Assignment -1

Python Programming

Assignment Date	12 September 2022
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Maximum Marks	2 Marks

Question-1:

Split this string

Solution:

Basic Python

1. Split this string

```
[ ]  s = "Hi there Sam!"
```

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

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

Question-2:

Use .format() to print the following string.

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

Solution:

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

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

```
[ ]  planet = "Earth"
     diameter = 12742
```

```
[ ]  print("The diameter of {} is {} kilometers.".format(planet,diameter))

     The diameter of Earth is 12742 kilometers.
```

Question-3:

In this nest dictionary grab the word "hello"

Solution:

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

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

```
[ ] d['k1'][3]['tricky'][3]['target'][3]

    'hello'
```

Numpy

```
[ ] import numpy as np
```

Question-4:

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

Solution:

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

```
[ ] a=np.zeros(10)
    a

    array([0., 0., 0., 0., 0., 0., 0., 0., 0., 0.])
```

```
[ ] b=np.ones(10)*5
    b

    array([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:

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

```
[ ]  s=np.arange(20,35,2)
     s
```

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

Question-6:

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

Solution:

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

```
[ ]  array =np.arange(0,9).reshape(3,3)
     array
```

```
array([[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])

7. Concatenate a and b

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

```
[ ]  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])
```

Pandas

Solution:

Question-8:

Create a dataframe with 3 rows and 2 columns

Solution:

8. Create a dataframe with 3 rows and 2 columns

```
[ ] import pandas as pd
```

```
d={"names":["fahmi","santhi","poorni"],"age":[20,19,20]}
df=pd.DataFrame(d)
df
```

	names	age
0	fahmi	20
1	santhi	19
2	poorni	20

Question-9:

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

Solution:

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

```
[ ] p=pd.date_range(start='1-1-2023',end='10-2-2023')
    for val in p:
      print(val);
```

```
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
```

```
2023-09-05 00:00:00
2023-09-06 00:00:00
2023-09-07 00:00:00
2023-09-08 00:00:00
2023-09-09 00:00:00
2023-09-10 00:00:00
2023-09-11 00:00:00
2023-09-12 00:00:00
2023-09-13 00:00:00
2023-09-14 00:00:00
2023-09-15 00:00:00
2023-09-16 00:00:00
2023-09-17 00:00:00
2023-09-18 00:00:00
2023-09-19 00:00:00
2023-09-20 00:00:00
2023-09-21 00:00:00
2023-09-22 00:00:00
2023-09-23 00:00:00
2023-09-24 00:00:00
2023-09-25 00:00:00
2023-09-26 00:00:00
2023-09-27 00:00:00
2023-09-28 00:00:00
2023-09-29 00:00:00
2023-09-30 00:00:00
2023-10-01 00:00:00
2023-10-02 00:00:00
```

Question-10:

Create 2D list to DataFrame

Solution:

10. Create 2D list to DataFrame

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

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

```
[ ]  df=pd.DataFrame(lists)
     df
```

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