1. Split this string

Basic Python

In [ ]:

```
s = "Hi there am  akshidha!"
```

In [ ]:

```
s.split()
```

Out[ ]:

```
['Hi', 'there', 'am', 'akshidha!']
```

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

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

In [ ]:

```
planet = "Earth"
diameter = 12742
```

In [ ]:

```
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 [ ]:

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

Out[ ]:

```
'hello'
```

In [ ]:

```

```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-22-c5fa21723ab8> in <module>
----> 1 d['k1'][3]['tricky'][3]['target'][3]

KeyError: 'k1'
```

Numpy

In [ ]:

```
import numpy as np
```

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

In [ ]:

```
a = np.zeros(10)
a
```

Out[ ]:

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

In [ ]:

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

Out[ ]:

```
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 [ ]:

```
S = np.arange(20,35,2)
S
```

Out[ ]:

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

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

In [ ]:

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

Out[ ]:

```
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 [ ]:

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

Out[ ]:

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

In [ ]:

```
from google.colab import drive
drive.mount('/content/drive')
```

Pandas

8. Create a dataframe with 3 rows and 2 columns

In [ ]:

```
```

In [ ]:

```
import pandas as pd
d = {"names":["akshidha","alin","harini"],"age":[20,19,20]}
df = pd.DataFrame(d)
df
```

Out[ ]:

	names	age
0	akshidha	20
1	alin	19
2	harini	20

In [ ]:

```
```

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

In [ ]:

```
P = pd.date_range(start='1-1-2023',end='10-2-2023')
for val in P:
  print(val);
```

```
2023-01-01 00:00:00
2023-01-02 00:00:00
2023-01-03 00:00:00
2023-01-04 00:00:00
2023-01-05 00:00:00
2023-01-06 00:00:00
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2023-01-08 00:00:00
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2023-01-11 00:00:00
2023-01-12 00:00:00
2023-01-13 00:00:00
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```

In [ ]:

```
```

10. Create 2D list to DataFrame

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

In [ ]:

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

In [ ]:

```
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
df = pd.DataFrame(lists)
df
```

Out[ ]:

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