Basic Python ¶

1. Split this string

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

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

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))
```

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

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

In [*]:
```
d['k1'][3]['tricky'][3]['target'][3]
```

Numpy

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

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

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

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

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

In [ ]:
```
array=np.arange(20,35,2)
array
```

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

In [*]:
```
a=np.arange(0,9).reshape(3,3)
print(a)
```

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])
c=np.hstack((a,b))
c
```

8. Create a dataframe with 3 rows and 2 columns

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

In [ ]:
```
data=[['Guna',21],['Chella',21],['Blacky',21]]
df=pd.DataFrame(data,columns=['Name','Age'])
df
```

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

In [ ]:
```
import datetime
import pandas as pd
test_date =datetime.datetime.strptime("01-01-2023","%d-%m-%Y")
a=41
date_generated=pd.date_range(test_date,periods=a)
print(date_generated.strftime("%d-%m-%Y"))
```

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 [*]:
```
import pandas as
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
df=pd.DataFrame(lists,columns=["S.no","Name","Age"])
df
```