

ASSIGNMENT - 1

Assignment Date	14 September 2022
Student Name	Priyadharsini B
Student Roll Number	2019504565
Maximum Marks	2 Marks

1) Split this string:

Solution:

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

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

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

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

Solution:

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

Output: `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'] } ] } ] }  
}}
```

Solution: `d['k1'][3]['tricky'][3]['target'][3]`

4) Create an array of 10 zeros? and Create an array of 10 fives?

Solution:

```
np.zeros(10)  
array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])  
  
5*np.ones(10)  
array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])
```

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

Solution: `np.arange(20, 35, 2)`

Output: `array([20, 22, 24, 26, 28, 30, 32, 34])`

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

Solution: `np.arange(0, 9).reshape(3, 3)`

Output: `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])`

Solution: `a=np.array([1, 2, 3])
b=np.array([4, 5, 6])
np.concatenate((a,b),axis=0)
#print(c)`

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

8) Create a dataframe with 3 rows and 2 columns

Solution: `data={
 "Numbers": [1, 2, 3],
 "Letters": ['a', 'b', 'c']
}
pd.DataFrame(data)`

Output :

	Numbers	Letters
0	1	a
1	2	b
2	3	c

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

Solution : `pd.date_range(start='1/1/2023', end='10/2/2023')`

Output :

```
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',
               ...,
               '2023-09-23', '2023-09-24', '2023-09-25', '2023-09-26',
               '2023-09-27', '2023-09-28', '2023-09-29', '2023-09-30',
               '2023-10-01', '2023-10-02'],
              dtype='datetime64[ns]', length=275, freq='D')
```

10) Create 2D list to DataFrame

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

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

`pd.DataFrame(lists)`

	0	1	2
0	1	aaa	22
1	2	bbb	25
2	3	ccc	24