

Team ID : PNT2022TMID42545

▼ Basic Python

▼ 1. Split this string

```
s = "Hi there Sam!"

split = s.split()
split

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

▼ 2. Use .format() to print the following string.

Output should be: The diameter of Earth is 12742 kilometers.

```
planet = "Earth"
diameter = 12742

print(f"The diameter of {planet} is {diameter} kilometers.")

The diameter of Earth is 12742 kilometers.
```

▼ 3. In this nest dictionary grab the word "hello"

```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}

print(d['k1'][3]['tricky'][3]['target'][3])

hello
```

▼ Numpy

```
import numpy as np
```

▼ 4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

```
array = np.zeros(10)
print(f"An array of 10 zeros : {array}")
```

```
An array of 10 zeros : [0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

```
array = np.ones(10)*5
print(f"An array of 10 fives : {array}")
```

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

▼ 5. Create an array of all the even integers from 20 to 35

```
array = np.arange(20,35,2)
print(f"An array of even integers: {array}")
```

```
An array of even integers: [20 22 24 26 28 30 32 34]
```

▼ 6. Create a 3x3 matrix with values ranging from 0 to 8

```
matrix = np.arange(0,9).reshape(3,3)
print(matrix)
```

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

▼ 7. Concatenate a and b

```
a = np.array([1, 2, 3]), b = np.array([4, 5, 6])
```

```
a = np.array([1, 2, 3])
b = np.array([4, 5, 6])
c = np.concatenate((a, b))
c
```

```
array([1, 2, 3, 4, 5, 6])
```

▼ Pandas

▼ 8. Create a dataframe with 3 rows and 2 columns

```
import pandas as pd
```

```
import pandas as pd
```

```
data = {'Name': ['revathi', 'megathi', 'sam'],  
        'Age': [21, 20, 19]}  
df = pd.DataFrame(data)  
df
```

	Name	Age
0	revathi	21
1	megathi	20
2	sam	19

▼ 9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023

```
dates = pd.date_range(start = '1-1-2023', end = '10-02-2023')
```

```
for val in dates:  
    print(val)
```

```
2023-01-01 00:00:00  
2023-01-02 00:00:00  
2023-01-03 00:00:00  
2023-01-04 00:00:00  
2023-01-05 00:00:00  
2023-01-06 00:00:00  
2023-01-07 00:00:00  
2023-01-08 00:00:00  
2023-01-09 00:00:00  
2023-01-10 00:00:00  
2023-01-11 00:00:00  
2023-01-12 00:00:00
```

```
2023-01-13 00:00:00
2023-01-14 00:00:00
2023-01-15 00:00:00
2023-01-16 00:00:00
2023-01-17 00:00:00
2023-01-18 00:00:00
2023-01-19 00:00:00
2023-01-20 00:00:00
2023-01-21 00:00:00
2023-01-22 00:00:00
2023-01-23 00:00:00
2023-01-24 00:00:00
2023-01-25 00:00:00
2023-01-26 00:00:00
2023-01-27 00:00:00
2023-01-28 00:00:00
2023-01-29 00:00:00
2023-01-30 00:00:00
2023-01-31 00:00:00
2023-02-01 00:00:00
2023-02-02 00:00:00
2023-02-03 00:00:00
2023-02-04 00:00:00
2023-02-05 00:00:00
2023-02-06 00:00:00
2023-02-07 00:00:00
2023-02-08 00:00:00
2023-02-09 00:00:00
2023-02-10 00:00:00
2023-02-11 00:00:00
2023-02-12 00:00:00
2023-02-13 00:00:00
2023-02-14 00:00:00
2023-02-15 00:00:00
2023-02-16 00:00:00
2023-02-17 00:00:00
2023-02-18 00:00:00
2023-02-19 00:00:00
2023-02-20 00:00:00
2023-02-21 00:00:00
2023-02-22 00:00:00
2023-02-23 00:00:00
2023-02-24 00:00:00
2023-02-25 00:00:00
2023-02-26 00:00:00
~~~~~
```

▼ 10. Create 2D list to DataFrame

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

```
lists = [[1, 'aaa', 35], [2, 'bbb', 45], [3, 'ccc', 55]]
```

```
df = pd.DataFrame(lists)
df
```

	0	1	2
0	1	aaa	35
1	2	bbb	45
2	3	ccc	55

[Colab paid products](#) - [Cancel contracts here](#)

