

# Review python basic

```
String operations

In [5]: "my name is"

Out[5]: 'my name is'

In [6]: '1 2 3 '

Out[6]: '1 2 3 '

In [7]: '@#_#]&*$%'

Out[7]: '@#_#]&*$%'

In [8]: print("good morning!")

good morning!

In [8]: name= "Ahmed khaled"
        name

Out[8]: 'Ahmed khaled'

In [9]: print(name[0])

A

In [10]: print(name[6])

k

In [11]: print(name[-1])

d

In [13]: name[0:4]

Out[13]: 'Ahme'

In [14]: name[8:12]

Out[14]: 'aled'

In [15]: name[:2]

Out[15]: 'Amdkae'

In [16]: name[0:5:2]

Out[16]: 'Amd'

In [17]: S =name + "is the best"
        S

Out[17]: 'Ahmed khaledis the best'

In [18]: 3*"Hello"

Out[18]: 'HelloHelloHello'

In [19]: name="Lamia Ahmed "
        name=name + "is the best"
        name

Out[19]: 'Lamia Ahmed is the best'

In [20]: print("Lamia Ahmed \n is the best")

Lamia Ahmed
is the best

In [21]: print("Lamia Ahmed \t is the best")

Lamia Ahmed   is the best

In [22]: print("Lamia Ahmed \\ is the best")

Lamia Ahmed \ is the best

In [23]: print(r"Lamia Ahmed \ is the best")

Lamia Ahmed \ is the best

In [24]: a= "Good morning"
        print("before upper:",a)
        b=a.upper()
        print("After upper:",b)

before upper: Good morning
After upper: GOOD MORNING

In [25]: a="He is the best"
        b=a.replace('He','she')
        b

Out[25]: 'she is the best'

In [26]: name="Good day"
        name.find('od')

Out[26]: 2
```

```

In [27]: name.find('day')
Out[27]:5
Tuples in python
In [28]: tuple1=("day",20,1.5)
         tuple1
Out[28]:('day', 20, 1.5)
In [29]: type(tuple1)
Out[29]:tuple
In [30]: print(tuple1[0])
         print(tuple1[1])
         print(tuple1[2])
day
20
1.5
In [31]: print(type(tuple1[0]))
         print(type(tuple1[1]))
         print(type(tuple1[2]))
<class 'str'>
<class 'int'>
<class 'float'>
In [32]: tuple1[-1]
Out[32]:1.5
In [33]: tuple1[-2]
Out[33]:20
In [34]: tuple1[-3]
Out[34]:'day'
In [35]: tuple2=tuple1 +("time",10)
         tuple2
Out[35]:('day', 20, 1.5, 'time', 10)
In [36]: tuple2[0:3]
Out[36]:('day', 20, 1.5)
In [37]: tuple2[3:5]
Out[37]:('time', 10)
In [38]: len(tuple2)
Out[38]:5
In [39]: Ratings=(0,14,6,3,10,8,9,4,2)
In [40]: RatingsSorted=sorted(Ratings)
         RatingsSorted
Out[40]:[0, 2, 3, 4, 6, 8, 9, 10, 14]
In [41]: NestedT=(1,2,("p","happy"),(3,3),("day",(5,2)))
In [42]: print("Element 0 of Tuple:",NestedT[0])
         print("Element 1 of Tuple:",NestedT[1])
         print("Element 2 of Tuple:",NestedT[2])
         print("Element 3 of Tuple:",NestedT[3])
         print("Element 4 of Tuple:",NestedT[4])
Element 0 of Tuple: 1
Element 1 of Tuple: 2
Element 2 of Tuple: ('p', 'happy')
Element 3 of Tuple: (3, 3)
Element 4 of Tuple: ('day', (5, 2))
In [43]: print("Element 2,0 of Tuple:",NestedT[2][0])
         print("Element 2,1 of Tuple:",NestedT[2][1])
         print("Element 3,0 of Tuple:",NestedT[3][0])
         print("Element 3,1 of Tuple:",NestedT[3][1])
         print("Element 4,0 of Tuple:",NestedT[4][0])
         print("Element 4,1 of Tuple:",NestedT[4][1])
Element 2,0 of Tuple: p
Element 2,1 of Tuple: happy
Element 3,0 of Tuple: 3
Element 3,1 of Tuple: 3
Element 4,0 of Tuple: day
Element 4,1 of Tuple: (5, 2)
In [44]: NestedT[2][1][0]
Out[44]:'h'
In [45]: NestedT[2][1][1]

```

```
Out[45]: 'a'
In [46]: NestedT[4][1][0]

Out[46]: 5
In [47]: NestedT[4][1][1]

Out[47]: 2
In []:
```

```

In [1]: N = ["Ali Kaild", 11.2, 1879]
N
Out[1]: ['Ali Kaild', 11.2, 1879]
In [2]: print ('the same element using negative and positive indexing: \n postive:', N[0],
        '\n Negative:', N[-3])
        print ('the same element using negative and positive indexing: \n postive:', N[1],
        '\n Negative:', N[-2])
        print ('the same element using negative and positive indexing: \n postive:', N[2],
        '\n Negative:', N[-1])

the same element using negative and positive indexing:
postive: ['Ali Kaild', 11.2, 1879] [0]
Negative: Ali Kaild
the same element using negative and positive indexing:
postive: ['Ali Kaild', 11.2, 1879] [1]
Negative: 11.2
the same element using negative and positive indexing:
postive: ['Ali Kaild', 11.2, 1879] [2]
Negative: 1879
In [3]: ["Ali Kalid", 11.2,1879,[3,4],("B",3)]
Out[3]: ['Ali Kalid', 11.2, 1879, [3, 4], ('B', 3)]
In [4]: N =["Ali Kalid",11.2,1879,"AK",3]
N
Out[4]: ['Ali Kalid', 11.2, 1879, 'AK', 3]
In [5]: N[3:5]
Out[5]: ['AK', 3]
In [6]: N = ["Ali Kalid", 11.3]
        N.extend(['pop',11])
        N
Out[6]: ['Ali Kalid', 11.3, 'pop', 11]
In [7]: N =["Ali Kalid",11.3]
        N.append(['pop',11])
        N
Out[7]: ['Ali Kalid', 11.3, ['pop', 11]]
In [8]: N = ["Ali Kalid", 11.3]
        N.extend(['pop',11])
        N
Out[8]: ['Ali Kalid', 11.3, 'pop', 11]
In [9]: N.append(['a,b'])
        N
Out[9]: ['Ali Kalid', 11.3, 'pop', 11, ['a,b']]
In [10]: A=["diisco", 11,2.1]
        print ('Before change:',A)
        A[0]= 'hard rock'
        print ('After change:',A)

Before change: ['diisco', 11, 2.1]
After change: ['hard rock', 11, 2.1]
In [11]: print ('Before change:',A)
        del (A[0])
        print('After change :',A)

Before change: ['hard rock', 11, 2.1]
After change : [11, 2.1]
In [12]: 'hard rock'.split()
Out[12]: ['hard', 'rock']
In [13]: 'E,Z,R,H'.split(',')
Out[13]: ['E', 'Z', 'R', 'H']
In [14]: E=["hard rock",11,2.1]
        Z=E
        print('E:',E)
        print('Z:',Z)

E: ['hard rock', 11, 2.1]
Z: ['hard rock', 11, 2.1]
In [15]: print('Z[0]:',Z[0])
        E[0]= "Apple"
        print ('Z[0]:',Z[0])

Z[0]: hard rock
Z[0]: Apple
In [16]: Z=E[:]
        Z

```

```

Out[16]:['Apple', 11, 2.1]
In [17]: print('Z[0]:',Z[0])
         E[0]= "hard rock"
         print ('Z[0]:',Z[0])

Z[0]: Apple
Z[0]: Apple
In [18]: Dict = {"key1":1,"key2":2,"key3":[3,3,3],"key4":(4,4,4),('key5'):5,(0,1):6}
         Dict

Out[18]:{'key1': 1,
         'key2': 2,
         'key3': [3, 3, 3],
         'key4': (4, 4, 4),
         'key5': 5,
         (0, 1): 6}

In [19]: Dict["key1"]

Out[19]:1
In [20]: Dict[(0, 1)]

Out[20]:6
In [21]: release_year_dict={"Thriller": "1999", "Back in Black": "1970",\
                             "The Dark Side of the Moon": "1977","The Bodyguard": "1993",\
                             "Bat Out of Hell": "1978", "Their Greatest Hits(1972-1976)": "1997",\
                             "Monday Night Fever": "1976","Rumours": "1976"}
         release_year_dict

Out[21]:{'Thriller': '1999',
         'Back in Black': '1970',
         'The Dark Side of the Moon': '1977',
         'The Bodyguard': '1993',
         'Bat Out of Hell': '1978',
         'Their Greatest Hits(1972-1976)': '1997',
         'Monday Night Fever': '1976',
         'Rumours': '1976'}

In [22]: release_year_dict['Thriller']

Out[22]:'1999'
In [23]: release_year_dict['The Bodyguard']

Out[23]:'1993'
In [24]: release_year_dict.keys()

Out[24]:dict_keys(['Thriller', 'Back in Black', 'The Dark Side of the Moon', 'The Bodyguard', 'Bat Out of Hell', 'Their Greatest Hits(1972-1976)', 'Monday Night F
ever', 'Rumours'])
In [25]: release_year_dict.values()

Out[25]:dict_values(['1999', '1970', '1977', '1993', '1978', '1997', '1976', '1976'])
In [26]: release_year_dict['Graduation'] = '2010'
         release_year_dict

Out[26]:{'Thriller': '1999',
         'Back in Black': '1970',
         'The Dark Side of the Moon': '1977',
         'The Bodyguard': '1993',
         'Bat Out of Hell': '1978',
         'Their Greatest Hits(1972-1976)': '1997',
         'Monday Night Fever': '1976',
         'Rumours': '1976',
         'Graduation': '2010'}

In [27]: del(release_year_dict['Thriller'])
         del(release_year_dict['Graduation'])
         release_year_dict

Out[27]:{'Back in Black': '1970',
         'The Dark Side of the Moon': '1977',
         'The Bodyguard': '1993',
         'Bat Out of Hell': '1978',
         'Their Greatest Hits(1972-1976)': '1997',
         'Monday Night Fever': '1976',
         'Rumours': '1976'}

In [28]: 'The Bodyguard' in release_year_dict

Out[28]:True
In [29]: soundtrack_dic = {"The Bodyguard": "1993", "Monday Night Fever": "1976"}
         soundtrack_dic

Out[29]:{'The Bodyguard': '1993', 'Monday Night Fever': '1976'}
In [ ]:

```