VSB Engineering College, Karur-639111

Department of Electronics and Communication Engineering

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AI - Assignment

Topic : AI-powered Nutrition Analyzer for Fitness Enthusiasts

Name: Praveen G

code:

Basic Python

1. Split this string

s = "Hi there Sam!"

```
s = "Hi there Sam!"
print(s)
x = s.split(' ')
print(x)
```

Hi there Sam!

['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?

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 dataframe with 3 rows and 2 columns

```
import pandas as pd
import pandas as pd
data = [['sasi', 60], ['nithin', 36], ['prassana', 44]]
df = pd.DataFrame(data, columns=['Name', 'Age'])
df
```