Assignment -1

Python Programming

Basic Python

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

1. Split this string

In [ ]:

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

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

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

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

In [ ]:
```
planet = "Earth"

diameter = 12742
```

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

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

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

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

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

```
hello
```

```
import numpy as np
```

Numpy

In [ ]:

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

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

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

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

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

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

In [ ]:
```
print(np.arange(20,35,2))
```

```
[20 22 24 26 28 30 32 34]
```

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

```
(np.arange(0,9).reshape((3,3)))
```

to 8

In [ ]:

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

7. Concatinate a and b

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

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

In [ ]:

```
[1 2 3 4 5 6]
```

print**Pandas**(array)

8. Create a dataframe with 3 rows and 2 columns

In [ ]:
```
import pandas as pd import
numpy as np
```

In [ ]:
```
df = np.random.randint(10, size=(3,2))
df
```

Out[ ]:
```
array([[4, 9],
       [9, 5],
       [2, 7]])
```

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

10th Feb, 2023