Assignment -1

Assignment Date	19 September 2022
Student Name	Rubanchinnarathinam M
Student Roll Number	210519205042
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:

1. **Create an array of 10 zeros?**
2. **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
```