Basic Python

1. Split this string

"Hi there sam!" x=s.split() print(x)

```
s = "Hi there Sam!"
```

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

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

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

txr="The diameter of Earth is{diameter:} kilometers" print(txt.format(diameter=12742))

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

Numpy

```
import numpy as np
```

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

Import numpy as np np.zeros(10)

Important numpy as np np.ones(10)=5

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

important numpy as np array=np.arrange(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

important numpy as np x=np.arrange(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])

Pandas

8. Create a dataframe with 3 rows and 2 columns

```
import pandas as pd
```

important pandas as pd data=[[0,1],[2,3],[4,5]] df=pd.Dataframe(data) print(df)

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

important pandas as pd per1=pd.date_range(start='1-01-2023',end='10-02-2023') for val in peral1: print(val)

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]]
```

important pandas as pd lists=[[1,'aaa',22],[2,'bbb',25],[3,'ccc',24]] df=pd.Dataframe(lists) print(df)