Assignment - 1

Python Programming

PID Number	PNT2022TMID13322
Assignment Date	19 September 2022
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Maximum Marks	2 Marks

Question 1:

Split the String

Basic Python

1. Split this string

```
[ ]: s = "Hi there Sam!".split()
     print(s)
```

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

Question 2:

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

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

```
The diameter of Earth is 12742 kilometers.
```

Question 3:

In this nest dictionary grab the word “hello”

```
[4]: d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
     print(d['k1'][3]["tricky"][3]['target'][3])
```

```
hello
```

Question 4:

Create an array of 10 zeros?

Create an array of 10 fives?

```
In [6]: vin=np.zeros(10)
        print(vin)
```

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

```
In [7]: y=np.ones(10)*5
        print(y)
```

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

Question 5:

Create an array of all even integers from 20 to 35

In [8]:
```
evn=np.arange(20,35,2)
print("Array of even integers from 25 to 35")
print(evn)
```

```
Array of even integers from 25 to 35
[20 22 24 26 28 30 32 34]
```

Question 6:

Create a 3X3 matrix with the values ranging from 0 to 8

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

```
[[0 1 2]
 [3 4 5]
 [6 7 8]]
```

Question 7:

Concatenate a and b

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

In [10]:
```
a=np.array([[1,2,3]])
b=np.array([[4,5,6]])
np.concatenate((a,b),axis=0)
```

Out[10]:
```
array([[1, 2, 3],
       [4, 5, 6]])
```

Question 8:

Create a data frame with 3 rows and 2 columns

In [11]:
```
import pandas as pd
```

In [13]:
```
df=pd.DataFrame()
print(df)
```

```
Empty DataFrame
Columns: []
Index: []
```

Question 9:

Generates the series of dates starts from 1st JAN 2023, to 10th FEB 2023

In [18]:
```
import datetime
tes=datetime.datetime.strptime("01-1-2023","%d-%m-%Y")
z=datetime.datetime.strptime("10-2-2023","%d-%m-%Y")
dag=pd.date_range(tes,z)
print(dag.strftime("%d-%m-%Y"))
```

```
Index(['01-01-2023', '02-01-2023', '03-01-2023', '04-01-2023', '05-01-2023',
       '06-01-2023', '07-01-2023', '08-01-2023', '09-01-2023', '10-01-2023',
       '11-01-2023', '12-01-2023', '13-01-2023', '14-01-2023', '15-01-2023',
       '16-01-2023', '17-01-2023', '18-01-2023', '19-01-2023', '20-01-2023',
       '21-01-2023', '22-01-2023', '23-01-2023', '24-01-2023', '25-01-2023',
       '26-01-2023', '27-01-2023', '28-01-2023', '29-01-2023', '30-01-2023',
       '31-01-2023', '01-02-2023', '02-02-2023', '03-02-2023', '04-02-2023',
       '05-02-2023', '06-02-2023', '07-02-2023', '08-02-2023', '09-02-2023',
       '10-02-2023'],
      dtype='object')
```

Question 10:

Create 2D list to data frame

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

In [21]:
```
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
vi=pd.DataFrame(lists,columns=['s.no','letter','num'])
print(vi)
```

```
   s.no letter  num
0     1    aaa   22
1     2    bbb   25
2     3    ccc   24
```