**Basic Python**

**1. Split this string**

In [1]:

s **=** "Hi there Afreenyusufa!"

In [2]:

s**.**split()

Output [2]:

['Hi', 'there', 'Afreenyusufa!']

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

**Output should be: The diameter of Earth is 12742 kilometers.**

In [1]:

Planet **=** "Earth"

diameter **=** 12742

In [3]:

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"**

In [4]:

d **=** {'k1': [1, 2, 3, {'tricky': ['oh','man','inception', {'target': [1, 2, 3,'hello']}]}]}

In [5]:

d ['k1'] [3] ['tricky'] [3] ['target'] [3]

Output [5]:

'hello'

**Numpy**

In [6]:

**import** numpy **as** np

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

**4.2 Create an array of 10 fives?**

In [7]:

np**.**zeros (10)

Output [7]:

array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])

In [8]:

np**.**ones (10) **\***5

Output [8]:

array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])

**5. Create an array of all the even integers from 20 to 35**

In [9]:

Print (np**.**arange (20, 35, and 2))

[20 22 24 26 28 30 32 34]

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

In [10]:

np**.**arange (0, 9) **.**reshape ((3, 3))

Output [10]:

array ([[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])**

In [11]:

Print ('\n---Results of a ([1, 2, 3]) and b ([4, 5, 6]) ---')

---Results of a ([1, 2, 3]) and b ([4, 5, 6]) ---

**Pandas**

**8. Create a data frame with 3 rows and 2 columns**

In [19]:

**import** pandas **as** pad

In [21]:

dT **=** {'Name': {‘swetha’, 'afreen,'priya'}, ‘age’: {'20','46','22'}}

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

In [22]:

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

**10. Create 2D list to DataFrame**

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

In [23]:

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

In [24]:

lists **=**{"s.no": [1,2,3], "name":['aaa','bbb','ccc'], "value":[22,25,24] }

In [25]:

pd**.**DataFrame(lists)

Output [25]:

|  | **s.no** | **name** | **value** |
| --- | --- | --- | --- |
| **0** | 1 | aaa | 22 |
| **1** | 2 | bbb | 25 |
| **2** | 3 | ccc | 24 |

In [26]:

pd**.**DataFrame(lists,index**=**["A","b","c"])

Output [26]:

|  | **s.no** | **name** | **value** |
| --- | --- | --- | --- |
| **A** | 1 | aaa | 22 |
| **b** | 2 | bbb | 25 |
| **c** | 3 | ccc | 24 |

In [ ]: