ASSIGNMENT - 1
PYTHON PROGRAMMING

Assignment Date	19 September 2022
Student Name	Ms. Priyadharshini P
Student Roll Number	111519205035
Maximum Marks	2 Marks

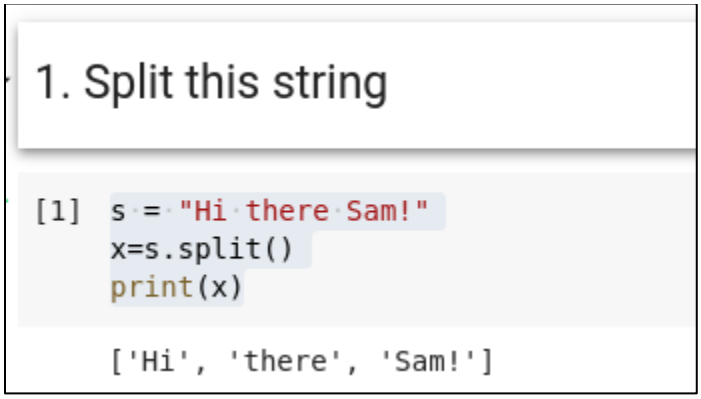
QUESTION-1:

Split this string

Solution:

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

OUTPUT:



QUESTION-2:

Use .format() to print the following string.

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

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

OUTPUT:

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

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

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

```
The diameter of Earth is 12742 kilometers.
```

QUESTION - 3:

In this nest dictionary grab the word "hello"

SOLUTION:

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

OUTPUT:

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

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

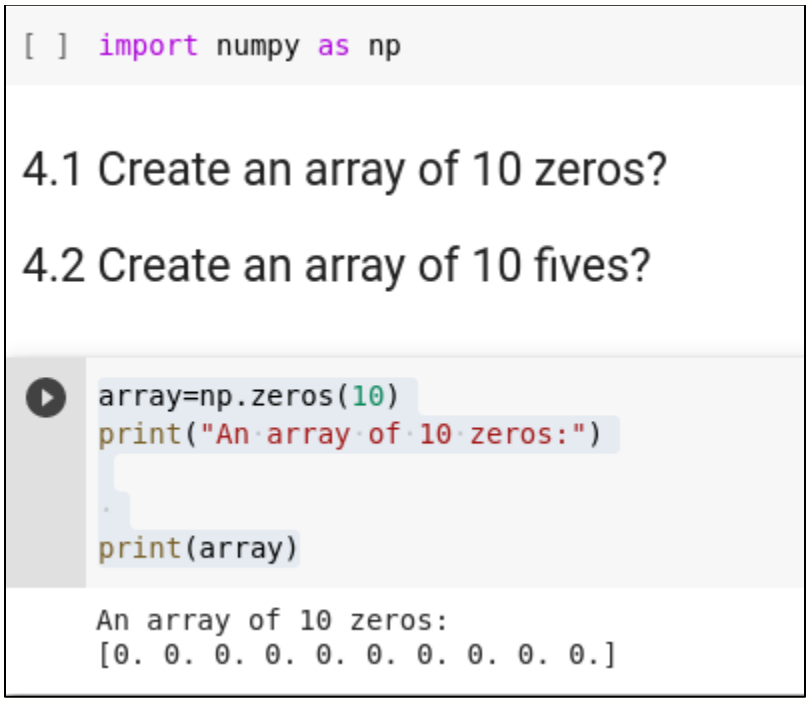
```
hello
```

QUESTION-4:

4.1:Create an array of 10 zeros?

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

OUTPUT:



4.2 **Create an array of 10 fives?**

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

OUTPUT:

```
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.]
```

QUESTION - 5:

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

```
array = np.arange(20,35,2)
print(array)
```

OUTPUT:

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

```
array = np.arange(20,35,2)
print(array)
```

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

QUESTION - 6:

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

SOLUTION:

```
x=np.arange(0.9).reshape(3,3)
print(x)
```

OUTPUT:

```
[ ] x =  np.arange(0,9).reshape(3,3)
    print(x)

    [[0 1 2]
     [3 4 5]
     [6 7 8]]
```

QUESTION - 7

Concatenate a and b

a = np.array([1, 2, 3]), b = np.array([4, 5, 6])

Solution:

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

OUTPUT:

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

     [1 2 3 4 5 6]
```

QUESTION - 8:

Create a dataframe with 3 rows and 2 columns

```
import pandas as pd
lists=[[‘aaa’,22],[‘bbb’,25][‘ccc’,24]]
df=pd.DataFrame(lists,columns=[‘Name’,’Age’],dtype=str)
print(df)
```

OUTPUT:

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

[ ] import pandas as pd
    lists = [['aaa', 22], ['bbb', 25], ['ccc', 24]]
    df = pd.DataFrame(lists, columns =['Name', 'Age'],
                                              dtype = str)
    print(df)

      Name Age
    0  aaa  22
    1  bbb  25
    2  ccc  24
```

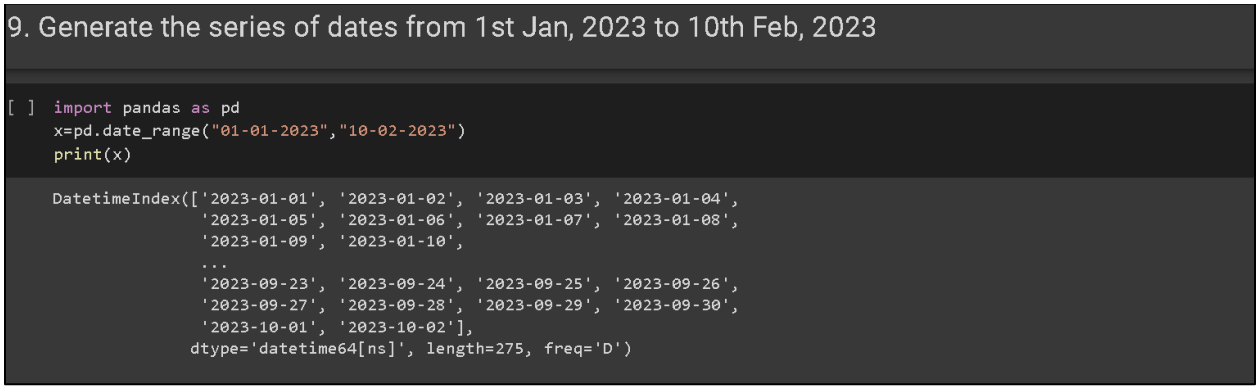
QUESTION 9:

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

SOLUTION:

```
import pandas as pd
x=pd.date_range(“01-01-2023”,”10-01-2023”)
print(x)
```

OUTPUT:



QUESTION 10:

Create 2D list to DataFrame

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

SOLUTION:

```
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
df=pd.DataFrame(lists,columns=[‘SNo’,‘Name’, ‘Age’], dtype=str)
print(df)
```

OUTPUT:

10. Create 2D list to DataFrame

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

```
[ ]  lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
     df = pd.DataFrame(lists, columns =['SNo', 'Name', 'Age'],
                                              dtype = str)
     print(df)
```

```
       SNo Name Age
     0   1  aaa  22
     1   2  bbb  25
     2   3  ccc  24
```