

ASSIGNMENT 1

Python Programming

Assignment Date	29 September 2022
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Maximum Marks	2 Marks

QUESTIONS:

1.Split this string

#1. Split this string

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

```
[2]: print(s.split())
```

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

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

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```
In [3]: planet = "Earth"  
        diameter = 12742
```

```
In [4]: "The diameter of {} is {} kilometer".format(planet,diameter)
```

```
Out[4]: 'The diameter of Earth is 12742 kilometer'
```

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

```
In [6]: d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]]}

In [13]: d['k1'][3]['tricky'][3]['target'][3]

Out[13]: 'hello'
```

4.Numpy

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

```
In [15]: arr=np.zeros(10)
print(arr)

[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

```
In [16]: arr=np.ones(10)*5
print(arr)

[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]
```

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

```
In [20]: arr=np.arange(20,36,2)
arr=np.array(arr)
print(arr)

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

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

```
In [6]: arr=np.arange(0,9).reshape(3,3)
arr
```

```
Out[6]: 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 [7]: a=np.array([1,2,3])
b=np.array([4,5,6])
c=a+b
|
```

```
Out[7]: array([5, 7, 9])
```

Pandas

8. Create a dataframe with 3 rows and 2 columns

```
In [16]: import pandas as pd
```

```
In [17]: data={'name':['rasi','nivi','sowmi'],'age':[20,22,21]}  
df=pd.DataFrame(data)  
df
```

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

```
In [18]: dates=pd.date_range('01-01-2023',periods=41,freq='D')  
df=pd.DataFrame(dates)  
df
```

Out[18]:

	0
0	2023-01-01
1	2023-01-02
2	2023-01-03
3	2023-01-04
4	2023-01-05
5	2023-01-06

13 2023-01-14

14 2023-01-15

15 2023-01-16

16 2023-01-17

17 2023-01-18

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

10. Create 2D list to DataFrame

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

```
In [20]: lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
```

```
In [21]: df=pd.DataFrame(lists ,columns=['s,no','members','age'])  
df
```

Out[21]:

	s,no	members	age
0	1	aaa	22
1	2	bbb	25
2	3	ccc	24
