Assignment-1

DOMAIN: ARTIFICIAL INTELLEGENCE

TOPIC: REAL TIME COMMUNICATION POWERED BY AI FOR SPECIALLY ABLED

```
# -*- coding: utf-8 -*-

"""Sanjayhananth


Automatically generated by Colaboratory.


Original file is located at

    https://colab.research.google.com/drive/1-3HDjYrRiC5024-xyEbmg-MOkvjD-ZwI


# Basic Python


## 1. Split this string

"""

s = "Hi there Sam!"

a=s.split()

print(a)



"""*`italicized text`*##

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 {} kilometer.' .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']}]}]}

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"""

```
import numpy as np
array=np.arange(20,35,2)
print("Array of of even integers from 20 to 35")
print(array)
```

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

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

"""## 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])
c=a+b
print(c)
```

"""# Pandas

8. Create a dataframe with 3 rows and 2 columns

"""

```
import pandas as pd

data={'name':['john','jai','rose'],'age':[20,22,45]}
df=pd.DataFrame(data)
print(df)
```

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

```
import datetime
start_date=datetime.date(2023, 1, 1)
end_date = datetime.date(2023 ,2 ,10)
```

```
delta=datetime.timedelta(days=1 )
while(start_date<=end_date):
  print(start_date,end="\n")
  start_date += delta
```

"""## 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 (lists)
```