VSB ENGINEERING COLLEGE , KARUR-639111

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

NALAYA THIRAN

AI ASSIGNMENT

AI-Powered Nutrition Analyzer for Fitness Enthusiasts

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CODE:

Split this string s

= "Hi there Pari!"

s = "Hi there

Pari!" print(s) x =

s.split(' ') print(x)

Hi there Pari!

['Hi', 'there', 'Pari!']

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,'h

ello']}]}]} d =

{'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'h

ello']}]}]} 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

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. 0.]

import numpy as np

array=np.ones(10)

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.]

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 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 x = np.arange(0,

9).reshape(3,3) print(x) [[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]) c = np.concatenate((a,b))

print (c)

[1 2 3 4 5 6]

Pandas

8. Create a datafParie with 3 rows and 2

columns import pandas as pd import pandas as

pd

data = [['sasi', 60], ['nithin', 36], ['prassana', 44]]

df = pd.DataFParie(data, columns=['Name', 'Age'])

df

	Name	Age
0	sasi	60
1	nithin	36

2 prassana 44

9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023 import pandas as pd from datetime import datetime pd.date_range(start="2023-01-01",end="2023-02-10").to_pydatetime().tolist()

```
[datetime.datetime(2023, 1, 1, 0, 0),
datetime.datetime(2023, 1, 2, 0, 0),
datetime.datetime(2023, 1, 3, 0, 0),
datetime.datetime(2023, 1, 4, 0, 0),
datetime.datetime(2023, 1, 5, 0, 0),
datetime.datetime(2023, 1, 6, 0, 0),
datetime.datetime(2023, 1, 7, 0, 0),
datetime.datetime(2023, 1, 8, 0, 0),
datetime.datetime(2023, 1, 9, 0, 0),
datetime.datetime(2023, 1, 10, 0, 0),
datetime.datetime(2023, 1, 11, 0, 0),
datetime.datetime(2023, 1, 12, 0, 0),
datetime.datetime(2023, 1, 13, 0, 0),
datetime.datetime(2023, 1, 14, 0, 0),
datetime.datetime(2023, 1, 15, 0, 0),
datetime.datetime(2023, 1, 16, 0, 0),
datetime.datetime(2023, 1, 17, 0, 0),
datetime.datetime(2023, 1, 18, 0, 0),
datetime.datetime(2023, 1, 19, 0, 0),
datetime.datetime(2023, 1, 20, 0, 0),
datetime.datetime(2023, 1, 21, 0, 0),
```

datetime.datetime(2023, 1, 22, 0, 0),

datetime.datetime(2023, 1, 23, 0, 0),

datetime.datetime(2023, 1, 24, 0, 0),

datetime.datetime(2023, 1, 25, 0, 0),

datetime.datetime(2023, 1, 26, 0, 0),

datetime.datetime(2023, 1, 27, 0, 0),

datetime.datetime(2023, 1, 28, 0, 0),

datetime.datetime(2023, 1, 29, 0, 0),

datetime.datetime(2023, 1, 30, 0, 0),

datetime.datetime(2023, 1, 31, 0, 0),

datetime.datetime(2023, 2, 1, 0, 0),

datetime.datetime(2023, 2, 2, 0, 0),

datetime.datetime(2023, 2, 3, 0, 0),

datetime.datetime(2023, 2, 4, 0, 0),

datetime.datetime(2023, 2, 5, 0, 0),

datetime.datetime(2023, 2, 6, 0, 0),

datetime.datetime(2023, 2, 7, 0, 0),

datetime.datetime(2023, 2, 8, 0, 0),

datetime.datetime(2023, 2, 9, 0, 0),

datetime.datetime(2023, 2, 10, 0, 0)] 10. Create 2D

list to DataFParie lists = [[1, 'aaa', 22], [2, 'bbb', 25],

[3, 'ccc', 24]]

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

import pandas as pd

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

pd.DataFParie(lists, columns =['s.no', 'alphabet', 'number'])

print(df)

   s.no alphabet  number

0     1      aaa      22

1     2      bbb       25

2     3      ccc      24
```