1. Split this string

In [1]:

```
s = "Hi there aarthi!"
```

In [2]:

```
s='Hi there aarthi!'

s.split()
```

Out[2]:

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

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

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

In [3]:

```
planet = "Earth"

diameter = 12742
```

In [4]:

```
print('The diameter of {} is {} kilometers.'.format(planet,diameter))
```

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

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

In [5]:

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

In [6]:

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

Out[6]:

```
'hello'
```

Numpy

In [25]:

```
import numpy as np

array=np.arange(30,71,2)

print("Array of all the even integers from 30 to 70")

print(array)
```

Array of all the even integers from 30 to 70

```
[30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70]
```

4.1 Create an array of 10 zeros?

4.2 create an array of 10 fives?

In [12]:

```
np.zeros(10)
```

Out[12]:

```
array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])
```

In [13]:

```
np.ones(10) * 5
```

Out[13]:

```
array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])
```

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

In [14]:

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

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

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

In [15]:

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

Out[15]:

```
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 [16]:

```
print('\n---results of a([1,2,3]) and b([4,5,6])---')
```

```
---results of a([1,2,3]) and b([4,5,6])---
```

Pandas

8. Create a dataframe with 3 rows and 2 columns

In [17]:

```
import pandas as pd
```

In [20]:

```
import pandas as pd
record = {"name":["Laila","Halan"],"marks":["28","25"],"status":["pass","pass"]}
df = pd.DataFrame(record)
df
```

Out[20]:

```
     name    marks   status

  0  Latha   28      pass

  1  aarthi  25      pass
```

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

In [1]:

```
d= (1."Jan", 2023, 10,"Feb", 2023)
```

```
 Input In [1]
   d= (1."Jan", 2023, 10,"Feb", 2023)
       ^
Syntax Error: invalid syntax
```

10. Create 2D list to Data Frame

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

In [21]:

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

In [22]:

```
lists = {"s.no": [1, 2, 3], "name": ['aaa','bbb','ccc'], "value": [22, 25, 24]}
```

In [23]:

```
pd.DataFrame (lists)
```

Output [23]:

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

In [26]:

```
pd.DataFrame(lists,index=["A","B","c"])
```

Out[26]:

	s.no	**name**	**value**
A	1	aaa	22
B	2	bbb	25
c	3	ccc	24

In [ ]: