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| --- | --- |
| * Print all   Basic Python  1. Split this string  [ ]  s = "Hi there Sam!"  [ ]  s="Hi there Sam!"  x=s.split()  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 Earth is {0} kilometers".format(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']}]}]}  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?  [ ]  import numpy as np  array=np.zeros(10)  print(array)  [0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]  [ ]  import numpy as np  array = np.arange(20,35,2)  print(array)  [20 22 24 26 28 30 32 34]  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)  [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.ones(10)\*5  print(array)  [5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]  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),axis=0)  array([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 = [['tom', 10], ['nick', 15], ['juli', 14]]  df = pd.DataFrame(data, columns=['Name', 'Age'])  print(df)     Name Age  0 tom 10  1 nick 15  2 juli 14  9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023  [ ]  lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]  df = pd.DataFrame(lists, columns = ['roll\_no', 'alpha','reg\_no'])  print(df)     roll\_no alpha reg\_no  0 1 aaa 22  1 2 bbb 25  2 3 ccc 24  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]]  [ ]  import pandas as pd  per1 = pd.date\_range(start ='1-1-2023',           end ='02-10-2023')  for val in per1:      print(val)  2023-01-01 00:00:00  2023-01-02 00:00:00  2023-01-03 00:00:00  2023-01-04 00:00:00  2023-01-05 00:00:00  2023-01-06 00:00:00  2023-01-07 00:00:00  2023-01-08 00:00:00  2023-01-09 00:00:00  2023-01-10 00:00:00  2023-01-11 00:00:00  2023-01-12 00:00:00  2023-01-13 00:00:00  2023-01-14 00:00:00  2023-01-15 00:00:00  2023-01-16 00:00:00  2023-01-17 00:00:00  2023-01-18 00:00:00  2023-01-19 00:00:00  2023-01-20 00:00:00  2023-01-21 00:00:00  2023-01-22 00:00:00  2023-01-23 00:00:00  2023-01-24 00:00:00  2023-01-25 00:00:00  2023-01-26 00:00:00  2023-01-27 00:00:00  2023-01-28 00:00:00  2023-01-29 00:00:00  2023-01-30 00:00:00  2023-01-31 00:00:00  2023-02-01 00:00:00  2023-02-02 00:00:00  2023-02-03 00:00:00  2023-02-04 00:00:00  2023-02-05 00:00:00  2023-02-06 00:00:00  2023-02-07 00:00:00  2023-02-08 00:00:00  2023-02-09 00:00:00  2023-02-10 00:00:00 |  |