyz']
```

In [26]:

```
aList.sort();
```

In [27]:

```
aList
```

Out[27]:

```
['abc', 'xyz', 'xyz', 'zara']
```

Dictionary and its default functions

In [29]:

```
dict = {'Name': 'Zara', 'Age': 7, 'Class': 'First'}
```

In [30]:

```
dict['Name']
```

Out[30]:

```
'Zara'
```

In [31]:

```
dict['Age']
```

Out[31]:

```
7
```

In [32]:

```
dict = {'Name': 'Zara', 'Age': 7, 'Class': 'First'}
```

In [36]:

```
dict['Age'] = 8;
```

In [37]:

```
dict['School'] = "DPS School";
```

In [38]:

```
dict['Age']
```

Out[38]:

8

In [39]:

```
dict['School']
```

Out[39]:

'DPS School'

In [40]:

```
dict = {'Name': 'Zara', 'Age': 7, 'Class': 'First'}
```

In [41]:

```
del dict['Name'];
```

In [42]:

```
dict.clear();
```

In [43]:

```
del dict ;
```

In [47]:

```
dict
```

Out[47]:

dict

In [48]:

```
dict = {'Name': 'Zara', 'Age': 7, 'Name': 'Manni'}
```

In [49]:

```
dict['Name']
```

Out[49]:

'Manni'

In [52]:

```
dict1 = {'Name': 'Zara', 'Age': 7};
```


In [54]:

```
len(dict)
```

Out[54]:

2

In [55]:

```
str(dict1)
```

Out[55]:

```
"{'Name': 'Zara', 'Age': 7}"
```

In [58]:

```
dict = {'Name': 'Zara', 'Age': 7};
```

In [59]:

```
type(dict)
```

Out[59]:

dict

In [60]:

```
dict = {'Name': 'Zara', 'Age': 7};
```

In [61]:

```
len(dict)
```

Out[61]:

2

In [62]:

```
dict.clear()
```

In [63]:

```
len(dict)
```

Out[63]:

0

In [64]:

```
dict1 = {'Name': 'Zara', 'Age': 7};
```

In [66]:

```
dict2 = dict1.copy()
```

In [67]:

```
str(dict2)
```

Out[67]:

```
"{'Name': 'Zara', 'Age': 7}"
```

In [68]:

```
seq = ('name', 'age', 'sex')
```

In [69]:

```
dict = dict.fromkeys(seq)
```

In [70]:

```
str(dict)
```

Out[70]:

```
"{'name': None, 'age': None, 'sex': None}"
```

In [71]:

```
dict = dict.fromkeys(seq, 10)
```

In [72]:

```
str(dict)
```

Out[72]:

```
"{'name': 10, 'age': 10, 'sex': 10}"
```

In [74]:

```
dict = {'Name': 'Zabra', 'Age': 7}
```

In [75]:

```
dict.get('Age')
```

Out[75]:

```
7
```

In [76]:

```
dict.get('Education', "Never")
```

Out[76]:

'Never'

In [83]:

```
dict = {'Name': 'Zara', 'Age': 7}
```

In [86]:

```
dict.items()
```

Out[86]:

```
dict_items([('Name', 'Zara'), ('Age', 7)])
```

In [87]:

```
dict = {'Name': 'Zara', 'Age': 7}
```

In [88]:

```
dict.keys()
```

Out[88]:

```
dict_keys(['Name', 'Age'])
```

In [89]:

```
dict = {'Name': 'Zara', 'Age': 7}
```

In [90]:

```
dict.setdefault('Age', None)
```

Out[90]:

7

In [92]:

```
dict.setdefault('Sex', None)
```

In [93]:

```
dict = {'Name': 'Zara', 'Age': 7}
```

In [94]:

```
dict2 = {'Sex': 'female' }
```

In [95]:

```
dict.update(dict2)
```

In [96]:

```
dict
```

Out[96]:

```
{'Name': 'Zara', 'Age': 7, 'Sex': 'female'}
```

In [97]:

```
dict = {'Name': 'Zara', 'Age': 7}
```

In [98]:

```
dict.values()
```

Out[98]:

```
dict_values(['Zara', 7])
```

sets and its default functions

In [100]:

```
my_set = {1, 2, 3}
```

In [101]:

```
print(my_set)
```

```
{1, 2, 3}
```

In [102]:

```
my_set = {1.0, "Hello", (1, 2, 3)}
```

In [103]:

```
print(my_set)
```

```
{1.0, (1, 2, 3), 'Hello'}
```

In [104]:

```
my_set = set([1, 2, 3, 2])
```

In [105]:

```
print(my_set)
```

```
{1, 2, 3}
```

In [107]:

```
my_set = {1, 2, 3, 4, 3, 2}
```

In [108]:

```
print(my_set)
```

```
{1, 2, 3, 4}
```

In [109]:

```
Days=set(["Mon","Tue","Wed","Thu","Fri","Sat","Sun"])
```

In [110]:

```
Months={"Jan","Feb","Mar"}
```

In [111]:

```
Dates={21,22,17}
```

In [112]:

```
print(Days)
```

```
{'Mon', 'Thu', 'Sat', 'Sun', 'Wed', 'Tue', 'Fri'}
```

In [113]:

```
print(Months)
```

```
{'Jan', 'Mar', 'Feb'}
```

In [114]:

```
print(Dates)
```

```
{17, 21, 22}
```

In [115]:

```
Days=set(["Mon","Tue","Wed","Thu","Fri","Sat","Sun"])
```

In [118]:

```
print(Days)
```

```
{'Mon', 'Thu', 'Sat', 'Sun', 'Wed', 'Tue', 'Fri'}
```

In [119]:

```
Days=set(["Mon","Tue","Wed","Thu","Fri","Sat"])
```

In [120]:

```
Days.add("Sun")
```

In [121]:

```
print(Days)
```

```
{'Mon', 'Thu', 'Sat', 'Sun', 'Wed', 'Tue', 'Fri'}
```

In [122]:

```
Days=set(["Mon","Tue","Wed","Thu","Fri","Sat"])
```

In [123]:

```
Days.discard("Sun")
```

In [124]:

```
print(Days)
```

```
{'Mon', 'Thu', 'Sat', 'Wed', 'Tue', 'Fri'}
```

In [125]:

```
DaysA = set(["Mon","Tue","Wed"])
```

In [128]:

```
DaysB = set(["Wed","Thu","Fri","Sat","Sun"])
```

In [130]:

```
AllDays = DaysA|DaysB
```

In [131]:

```
print(AllDays)
```

```
{'Mon', 'Thu', 'Sat', 'Sun', 'Wed', 'Tue', 'Fri'}
```

In [132]:

```
DaysA = set(["Mon","Tue","Wed"])
```

In [133]:

```
DaysB = set(["Wed","Thu","Fri","Sat","Sun"])
```

In [134]:

```
AllDays = DaysA & DaysB
```

In [136]:

```
print(AllDays)
```

```
{'Wed'}
```

In [137]:

```
DaysA = set(["Mon", "Tue", "Wed"])
```

In [138]:

```
DaysB = set(["Wed", "Thu", "Fri", "Sat", "Sun"])
```

In [139]:

```
AllDays = DaysA - DaysB
```

In [140]:

```
print(AllDays)
```

```
{'Mon', 'Tue'}
```

In [141]:

```
DaysA = set(["Mon", "Tue", "Wed"])
```

In [142]:

```
DaysB = set(["Mon", "Tue", "Wed", "Thu", "Fri", "Sat", "Sun"])
```

In [143]:

```
SubsetRes = DaysA <= DaysB
```

In [144]:

```
SupersetRes = DaysB >= DaysA
```

In [145]:

```
print(SubsetRes)
```

```
True
```

In [146]:

```
print(SupersetRes)
```

```
True
```

In [147]:

```
my_set = {1, 3, 4, 5, 6}
```

In [148]:

```
my_set.discard(4)
```

In [149]:

```
print(my_set)
```

```
{1, 3, 5, 6}
```

Tuple and explore default methods

In [150]:

```
tup1 = ('physics', 'chemistry', 1997, 2000);
```

In [151]:

```
tup2 = (1, 2, 3, 4, 5 );
```

In [152]:

```
tup3 = "a", "b", "c", "d";
```

In [153]:

```
tup1 = ();
```

In [154]:

```
tup1 = (50,);
```

In [157]:

```
print(tup1[0]);
```

```
50
```

In [158]:

```
print(tup2[1:5]);
```

```
(2, 3, 4, 5)
```

In [159]:

```
tup1 = (12, 34.56);
```


In [160]:

```
tup2 = ('abc', 'xyz');
```

In [162]:

```
tup3 = tup1 + tup2;
```

In [164]:

```
print(tup3);
```

```
(12, 34.56, 'abc', 'xyz')
```

In [165]:

```
tup = ('physics', 'chemistry', 1997, 2000);
```

In [167]:

```
print(tup);
```

```
('physics', 'chemistry', 1997, 2000)
```

In [168]:

```
del tup;
```

In [174]:

```
tup = ('physics', 'chemistry', 1997, 2000);
```

In [176]:

```
len((1, 2, 3))
```

Out[176]:

```
3
```

In [177]:

```
(1, 2, 3) + (4, 5, 6)
```

Out[177]:

```
(1, 2, 3, 4, 5, 6)
```

In [178]:

```
3 in (1, 2, 3)
```

Out[178]:

```
True
```

In [182]:

```
('Hi!',) * 4
```

Out[182]:

```
('Hi!', 'Hi!', 'Hi!', 'Hi!')
```

In [183]:

```
L = ('spam', 'Spam', 'SPAM!')
```

In [184]:

```
L[2]
```

Out[184]:

```
'SPAM!'
```

In [185]:

```
L[-2]
```

Out[185]:

```
'Spam'
```

In [186]:

```
L[1:]
```

Out[186]:

```
('Spam', 'SPAM!')
```

In [188]:

```
print('abc', -4.24e93, 18+6.6j, 'xyz');
```

```
abc -4.24e+93 (18+6.6j) xyz
```

In [189]:

```
x, y = 1, 2;
```

In [190]:

```
print(x,y)
```

```
1 2
```

In [195]:

```
tuple1, tuple2 = (123, 'xyz', 'zara'), (456, 'abc')
```

In [196]:

```
len(tuple1)
```

Out[196]:

3

In [197]:

```
len(tuple2)
```

Out[197]:

2

In [201]:

```
tuple1, tuple2 = ('xyz', 'zara', 'abc'), (456, 700, 200)
```

In [202]:

```
max(tuple1)
```

Out[202]:

'zara'

In [203]:

```
max(tuple2)
```

Out[203]:

700

In [204]:

```
min(tuple1)
```

Out[204]:

'abc'

In [205]:

```
min(tuple2)
```

Out[205]:

200

In [206]:

```
aList = [123, 'xyz', 'zara', 'abc']
```

In [207]:

```
aTuple = tuple(aList)
```

In [208]:

```
print(aTuple)
```

```
(123, 'xyz', 'zara', 'abc')
```

Strings and explore default methods

In [209]:

```
var1 = 'Hello World!'
```

In [210]:

```
var2 = "Python Programming"
```

In [211]:

```
print(var1[0])
```

```
H
```

In [212]:

```
print(var2[1:5])
```

```
ytho
```

In [213]:

```
var1 = 'Hello World!'
```

In [214]:

```
print(var1[:6] + 'Python')
```

```
Hello Python
```

In [215]:

```
print("My name is %s and weight is %d kg!" % ('Zara', 21))
```

```
My name is Zara and weight is 21 kg!
```

In [216]:

```
para_str = """this is a long string that is made up of
several lines and non-printable characters such as
TAB ( \t ) and they will show up that way when displayed.
NEWLINES within the string, whether explicitly given like
this within the brackets [ \n ], or just a NEWLINE within
the variable assignment will also show up.
"""
```

In [218]:

```
print(para_str)
```

```
this is a long string that is made up of
several lines and non-printable characters such as
TAB (    ) and they will show up that way when displayed.
NEWLINES within the string, whether explicitly given like
this within the brackets [
    ], or just a NEWLINE within
the variable assignment will also show up.
```

In [219]:

```
print('C:\\nowhere')
```

```
C:\nowhere
```

In [222]:

```
print(r'C:\\nowhere')
```

```
C:\\nowhere
```

In [223]:

```
print(u'Hello, world!')
```

```
Hello, world!
```

In [224]:

```
str = "this is string example....wow!!!";
```

In [225]:

```
print("str.capitalize() : ", str.capitalize())
```

```
str.capitalize() : This is string example....wow!!!
```

In [226]:

```
str = "this is string example....wow!!!"
```

In [227]:

```
print("str.center(40, 'a') : ", str.center(40, 'a'))
```

```
str.center(40, 'a') : aaaathis is string example....wow!!!aaaa
```

In [228]:

```
str = "this is string example....wow!!!";
```

In [229]:

```
sub = "i";
```

In [230]:

```
print("str.count(sub, 4, 40) : ", str.count(sub, 4, 40))
```

```
str.count(sub, 4, 40) : 2
```

In [231]:

```
sub = "wow";
```

In [233]:

```
print("str.count(sub) : ", str.count(sub))
```

```
str.count(sub) : 1
```

In [246]:

```
str = "this is string example....wow!!!";
```

In [247]:

```
suffix = "wow!!!";
```

In [248]:

```
str.endswith(suffix)
```

Out[248]:

```
True
```

In [249]:

```
str.endswith(suffix,20)
```

Out[249]:

```
True
```

In [250]:

```
suffix = "is";
```

In [251]:

```
str.endswith(suffix, 2, 4)
```

Out[251]:

True

In [252]:

```
str.endswith(suffix, 2, 6)
```

Out[252]:

False

In [253]:

```
str = "this is\tstring example....wow!!!";
```

In [254]:

```
str
```

Out[254]:

```
'this is\tstring example....wow!!!'
```

In [255]:

```
str.expandtabs()
```

Out[255]:

```
'this is string example....wow!!!'
```

In [256]:

```
str.expandtabs(16)
```

Out[256]:

```
'this is          string example....wow!!!'
```

In [257]:

```
str1 = "this is string example....wow!!!";
```

In [258]:

```
str2 = "exam";
```

In [259]:

```
str1.find(str2)
```

Out[259]:

15

In [260]:

```
str1.find(str2, 10)
```

Out[260]:

15

In [261]:

```
str1.find(str2, 40)
```

Out[261]:

-1

In [262]:

```
str1.index(str2)
```

Out[262]:

15

In [263]:

```
str1.index(str2, 10)
```

Out[263]:

15

In [264]:

```
str = "this2009";
```

In [265]:

```
str.isalnum()
```

Out[265]:

True

In [266]:

```
str = "this is string example....wow!!!";
```


In [267]:

```
str.isalnum()
```

Out[267]:

False

In [268]:

```
str = "this";
```

In [269]:

```
str.isalpha()
```

Out[269]:

True

In [270]:

```
str = "this is string example....wow!!!";
```

In [272]:

```
str.isalpha()
```

Out[272]:

False

In [273]:

```
str = "123456";
```

In [274]:

```
str.isdigit()
```

Out[274]:

True

In [275]:

```
str = "this is string example....wow!!!";
```

In [276]:

```
str.isdigit()
```

Out[276]:

False

In [277]:

```
str.islower()
```

Out[277]:

True

In [278]:

```
str = "THIS is string example....wow!!!";
```

In [279]:

```
str.islower()
```

Out[279]:

False

In [280]:

```
str = u"this2009";
```

In [281]:

```
str = u"23443434";
```

In [282]:

```
str.isnumeric()
```

Out[282]:

True

In [283]:

```
str = u"this2009";
```

In [284]:

```
str.isnumeric()
```

Out[284]:

False

In [285]:

```
str = "    ";
```

In [286]:

```
str.isspace()
```

Out[286]:

True

In [287]:

```
str = "This is string example....wow!!!";
```

In [288]:

```
str.isspace()
```

Out[288]:

False

In [289]:

```
str = "This Is String Example...Wow!!!";
```

In [290]:

```
str.istitle()
```

Out[290]:

True

In [291]:

```
str = "This is string example....wow!!!";
```

In [292]:

```
str.istitle()
```

Out[292]:

False

In [293]:

```
str = "THIS IS STRING EXAMPLE....WOW!!!";
```

In [294]:

```
str.isupper()
```

Out[294]:

True

In [295]:

```
str = "THIS is string example....wow!!!";
```

In [296]:

```
str.isupper()
```

Out[296]:

False

In [297]:

```
s = "-";
```

In [298]:

```
seq = ("a", "b", "c");
```

In [299]:

```
s.join( seq )
```

Out[299]:

'a-b-c'

In [300]:

```
str = "this is string example....wow!!!";
```

In [301]:

```
len(str)
```

Out[301]:

32

In [302]:

```
str.ljust(50, '0')
```

Out[302]:

'this is string example....wow!!!000000000000000000'

In [303]:

```
str = "THIS IS STRING EXAMPLE....WOW!!!";
```

In [304]:

```
str.lower()
```

Out[304]:

```
'this is string example....wow!!!'
```

In [305]:

```
str = "      this is string example....wow!!!      ";
```

In [306]:

```
str.lstrip()
```

Out[306]:

```
'this is string example....wow!!!      '
```

In [307]:

```
str = "88888888this is string example....wow!!!8888888";
```

In [308]:

```
str.lstrip()
```

Out[308]:

```
'88888888this is string example....wow!!!8888888'
```

In [309]:

```
str.lstrip('8')
```

Out[309]:

```
'this is string example....wow!!!8888888'
```

In [317]:

```
str = "this is really a string example....wow!!!";
```

In [318]:

```
max(str)
```

Out[318]:

```
'y'
```

In [320]:

```
str = "this is a string example....wow!!!";
```

In [321]:

```
max(str)
```

Out[321]:

```
'x'
```

In [322]:

```
min(str)
```

Out[322]:

```
','
```

In [323]:

```
min(str)
```

Out[323]:

```
','
```

In [324]:

```
str = "this-is-a-string-example....wow!!!";
```

In [325]:

```
min(str)
```

Out[325]:

```
'!'
```

In [326]:

```
str = "this is string example....wow!!! this is really string"
```

In [327]:

```
str.replace("is", "was")
```

Out[327]:

```
'thwas was string example....wow!!! thwas was really string'
```

In [328]:

```
str.replace("is", "was", 3)
```

Out[328]:

```
'thwas was string example....wow!!! thwas is really string'
```

In [329]:

```
str1 = "this is really a string example....wow!!!";
```

In [330]:

```
str2 = "is";
```

In [331]:

```
str1.rfind(str2)
```

Out[331]:

5

In [332]:

```
str1.rfind(str2, 0, 10)
```

Out[332]:

5

In [333]:

```
str1.rfind(str2, 10, 0)
```

Out[333]:

-1

In [334]:

```
str1.find(str2)
```

Out[334]:

2

In [335]:

```
str1.find(str2, 0, 10)
```

Out[335]:

2

In [336]:

```
str1.find(str2, 10, 0)
```

Out[336]:

-1

In [337]:

```
str1 = "this is string example....wow!!!";
```

In [338]:

```
str2 = "is";
```

In [339]:

```
str1.rindex(str2)
```

Out[339]:

5

In [340]:

```
str1.index(str2)
```

Out[340]:

2

In [341]:

```
str = "this is string example....wow!!!";
```

In [342]:

```
str.rjust(50, '0')
```

Out[342]:

```
'00000000000000000000this is string example....wow!!!'
```

In [343]:

```
str = "    this is string example....wow!!!    ";
```

In [344]:

```
str.rstrip()
```

Out[344]:

```
'    this is string example....wow!!!'
```

In [345]:

```
str = "88888888this is string example....wow!!!8888888";
```


In [346]:

```
str.rstrip('8')
```

Out[346]:

```
'88888888this is string example....wow!!!'
```

In [347]:

```
str = "Line1-abcdef \nLine2-abc \nLine4-abcd";
```

In [348]:

```
str.split( )
```

Out[348]:

```
['Line1-abcdef', 'Line2-abc', 'Line4-abcd']
```

In [349]:

```
str.split(' ', 1 )
```

Out[349]:

```
['Line1-abcdef', '\nLine2-abc \nLine4-abcd']
```

In [350]:

```
str = "Line1-a b c d e f\nLine2- a b c\n\nLine4- a b c d";
```

In [351]:

```
str.splitlines( )
```

Out[351]:

```
['Line1-a b c d e f', 'Line2- a b c', '', 'Line4- a b c d']
```

In [352]:

```
str.splitlines( 0 )
```

Out[352]:

```
['Line1-a b c d e f', 'Line2- a b c', '', 'Line4- a b c d']
```

In [353]:

```
str.splitlines( 3 )
```

Out[353]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [354]:

```
str.splitlines( 4 )
```

Out[354]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [355]:

```
str.splitlines( 5 )
```

Out[355]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [357]:

```
str = "Line1-a b c d e f\nLine2- a b c\n\nLine4- a b c d";
```

In [359]:

```
str.splitlines(True)
```

Out[359]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [360]:

```
str.splitlines( 0 )
```

Out[360]:

```
['Line1-a b c d e f', 'Line2- a b c', '', 'Line4- a b c d']
```

In [361]:

```
str.splitlines( 3 )
```

Out[361]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [362]:

```
str.splitlines( 4 )
```

Out[362]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [366]:

```
str.splitlines( 5 )
```

Out[366]:

```
['Line1-a b c d e f\n', 'Line2- a b c\n', '\n', 'Line4- a b c d']
```

In [367]:

```
str = "this is string example....wow!!!";
```

In [368]:

```
str.startswith( 'this' )
```

Out[368]:

True

In [369]:

```
str.startswith( 'is', 2, 4 )
```

Out[369]:

True

In [370]:

```
str.startswith( 'this', 2, 4 )
```

Out[370]:

False

In [371]:

```
str = "0000000this is string example....wow!!!0000000";
```

In [373]:

```
str.strip( '0' )
```

Out[373]:

'this is string example....wow!!!'

In [374]:

```
str = "this is string example....wow!!!";
```

In [375]:

```
str.swapcase()
```

Out[375]:

'THIS IS STRING EXAMPLE....WOW!!!'

In [376]:

```
str = "THIS IS STRING EXAMPLE....WOW!!!";
```

In [377]:

```
str.swapcase()
```

Out[377]:

```
'this is string example....wow!!!'
```

In [379]:

```
str = "this is string exampl....wow!!!";
```

In [380]:

```
str.title()
```

Out[380]:

```
'This Is String Exampl....Wow!!!'
```

In [381]:

```
str = "this is string example....wow!!!";
```

In [382]:

```
str.upper()
```

Out[382]:

```
'THIS IS STRING EXAMPLE....WOW!!!'
```

In [383]:

```
str = "this is string example....wow!!!";
```

In [384]:

```
str.zfill(40)
```

Out[384]:

```
'00000000this is string example....wow!!!'
```

In [385]:

```
str.zfill(50)
```

Out[385]:

```
'00000000000000000000this is string example....wow!!!'
```

In [386]:

```
str = u"this2009";
```

In [387]:

```
str.isdecimal();
```

In [388]:

```
str = u"23443434";
```

In [390]:

```
str.isdecimal();
```

In [391]:

```
print(str)
```

23443434

In [392]:

```
str = u"this2009";
```

In [393]:

```
str.isdecimal();
```

In [394]:

```
print(str)
```

this2009

In []: