Assignment -1

Basic Python

Assignment Date	12 September 2022
Student Name	Mr. Siddha S
Student Roll Number	2127190801075
Maximum Marks	2 Marks

Question 1:

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1. Split this string

```
In [1]: s = "Hi there Sam!"

In [2]: s.split()
Out[2]: ['Hi', 'there', 'Sam!']
```

Question 2:

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

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

```
In [3]: planet = "Earth"
        diameter = 12742

In [4]: print("The diameter of {} is {} kilometers.". format(planet , diameter))
        The diameter of Earth is 12742 kilometers.
```

Question 3:

3. In this nest dictionary grab the word "hello"

```
In [5]: d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}

In [6]: d['k1'][3]['tricky'][3]['target'][3]
Out[6]: 'hello'
```

Question 4:

Numpy

In [7]:
```
import numpy as np
```

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

In [8]:
```
first = np.zeros(10)
first
```

Out[8]:
```
array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])
```

In [9]:
```
second = np.ones(10)*5
second
```

Out[9]:
```
array([5., 5., 5., 5., 5., 5., 5., 5., 5., 5.])
```

Question 5:

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

In [10]:
```
a = np.arange(20,35,2)
a
```

Out[10]:
```
array([20, 22, 24, 26, 28, 30, 32, 34])
```

Question 6:

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

In [11]:
```
X = np.arange(0,9).reshape(3,3)
X
```

Out[11]:
```
array([[0, 1, 2],
       [3, 4, 5],
       [6, 7, 8]])
```

Question 7:

7. Concatenate a and b

a = np.array([1, 2, 3]), b = np.array([4, 5, 6])

In [12]:
```
a = np.array([1,2,3])
b = np.array([4,5,6])
np.concatenate((a,b),axis=0)
```

Out[12]:
```
array([1, 2, 3, 4, 5, 6])
```

Question 8:

8. Create a dataframe with 3 rows and 2 columns

In [13]:
```
import pandas as pd
```

In [14]:
```
data = {"name":["siddha","santhosh","satheesh"],"age":[20,19,21]}
dataframe = pd.DataFrame(data)
dataframe
```

Out[14]:

	name	age
0	siddha	20
1	santhosh	19
2	satheesh	21

Question 9:

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

In [15]:
```
cal = pd.date_range(start='1-1-2023',end='10-2-2023')
for x in cal:
  print(x)
```

```
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
```

Question 10 :

10. Create 2D list to DataFrame

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

In [16]:
```
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
```

In [17]:
```
dataframe = pd.DataFrame(lists)
dataframe
```

Out[17]:

	0	1	2
0	1	aaa	22
1	2	bbb	25
2	3	ccc	24