**Assignment -1**

Basic Python Programming in ipynb

| Assignment Date | 12 September 2022 |
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| Maximum Marks | 2 Marks |

Basic Python

# **1.Split this string**

s = "Hi there Sam!"

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t=s.split()  
print(t)

['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

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"**

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

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print(d['k1'][3]["tricky"][3]['target'][3])

hello

**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

arr=np.zeros(10)

import numpy as np  
arr1=np.ones(5)

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

array=np.arange(20,35,2)

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

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

**7. Concatenate 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.concatenate((a,b),axis=0)

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

**Pandas**

**8. Create a dataframe with 3 rows and 2 columns**

import pandas as pd

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

import pandas as pd  
per =pd.date\_range(start='1-1-2023', end='10-02-2023',freq='5H')

**10. Create 2D list to DataFrame**

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

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import pandas as pd  
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]  
df=pd.DataFrame(lists,columns=['num1','char','num2'])