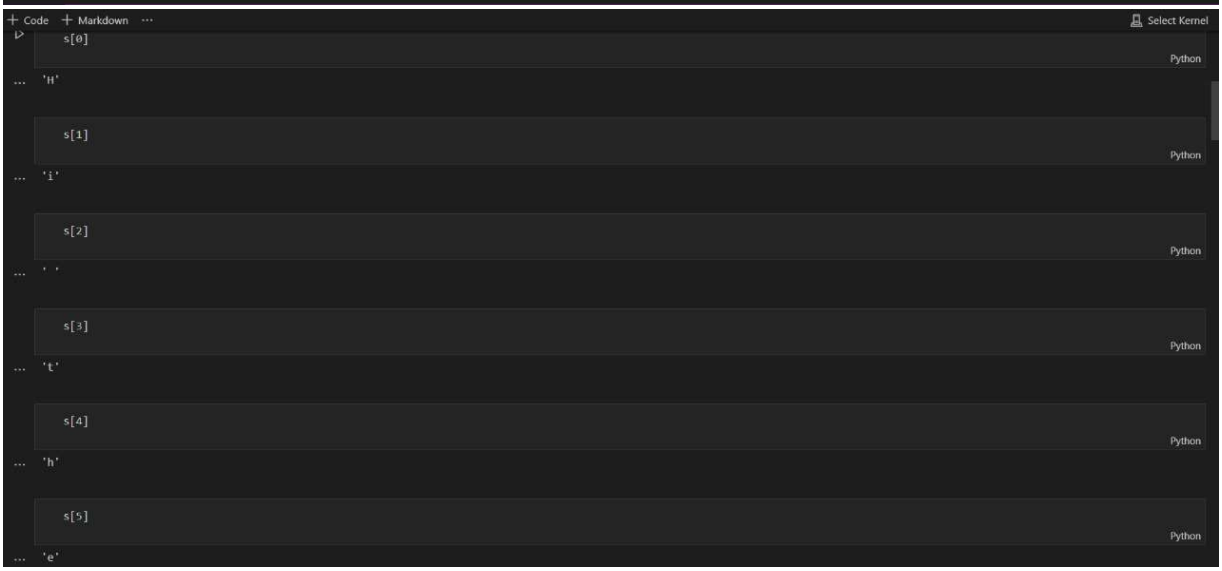
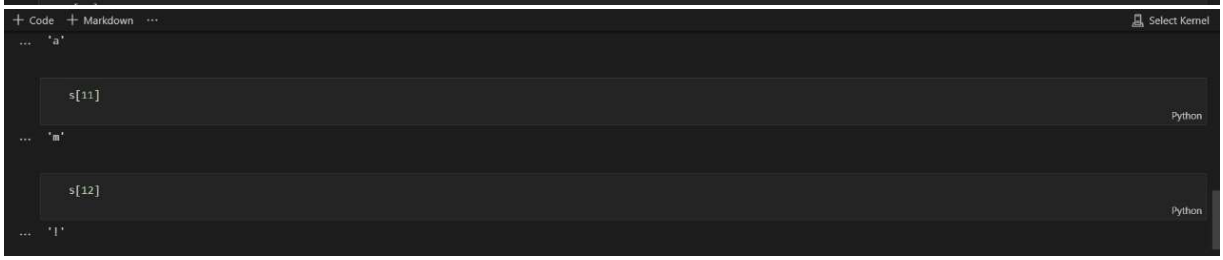
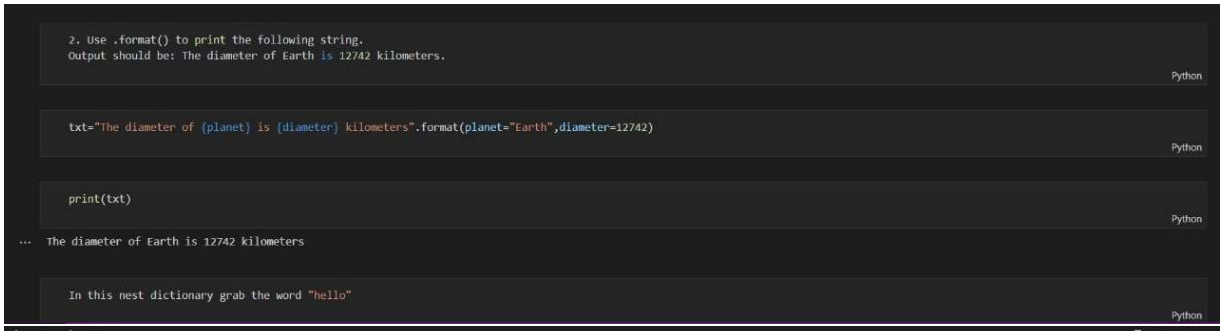
ASSIGNMENT – 1

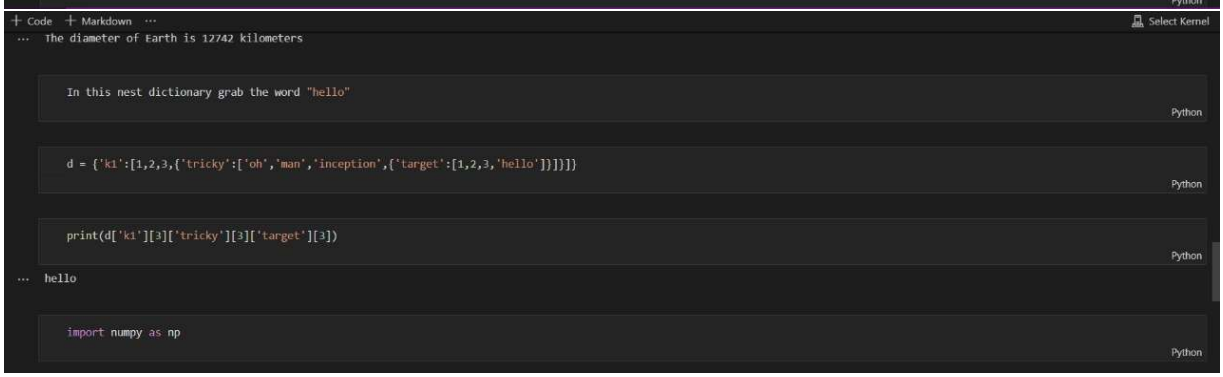
1. Split this string





2. Use .format() to print the following string.
Output should be: The diameter of Earth is 12742 kilometers.





4.1 Create an array of 10 zeros?

```
4.1 Create an array of 10 zeros?
```

Python

```
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
```

Python

```
... An array of 10 zeros:
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

+ Code + Markdown ··· Select Kernel

```
... An array of 10 zeros:
[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
```

```
Create an array of 10 fives?
```

Python

```
array=np.ones(10)*5
print("An array of 10 fives:")
print(array)
```

Python

```
... An array of 10 fives:
[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]
```

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

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

Python

```
array=np.arange(20,35,2)
print("Array of all the even integers from 20 to 35")
print(array)
```

Python

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

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

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

Python

```
x =  np.arange(0, 9).reshape(3,3)
print(x)
```

Python

```
... [[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])
```

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

Python

```
import numpy as np
a = np.array([1, 2, 3])
b = np.array([4, 5, 6])
np.concatenate((a, b), axis=0)
```

8. Create a dataframe with 3 rows and 2 columns

```
8. Create a dataframe with 3 rows and 2 columns
```

Python

```
import pandas as pd
import numpy as np
A = np.random.randint(10, size=(3,2))
df = pd.DataFrame(A)
```

Python

```
df
```

Python

```
...    0  1
   0  9  8
   1  3  1
   2  0  6
```

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

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

Python

```
import pandas as pd

per1 = pd.date_range(start ='1-1-2023',
                     end ='10-2-2023', freq ='M')
```

+ Code + Markdown ··· Select Kernel

```
import pandas as pd

per1 = pd.date_range(start ='1-1-2023',
                     end ='10-2-2023', freq ='M')

for val in per1:
    print(val)
```

Python

```
... 2023-01-31 00:00:00
    2023-02-28 00:00:00
    2023-03-31 00:00:00
    2023-04-30 00:00:00
    2023-05-31 00:00:00
    2023-06-30 00:00:00
    2023-07-31 00:00:00
    2023-08-31 00:00:00
    2023-09-30 00:00:00
```

```
        10. Create 2D list to DataFrame
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]
```