Assignment -1

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Basic Python1.Split this string

In [2]:
```
s = "Hi there Sam!"
```

In [3]:
```
s.split()
```

Out[3]:
```
['Hi', 'there', 'Sam!']
```

2.Use.format() to print the following string.Output should be: The diameter of Earth is 12742 kilometers.

In [4]:
```
planet = "Earth"
diameter = 12742
```

In [5]:
```
print(f"The diameter of {planet} is {diameter} kilometers")
```

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

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

In [6]:
```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hell
o']}]}]}
```

In [7]:
```
list(d.values())[0][3]['tricky'][3]['target'][3]
```

Out[7]:
```
'hello'
```

Numpy

In [ ]:
```
import numpy as np
```

4.1 Create an array of 10 zeros?4.2 Create an array of 10 fives?

In [10]:
```
np.zeros(10)
```

Out[10]:
```
array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])
```

In [11]:
```
np.ones(10)*5
```

Out[11]:
```
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 [13]:
```
np.arange(20,35,2)
```

Out[13]:
```
array([20, 22, 24, 26, 28, 30, 32, 34])
```

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

In [14]:
```
np.arange(0,9).reshape(3,3)
```

Out[14]:
```
array([[0, 1, 2],
       [3, 4, 5],
       [6, 7, 8]])
```

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

In [15]:
```
a = np.array([1,2,3])
b = np.array([4,5,6])
np.concatenate((a,b),axis=None)
```

Out[15]:
```
array([1, 2, 3, 4, 5, 6])
```

Pandas8. Create a dataframe with 3 rows and 2 columns

In [16]:
```
import pandas as pd
```

In [18]:
```
data = [['Saravanakumar',22],['satheesh',22],['Tamilarasan',22]]
df = pd.DataFrame(data,columns=['Name','Age'])
df
```

Out[18]:

	Name	Age
0	Saravanakumar	22
1	satheesh	22
2	Tamilarasan	22

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

In [19]:
```
dates = pd.date_range('01/01/2023','10/02/2023')
pd.DataFrame(dates)
```

Out[19]:

	0
0	2023-01-01
1	2023-01-02
2	2023-01-03
3	2023-01-04
4	2023-01-05
...	...
270	2023-09-28
271	2023-09-29
272	2023-09-30
273	2023-10-01
274	2023-10-02

275 rows × 1 columns

10.Create 2D list to DataFrame

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

In [20]:
```
lists = [[1,'aaa',22],[2,'bbb',25],[3,'ccc',24]]
```

In [21]:
```
df = pd.DataFrame(lists)
df
```

Out[21]:

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

In [ ]:

In [ ]: