

# Basic Python

## 1. Split this string

```
In [ ]: s = "Hi there Sam!"

In [17]: s.split()

Out[17]: ['Hi', 'there', 'Sam!']
```

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

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

```
In [ ]: planet = "Earth"
        diameter = 12742

In [18]: print("The diameter of {} is {} kilometers.".format(planet,diameter))

The diameter of Earth is 12742 kilometers.
```

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

```
In [19]: d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]]]}

In [20]: d['k1'][3]['tricky'][3]['target'][3]

Out[20]: 'hello'
```

# Numpy

```
In [21]: import numpy as np
```

## 4.1 Create an array of 10 zeros?

## 4.2 Create an array of 10 fives?

```
In [22]: np.zeros(10)

Out[22]: array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])

In [23]: np.ones(10)*5

Out[23]: array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])
```

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

```
In [24]: print(np.arange(20,36,2))

[20 22 24 26 28 30 32 34]
```

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

```
In [25]: np.arange(0,9).reshape(3,3)

Out[25]: array([[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])

```
In [26]: print('\n---Results of a([1,2,3]) and b([4,5,6])')

---Results of a([1,2,3]) and b([4,5,6])
```

# Pandas

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

```
In [2]: import pandas as pd

In [2]: import pandas as pd
        record = {"name":["maran", "mani"], "marks":["50", "50"], "status":["pass", "pass"]}
        df = pd.DataFrame(record)
        df

Out[2]:
```

	name	marks	status
0	maran	50	pass
1	mani	50	pass

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

```
In [ ]:
```

## 10. Create 2D list to DataFrame

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

```
In [4]: lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]

In [6]: lists = {"s.no": [1,2,3], "name":["aaa', 'bbb', 'ccc'], "value": [22,25,24]}

In [7]: pd.DataFrame(lists)

Out[7]:
```

	s.no	name	value
0	1	aaa	22
1	2	bbb	25
2	3	ccc	24

```
In [ ]:
```