Basic Python

1. Split this string

```
s = "Hi there Sam!"


#s=s.split()
#Print(s)
```

italicized text## 2. Use .format() to print the following string.

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

```
planet = "Earth"
diameter = 12742


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

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

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


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

Numpy

```
import numpy as np
```

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

```
#array=np.zeros(10)
#print("An array of 10 zeros:")
#print(array)


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

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

```
#array=np.arange(20,36,2)
#print("Array of all the even integers from 20 to 35")
#print(array)
```

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

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

7. Concatinate a and b

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

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

Pandas

8. Create a dataframe with 3 rows and 2 columns

```
import pandas as pd


#d={"one":[1,2,3],"two":[4,5,6]}
#pd.DataFrame(d)
```

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

```
#pd.series(pd.date_range("2023",freq-"D", periods=41))
```

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]]


#print(type (lists))
#for x in lists:
  #for j in x:
    #print(j)
#dt=zip(lists)
#df=pd.DataFrame(dt, columns=["d"])
#print(type (df))
#print(df)
```