#### **Assignment -1**

### **Python Programming**

Assignment Date	08 September 2022
Student Name	Ms.S Ragavi
Student Roll Number	510119104016
Maximum Marks	2 Marks

# **Basic Python**

```
1. Split this string
s = "Hi there Sam!"
s="Hi there Sam!"
s=s.split()
print(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
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']}]}]}
d={'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}
print(d['k1'][3]["tricky"][3]['target'][3])
hello
```

## Numpy

import numpy as np

#### 4.1 Create an array of 10 zeros?

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

```
4.2 Create an array of 10 fives?
import numpy as np
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
An array of 10 zeros:
[0. 0. 0. 0. 0. 0. 0. 0. 0.]
import numpy as np
array=np.ones(10)*5
print("An array of 10 fives:")
print(array)
An array of 10 fives:
[5. 5. 5. 5. 5. 5. 5. 5. 5.]
5. Create an array of all the even integers from 20 to 35
import numpy as np
array=np.arange(20,36,2)
print("Array of all the even integers from 20 to 35")
print(array)
Array of all the even integers from 20 to 35
[20 22 24 26 28 30 32 34]
6. Create a 3x3 matrix with values ranging from 0 to 8
import numpy as np
array=np.arange(0,9).reshape(3,3)
print(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])
import numpy as np
a=np.array([1,2,3])
b=np.array([4,5,6])
np.concatenate((a,b))
```

#### **Pandas**

1 20 50 2 30 60

import pandas as pd

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

```
import pandas as pd
data={"A":[10,20,30],"B":[40,50,60]}
df=pd.DataFrame(data)
print(df)
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   Α
0 10 40
```

```
9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023
import pandas as pd
x=pd.date_range(start='1-1-2023',end='10-2-2023',freq='5H')
for val in x:
  print(val)
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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]]
lists=[[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
df=pd.DataFrame(lists,columns=['S.No','Name','Age'])
print(df)
```

S.No Name Age

aaa

22

0

1 2 bbb 25 2 3 ccc 24