ASSIGNMENT 1
PYTHON PROGRAMMING

ASSIGNMENT DATE	09 SEPTEMBER 2022
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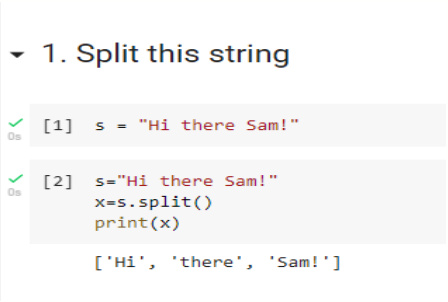
STUDENT ROLL NUMBER	962719106024
MAXIMUM MARKS	2 MARKS

1.Split this string

SOLUTION

```
s="Hi there Sam!"
x=s.split
print(x)
```



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

```
planet="Earth";
diameter=12742;
print("The diameter of"+planet+"is",diameter,"kilometers");
```

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

```
print(d['k1'][3]["tricky"][3]
['target'][3])
```

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

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

print(d['k1'][3]["tricky"][3]
['target'][3])
```

```
hello
```

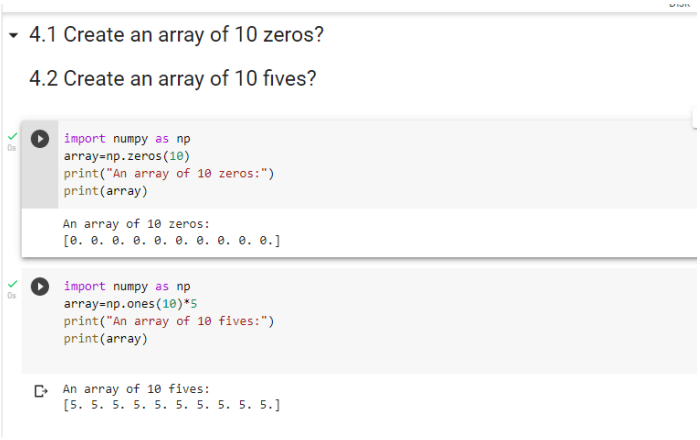
Double-click (or enter) to edit

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

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

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



4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

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

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

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

```
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

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

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

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

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

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

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

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

```
[14] import numpy as np
     x=np.arange(0,9).reshape(3,3)
     print(x)

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

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

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

7. Concatenate a and b

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

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

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

8. Create a dataframe with 3 rows and 2 columns

```
data=[['tom',10],['nick',15],['juli',14]]

df=pd.DataFrame(data,columns=['Name','Age'])

df
```

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8. Create a dataframe with 3 rows and 2 columns

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

```
data=[['tom',10],['nick',15],['juli',14]]
df=pd.DataFrame(data,columns=['Name','Age'])
df
```

	Name	Age
0	tom	10
1	nick	15
2	juli	14

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

```
import datetime
day_delta = datetime.timedelta(days=1)
start_date = datetime.date(2023,1,1)
end_date = start_date+41*day_delta
for i in range((end_date-start_date).days):
    print(start_date + i*day_delta)
```

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

```
import datetime
day_delta = datetime.timedelta(days=1)
start_date = datetime.date(2023,1,1)
end_date = start_date+41*day_delta
for i in range((end_date-start_date).days):
    print(start_date + i*day_delta)
```

```
2023-01-01
2023-01-02
2023-01-03
2023-01-04
2023-01-05
2023-01-06
2023-01-07
2023-01-08
2023-01-09
2023-01-10
2023-01-11
2023-01-12
2023-01-13
2023-01-14
2023-01-15
2023-01-16
2023-01-17
```

10. Create 2D list to DataFrame

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

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

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

```
df=pd.DataFrame(lists,columns=['Number',"Letter",'Number'])
print(df)
```

```
   Number Letter  Number
0       1    aaa      22
1       2    bbb      25
2       3    ccc      24
```