ASSIGNMENT - 01

1.Split this String

PROGRAM

S="Hi there sam!"

S=S.split()

Print(s);

SAMPLE OUTPUT:

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

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

The diameter of Earth is 12742 kilometers.

PROGRAM

planet = "Earth"
diameter = 12742

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

SAMPLE OUTPUT:

The diameter of Earth is 12742 kilometers.

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

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

PROGRAM

d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
print(d['k1'][3]["tricky"][3]['target'][3])

SAMPLE OUTPUT:

Hello

4.1 Create an array of 10 zeros

4.2 Create an array of 10 fives

PROGRAM

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

SAMPLE OUTPUT:

An array of 10 zeros:

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

An array of 5 zeros:

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

5. Create an array of all the even integers from 30 to 35.

PROGRAM

```
import numpy as np

array=np.arange(30,36,2)

print("Array of all the even integers from 30 to 35")

print(array)
```

SAMPLE OUTPUT:

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? ;

PROGRAM

import numpy as np

x = np.arange(2, 11).reshape(3,3)

print(x)

SAMPLE OUTPUT:

[[2 3 4]

 [5 6 7]

 [8 9 10]]

7. Concatenate a and b :

PROGRAM

import numpy as np

a = np.array([1, 2, 3])

print(a)

b = np.array([4, 5, 6])

print(b)

print('\n---Result of a and b---')

print(np.concatenate((a, b)))

SAMPLE OUTPUT:

[1 2 3]

[4 5 6]

---Result of a and b---

[1 2 3 4 5 6]

8.Create the dataframe with 3 rows and 2 columns :

PROGRAM

```
import pandas as pd
record = {
    "Name": ["Tom", "Jack", "Lucy"],

    "Marks": [9, 19, 20,]}
df = pd.DataFrame(record)
Df
```

SAMPLE OUTPUT:

	NAME	MARKS
0	Tom	9
1	Jack	19
2	Lucky	20

9.Generate the series of date from 1st jan,2023 to 10th feb 2023?:

PROGRAM

Import datetime Import pandas as pd

Test-date = datetime.datetime.striptime("01-01-2023", "10- 02-2023

Date- generated = pd.date-range(test-date, periods=k)

Print(date-generated.strftime("%d-%m-5y))

SAMPLE OUTPUT:

01-01-2023

02-01-2023

03-01-2023

04-01-2023

05-01-2023

06-01-2023

07-01-2023

08-01-2023

09-01-2023

10-01-2023

12-01-2023

13-01-2023

14-01-2023

15-01-2023

16-01-2023

17-01-2023

18-01-2023

19-01-2023

20-01-2023

21-01-2023

22-01-2023

23-01-2023

24-01-2023

25-01-2023

26-01-2023

27-01-2023

28-01-2023

29-01-2023

30-01-2023

31-01-2023

01-02-2023

02-02-2023

03-02-2023

04-02-2023

05-02-2023

06-02-2023

07-02-2023

08-02-2023

09-02-2023

10-02-2023

10.Create 2D list to dataframe:

PROGRAM

import pandas as pd

lst = [['Python', 25], ['Is', 30],['Programming', 26], ['Language', 22]]

df = pd.DataFrame(lst, columns =['Tag', 'Number'])

SAMPLE OUTPUT:

Tag	Number
Python	25
Is	30
Programming	26
Language	22