**Assignment -1**

Python Programming

|  |  |  |  |  |  |  |  |  |  |  |  |
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|  | | | |  |  | | --- | --- | | **Assignment Date** | 08 September 2022 | | **Student Name** | Ms. Jeyadarshini P | | **Student Register Number** | 910619104034 | | **Maximum Marks** |  |   **Basic Python** |
| **1. Split this string** |
| In | [ | ]: | s **=** "Hi there Sam!" |
|  |  |  |  |
| In | [ | ]: | s**=**"Hi there Sam!" s**=**s**.**split()  print(s); |
|  |  |  | ['Hi', 'there', 'Sam!'] |
|  |  |  | **2. Use .format() to print the following string.** |
|  |  |  | **Output should be: The diameter of Earth is 12742 kilometers.** |
| In | [ | ]: | planet **=** "Earth" diameter **=** 12742 |
|  |  |  |  |
| In | [ | ]: | 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"** |
| In | [ | ]: | d **=** {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]} |
|  |  |  |  |
| In | [ | ]: | d **=** {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]} print(d['k1'][3]["tricky"][3]['target'][3]) |
|  |  |  | hello |
|  |  |  | **Numpy** |
| In | [ | ]: | **import** numpy **as** np |
|  |  |  | **4.1 Create an array of 10 zeros?** |
|  |  |  | **4.2 Create an array of 10 fives?** |

print(array)

|  |  |  |
| --- | --- | --- |
| In [ ]: | array**=**np**.**zeros(10) | |
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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | [0. 0. 0. 0. 0. 0. 0. 0. 0. 0.] | | |
| In | [ | ]: | array**=**np**.**ones(10)**\***5 print(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 | [ | ]: | print(np**.**arange(20,35,2)) | | |
|  |  |  | [20 22 24 26 28 30 32 34] | | |
|  |  |  | **6. Create a 3x3 matrix with values ranging from 0 to 8** | | |
| In | [ | ]: | (np**.**arange(0,9)**.**reshape((3,3))) | | |
| Out[ | | ]: | array([[0, | 1, | 2], |
|  | |  | [3, | 4, | 5], |
|  | |  | [6, | 7, | 8]]) |
|  |  |  | **7. Concatinate a and b** | | |
|  |  |  | **a = np.array([1, 2, 3]), b = np.array([4, 5, 6])** | | |
| In | [ | ]: | a **=** np**.**array([1, 2, 3])  b **=** np**.**array([4, 5, 6])  print (np**.**concatenate((a,b))) | | |
|  |  |  | [1 2 3 4 5 6] | | |
|  |  |  | **Pandas** | | |
|  |  |  | **8. Create a dataframe with 3 rows and 2 columns** | | |
| In | [ | ]: | **import** pandas **as** pd  **import** numpy **as** np | | |
|  |  |  |  | | |
| In | [ | ]: | df **=** np**.**random**.**randint(10, size**=**(3,2)) df | | |
| Out[ | | ]: | array([[4, | 9], | |
|  | |  | [9, | 5], | |
|  | |  | [2, | 7]]) | |

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

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**10th Feb, 2023**