SPLIT STRING

```
s="Hi there Sam!"
s.split()
```

```
['Hi', 'there', 'Sam!']
```

use.format()to print the following string output should be:The diameter of Earth is 12742 kilometer.

```
planet = "Earth"
diameter = 12742
print("the diameter of the{}is{} kilometer.".format(planet , diameter))
```

```
the diameter of theEarthis12742 kilometer.
```

In this nest dictionary grab the word "hello"

```
d ={'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
a=lst[3][1][2];
print(a)
```

```
['hello']
```

Numpy

```
import numpy as np
```

create an array of 10 zeros?

create an array of 10 fives?

```
import numpy as np
array=np.zeros(10)
print("an array of 10 zeros;")
print(array)
```

```
an array of 10 zeros;
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

```
import numpy as np
array=np.ones(10)*5
print("an array of 10 fives:")
print(array)
```

```
an array of 10 fives:
[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]
```

create an array of all the even integers form 20 to 35

```
import numpy as np
array=np.arange(20,35,2)
print("Array of all the even integers form 20 to 35")
print(array)
```

```
Array of all the even integers form 20 to 35
[20 22 24 26 28 30 32 34]
```

Create a 3x3 matrix with values ranging form 0 to 8

```
import numpy as np
x = np.arange(0,9).reshape(3,3)
print(x)
```

```
[[0 1 2]
 [3 4 5]
 [6 7 8]]
```

pandas

Create a dateframe with 3 rows and 2 columns

```
import pandas as pd
```

```
import pandas as pd
data = [['RIYA',10], ['AIRA',15], ['DAFI',14]]
df = pd.DataFrame(data,columns=['Name', 'Age'])
df
```

	Name	Age
0	RIYA	10
1	AIRA	15
2	DAFI	14

Generate the series of dates form 1st Jan,2023 to 10th Feb,2023

```
import pandas as pd
dRan1 = pd.date_range(start ='1-1-2023', periods = 41)
print(dRan1)
```

```
DatetimeIndex(['2023-01-01', '2023-01-02', '2023-01-03', '2023-01-04',
               '2023-01-05', '2023-01-06', '2023-01-07', '2023-01-08',
               '2023-01-09', '2023-01-10', '2023-01-11', '2023-01-12',
```

```
               '2023-01-13', '2023-01-14', '2023-01-15', '2023-01-16',
               '2023-01-17', '2023-01-18', '2023-01-19', '2023-01-20',
               '2023-01-21', '2023-01-22', '2023-01-23', '2023-01-24',
               '2023-01-25', '2023-01-26', '2023-01-27', '2023-01-28',
               '2023-01-29', '2023-01-30', '2023-01-31', '2023-02-01',
               '2023-02-02', '2023-02-03', '2023-02-04', '2023-02-05',
               '2023-02-06', '2023-02-07', '2023-02-08', '2023-02-09',
               '2023-02-10'],
              dtype='datetime64[ns]', freq='D')
```

Create 2D list to DataFrame

```
lists = [[1, 'aaa', 22], [2,'bbb',25], [3,'ccc',24]]


list= {'name':['aaa','bbb','ccc'],
      'score':[22,25,24]}
df = pd.DataFrame(list,index=['1','2','3'])
df
```

	name	score
1	aaa	22
2	bbb	25
3	ccc	24

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