Assignment -1

Python Programming

Assignment Date	12 September 2022
Student Name	T.Valarmathi
Student Roll Number	912419104035
Maximum Marks	2 Marks

Question-1:

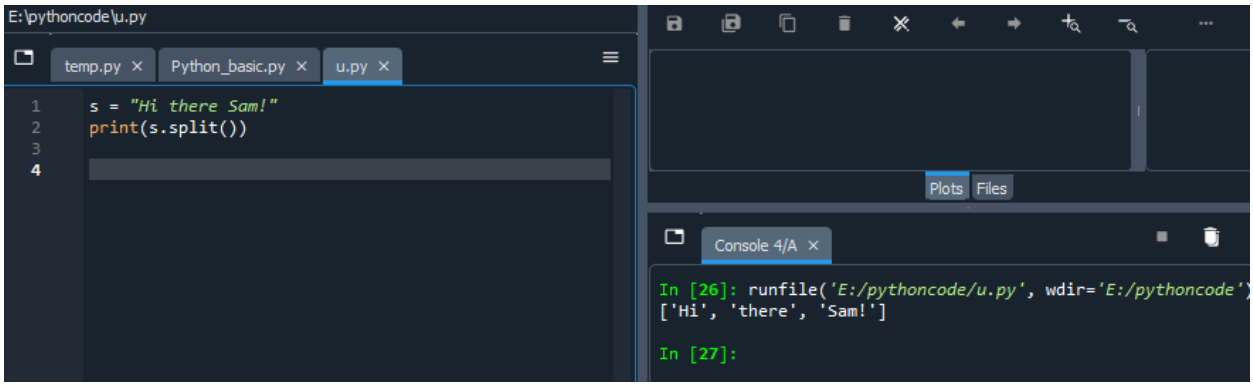
Split this string

"Hi there Sam!"

Solution:

```
s = "Hi there Sam!"

print(s.split())
```



Question-2:

Use .format() to print the following string.

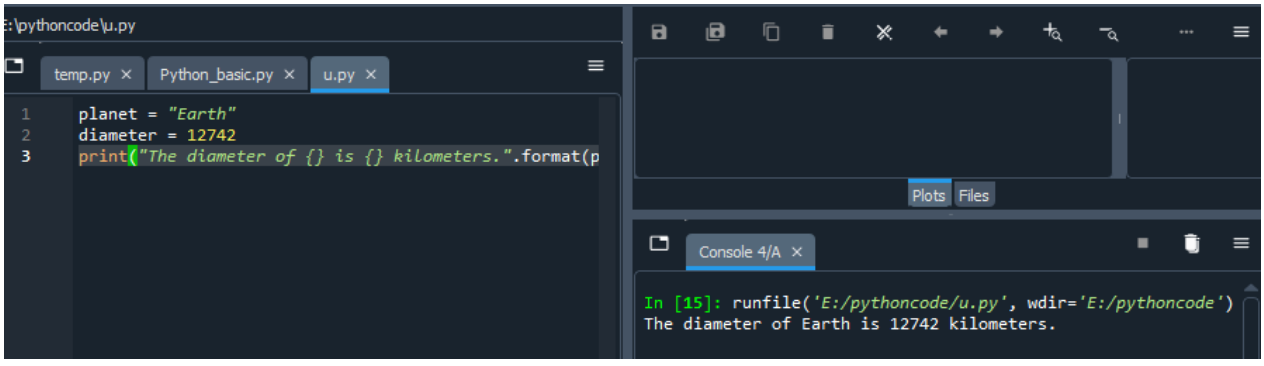
Output should be: The diameter of Earth is 12742 kilometers.

Solution:

```
planet = "Earth"

diameter = 12742

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



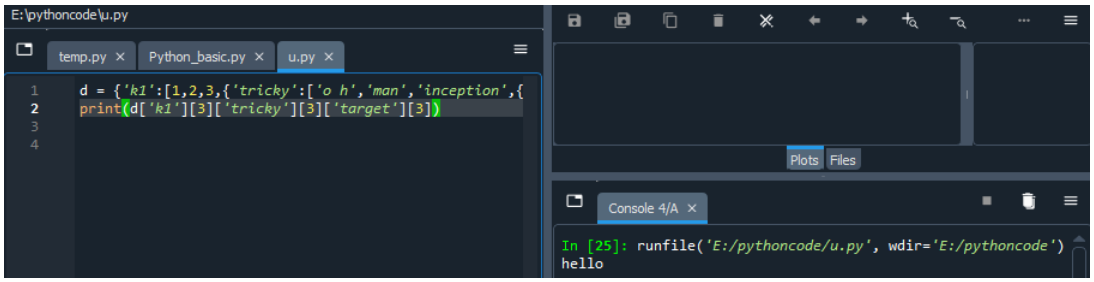
Question-3:

In this nest dictionary grab the word "hello"

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

solution:

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

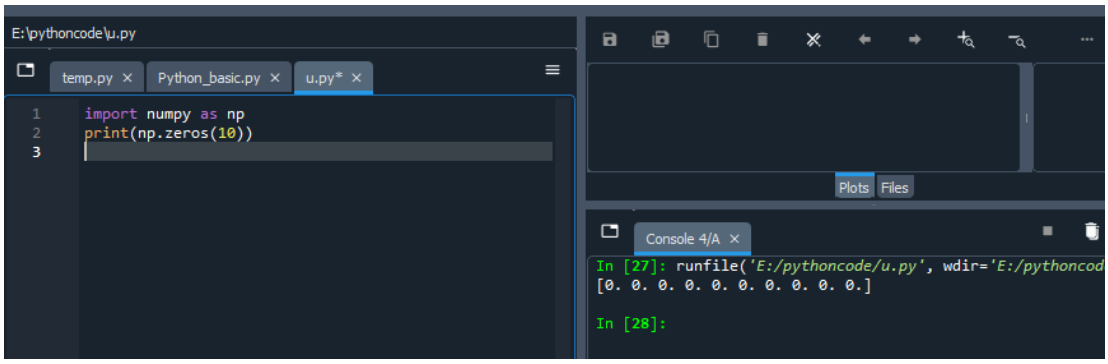


Question-4.1:

Create an array of 10 zeros?

Solution:

```
import numpy as np
print(np.zeros(10))
```



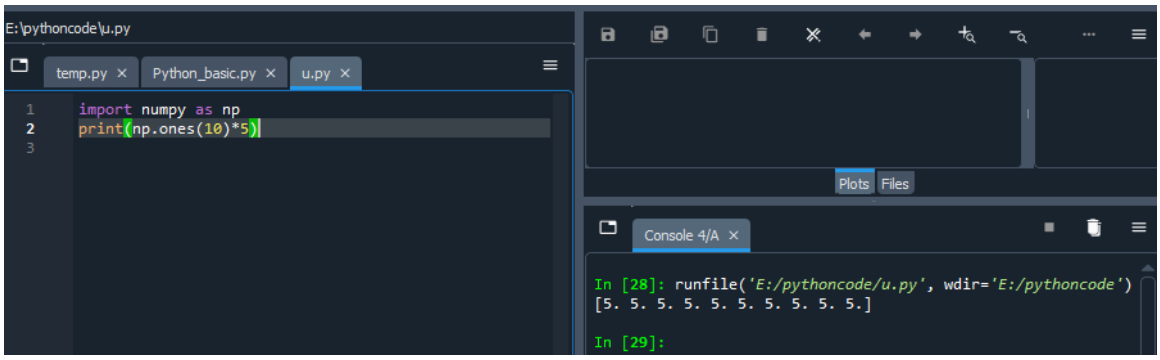
Question-4.2:

Create an array of 10 fives?

Solution:

```
import numpy as np

print(np.ones(10)*5)
```



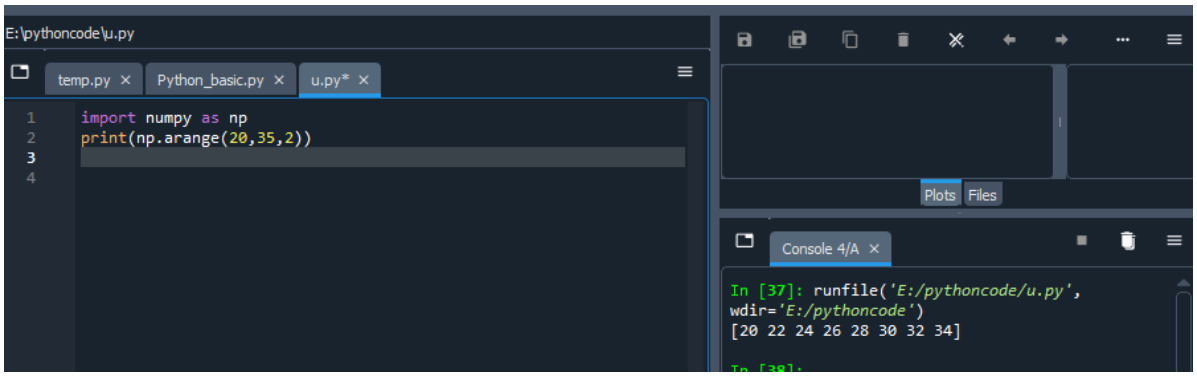
Question-5:

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

Solution:

```
import numpy as np

print(np.arange(20,35,2))
```



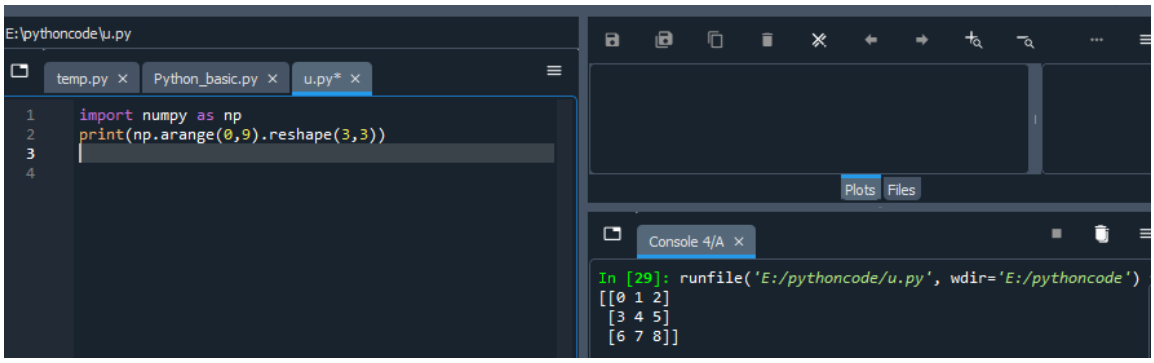
Question-6:

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

Solution:

```
import numpy as np

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



Question-7:

Concatenate a and b

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

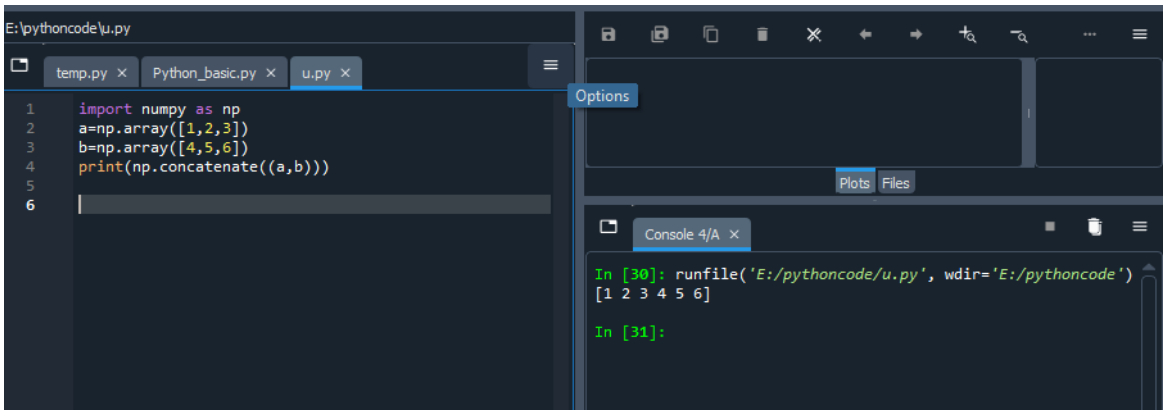
solution:

```
import numpy as np

a=np.array([1,2,3])

b=np.array([4,5,6])

print(np.concatenate((a,b)))
```

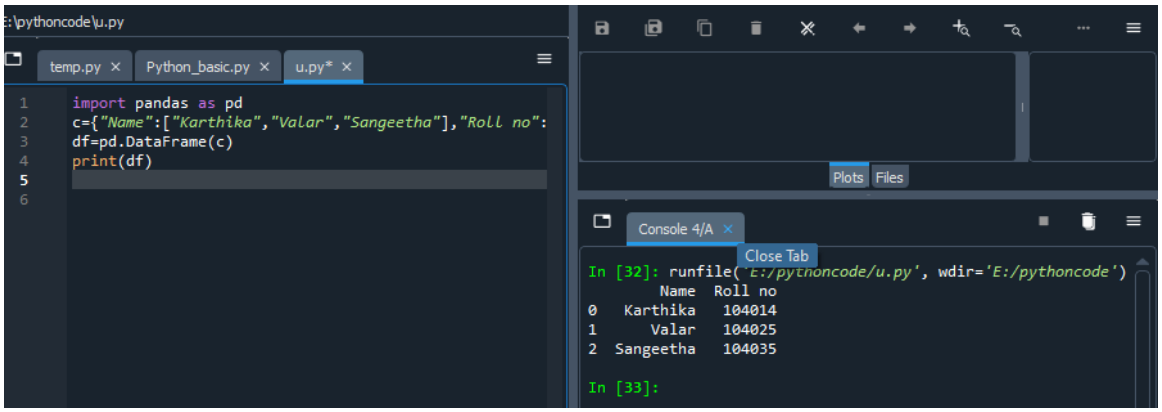


Question-8:

Create a dataframe with 3 rows and 2 columns

Solution:

```
import pandas as pd
c={"Name":["Karthika","Valar","Sangeetha"],"Roll no":[104014,104025,104035]}
df=pd.DataFrame(c)
print(df)
```

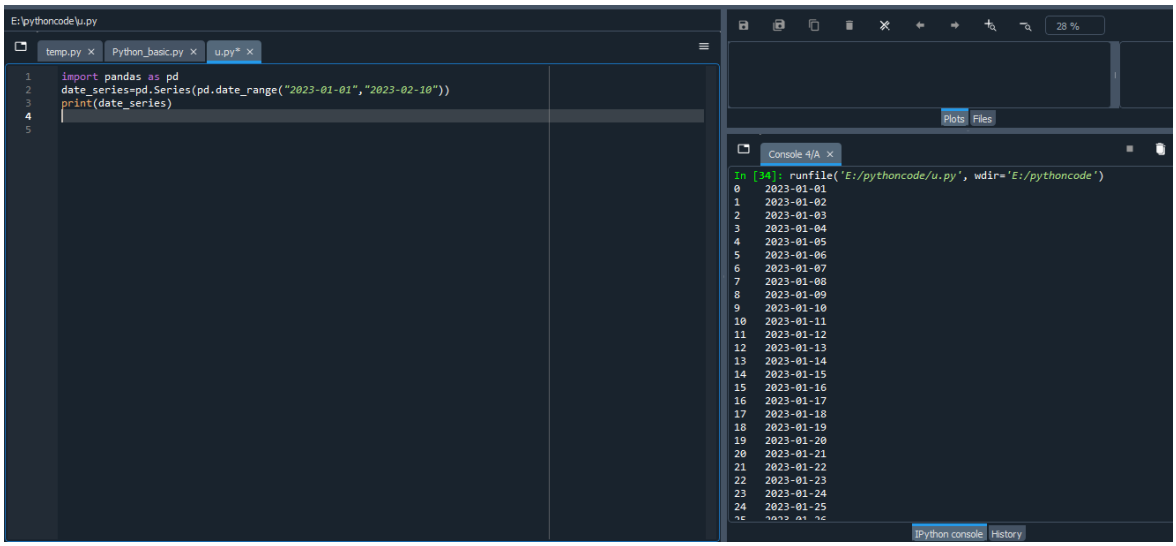


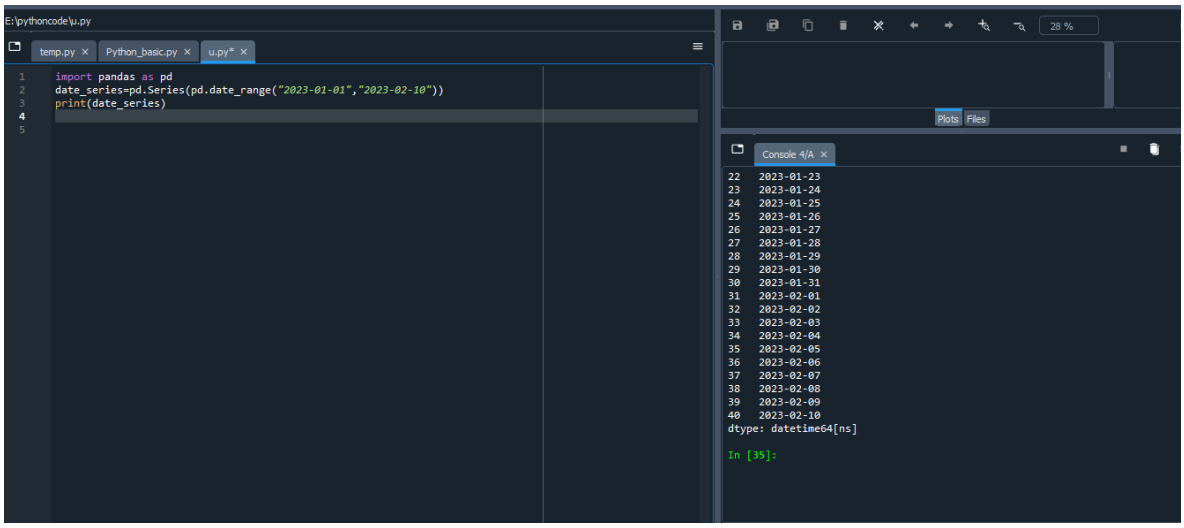
Question-9:

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

Solution:

```
import pandas as pd
date_series=pd.Series(pd.date_range("2023-01-01","2023-02-10"))
print(date_series)
```





Question-10:

Create 2D list to DataFrame

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

solution:

```
import pandas as pd

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

list1=zip(lists)

df=pd.DataFrame(list1)

print(df)
```