**Assignment -1**

|  |  |
| --- | --- |
| Assignment Date | 19 September 2022 |
| Student Name | Ajay E |
| Student Roll Number | 210519205003 |
| Maximum Marks | 2 Marks |

**Question-1:**

**Split this string**

Solution:

s="Hi there Sam!"

s=s.split()

print(s);

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

**Question-2:**

## Use .format() to print the following string.

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

## Solution:

planet = "Earth"

diameter = 12742

planet = "Earth"

diameter = 12742

print('The diameter of {} is {} kilometer.' .format(planet,diameter));

The diameter of Earth is 12742 kilometer.

**Question-3:**

## In this nest dictionary grab the word "hello"

## Solution:

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

lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]

lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]

a=lst[3][1][2];

print(a)

['hello']

## Question-4:

## Create an array of 10 zeros?

## reate an array of 10 fives?

import numpy as np

array=np.zeros(10)

print("An array of 10 zeros:")

print(array)

array=np.ones(10)\*5

print("An array of 10 fives:")

print(array)

An array of 10 zeros:

[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]

An array of 10 fives:

[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]

## Question-5:

## Create an array of all the even integers from 20 to 35

## Solution:

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 22 24 26 28 30 32 34]

## Question-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])

print(a)

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

print(b)

print('\n---Result of a and b---')

print(np.concatenate((a, b)))

[1 2 3]

[4 5 6]

---Result of a and b---

[1 2 3 4 5 6]

## Question-8:

## Create a dataframe with 3 rows and 2 columns

## Solution:

import pandas as pd

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])

## Question-9:

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

## Solution:

import pandas as pd

pd.date\_range(start='01/01/2023',end='02/10/2023')

DatetimeIndex(['2023-01-01', '2023-01-02', '2023-01-03', '2023-01-04',

               '2023-01-05', '2023-01-06', '2023-01-07', '2023-01-08',

               '2023-01-09', '2023-01-10', '2023-01-11', '2023-01-12',

               '2023-01-13', '2023-01-14', '2023-01-15', '2023-01-16',

               '2023-01-17', '2023-01-18', '2023-01-19', '2023-01-20',

               '2023-01-21', '2023-01-22', '2023-01-23', '2023-01-24',

               '2023-01-25', '2023-01-26', '2023-01-27', '2023-01-28',

               '2023-01-29', '2023-01-30', '2023-01-31', '2023-02-01',

               '2023-02-02', '2023-02-03', '2023-02-04', '2023-02-05',

               '2023-02-06', '2023-02-07', '2023-02-08', '2023-02-09',

               '2023-02-10'],

              dtype='datetime64[ns]', freq='D')

## Question-10:

## Create 2D list to DataFrame

## Solution:

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

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

import pandas as pd

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

pd.DataFrame(lists)

    0   1   2

0   1   aaa     22

1   2   bbb     25

2   3   ccc     24