

ASSIGNMENT 1

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```
1. Split this string
[2] s = "Hi there sujil!"
[3] print(s.split())
['Hi', 'there', 'sujil!']

2. Use .format() to print the following string.
Output should be: The diameter of Earth is 12742 kilometers.
[10] planet = "Earth"
      diameter = 12742
[11] print("The diameter of {0} is {1} kilometers.".format(planet,diameter))
The diameter of Earth is 12742 kilometers.

3. In this nest dictionary grab the word "hello"
[12] d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
[14] print(d['k1'][3]['tricky'][3]['target'][3])
```

```
3. In this nest dictionary grab the word "hello"
[12] d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
[14] 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?
[15] a=np.zeros(10)
      print(a)
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]

a=np.ones(10)*5
print(a)
[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]
```

```
5. Create an array of all the even integers from 20 to 35
[17] a=np.arange(20,35,2)
      print(a)
[20 22 24 26 28 30 32 34]

Double-click (or enter) to edit

6. Create a 3x3 matrix with values ranging from 0 to 8
[18] m=np.arange(9).reshape(3,3)
      print(m)
[[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])
[19] a = np.array([1, 2, 3])
      b = np.array([4, 5, 6])
      print(np.concatenate((a,b),axis=0))
[1 2 3 4 5 6]
```

8. Create a dataframe with 3 rows and 2 columns

```
[8] import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
```

```
data=[["Arunshanmugam","Mentor"],["sujitha","leader"],["lakshmi devi","Member"]]
print(pd.DataFrame(data,columns=["Name","Role"]))
```

	Name	Role
0	Arunshanmugam	Mentor
1	sujitha	leader
2	lakshmi devi	Member

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

```
[6] from datetime import datetime

date=pd.date_range(start="2023-01-01",end="2023-02-10")
print(pd.Series(date))
```

0	2023-01-01
1	2023-01-02
2	2023-01-03
3	2023-01-04
4	2023-01-05
5	2023-01-06
6	2023-01-07
7	2023-01-08
8	2023-01-09

0s completed at 13:54

```
+ Code + Text
```

```
[6] 22 2023-01-23
23 2023-01-24
24 2023-01-25
25 2023-01-26
26 2023-01-27
27 2023-01-28
28 2023-01-29
29 2023-01-30
30 2023-01-31
31 2023-02-01
32 2023-02-02
33 2023-02-03
34 2023-02-04
35 2023-02-05
36 2023-02-06
37 2023-02-07
38 2023-02-08
39 2023-02-09
40 2023-02-10
dtype: datetime64[ns]
```

10. Create 2D list to DataFrame

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

```
lists = [[1, 'xxx', 22], [2, 'yyy', 25], [3, 'zzz', 24]]
pd.DataFrame(lists,columns=["S.No.", "Name", "Quantity"])
```

	S.No.	Name	Quantity
0	1	xxx	22
1	2	yyy	25
2	3	zzz	24

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