

# ASSIGNMENT – 1

Student Name	SRINATH S
Student Roll Number	73771921195
Maximum Marks	2 Marks

## Basic Python

### 1. Split this string

```
s = "Hi there Sam!"  
  
x=s.split(" ") print(x)  
['Hi', 'there', 'Sam!']
```

In [ ]:

In [ ]:

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

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

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

In [ ]:

In [ ]:

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

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

In [ ]:

```
lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7] a=lst[3][1][2]; print(a)  
['hello']
```

In [ ]:

## Numpy

```
import numpy as np
```

In [ ]:

## 4.1 Create an array of 10 zeros?

## 4.2 Create an array of 10 fives?

```
array=np.zeros(10) print("An array of 10 zeros:") print(array)
An array of 10 zeros:
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

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

```
import numpy as np array=np.arange(20,36,2) print("Array of all the even
integers from 20 to 35") print(array)
Array of all the even integers from 20 to 35
[20 22 24 26 28 30 32 34]
```

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

```
x = np.arange(0, 9).reshape(3,3) print(x)
[[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]]) np.concatenate((a,b),axis=0)
array([[1, 2, 3],
       [4, 5, 6]])
```

# Pandas

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

```
In [1]:
import pandas as pd

In [2]:
import pandas as pd
df = pd.DataFrame()
df['name'] = ['sneha','safana','priya']
df['reg'] = [7,13,23]
print(df)
```

	name	reg
0	sneha	7
1	safana	13
2	priya	23

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

```
In [3]:
import pandas as pd
sd = pd.date_range(start = '1-1-2023', end = '10-02-2023', freq='24H')
print(sd)
```

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='24H')

## 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 [7]:
import pandas as pd
df = pd.DataFrame(lists, columns = ['s.no', 'name', 'mark'])
print(df)
```

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