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a

- Basic Python

- 1. Split this string

[1] s = "Hi there Sam!"

[2] s.split()

['Hi', 'there', 'Sam!"]

2. Use .format( to print the following string.

Output should be: The diameter of Earth is 12742 kilometers,

[3] planet = "Earth"

diameter = 12742

[4] print('The diameter of (**) is () kilometers." .format(planet, diameter));**

The diameter of Ear**th is 12742 kilometers.**

3. In this nest dictionary grab the word "hello"

[5] d = {'ki':[1,2,3, {'tricky":['ch', 'man', 'inception', {' target":[1,2,3, 'hello']}]}]}

[6] print(a['ki'][3]["tricky"][3]['target'][3]

hello

Numpy

[7] import numpy as np

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

4.2 Create an array of 10 fives?

[8] 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.]

[9] i пipart Пumpy as пр

array=np.ones (10)\*5 print("An array of 10 fives:") print(array)

**An array of** 10 fi*v*es: [5. 5. 5. 5. 5. 5. 5. 5. 5. 5.1

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 *2*2 24 26 28 30 32 34]

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

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[17] 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])

[15] a = np.array([1, 2, 3])

print(a)

b = np.array([4, 5, 6]} print(b)

print("\n---Result of a and b---') print(np.conc**atenate((a, b)))**

[1 2 3] [4 5 6]

---Result of a and b--- **[1 2 3 4 5 6]**

**Pandas**

8. Create a dataframe with 3 rows and 2 columns

[13] impor**t pandas as pd**

[14]

**dat**a=[10,20,30] **d=pd.DataFrame(data, colu**mns=[ 'Numbers']) print(d)

**Numbers**

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

on [12] impo**rt pandas as pd**

**from dateutil.parser import parse** date\_series=pd.Series(['Jan 2023', 'Feb 2023']) print("Original Series:") print**(date\_series)**

Original Series: 0 . Jan 2023

**Feb 2023 dtype: object**

10. Create 2D list to DataFrame

lists = [[1, 'aaa', 22). [2, 'bbb', 252, (3, 'ccc', 24]]

[11] impor**t pandas as pd**

lists = [[1, 'aaa', 22], [2, "bbb', 25]. [3, ccc', 24]] df = pd.DataFrame(lists, columns = ['number', 'name', 'Lnumber']) print(df)

number

Enumber name

**1 aaa** 2 bbb 3 CCC

Os

completed at 10:00 PM