Assignment -1

Basic Python Programming in ipynb

Assignment Date	12 September 2022
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Maximum Marks	2 Marks

BASIC PYTHON

1.SPLITING THE STRING

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

1.SPLITING THE STRING

```
[1] s="Hi there Sam!"
    print(s)
```

```
Hi there Sam!
```

```
[2] x=s.split(' ')
    print(x)
```

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

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

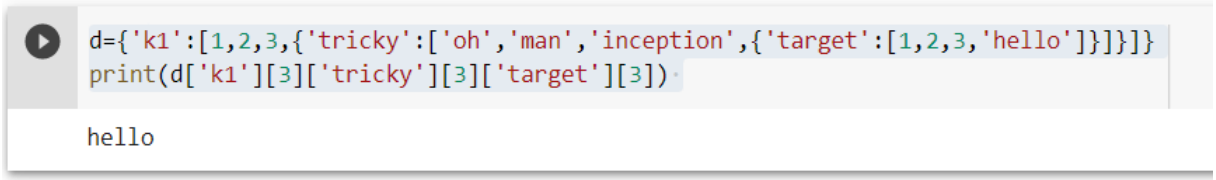
```
planet = "Earth"
diameter = 12742
print( 'The diameter of {} is {} kilometers.'.format(planet,diame
ter))
```

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

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

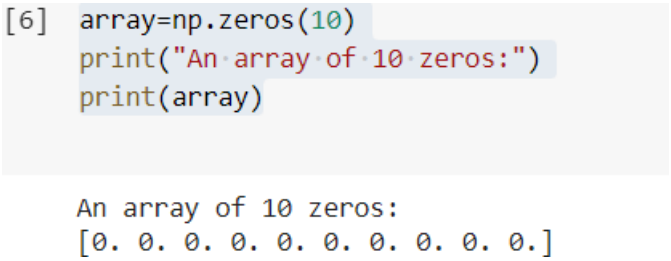
3. In this nest dictionary grab the word "hello"

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



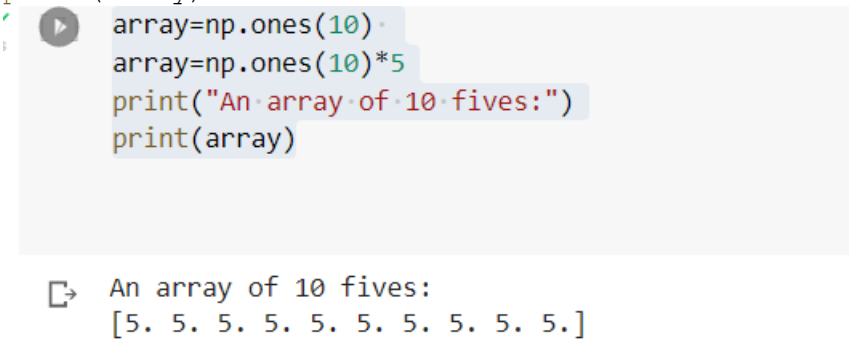
Numpy

```
4.1 Create an array of 10 zeros?
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
```



4.2 Create an array of 10 fives?

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



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

```
f?)  array=np.arange(20,35,2)
     print('Array of all the even integers from 20 to 35")
     pr int (a r ray )
```

```
Array of all the even integers from 20 to 35
[20 22 24 26 28 30 32 3A]
```

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

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

```
[[0 1 2]
```

7 Concatenate a and b

```
[10]  a=np.array( [1, 2, 3 ] )
      b=np. array( [A,5,6] )
      c=np.concatenaze((a,b))
      point ( c)
```

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

Pandas

8. Create a dataframe with 3 rows and 2 columns

```
[11] import pandas as pd
     data=[['ammu',40],['ravi',53],['sankar',70]]
     df=pd.DataFrame(data,columns=['Name','Age'])
     df
```

	Name	Age
0	ammu	40
1	ravi	53
2	sankar	70

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

[12] inipoW pandas as pd
frcxn datet1me 1mport datet1oe
pd.date range(staW="2023-01-01",end="2B23-B2-01'").to pydatet1me() .tol1st()

```
[datetime.datetime(20Z3, 1, 1, 0, 0)*
 datetime.datetime(2023, l, 2,  0, 0),
 datetime.datetime(2023, 1, 3,  0, 0),
 datetime.datetime(2023, 1,    0, 0)*
 datetime.datetime(2023, l, 5,  0, 0)›
 datetime.datetime(2023, 1, 6, 0, 0),
 datetime.datetime(2023, 1,    0, 0),
 datetime.datetime(2023, l, %, 0, 0),
 datetime.datetime(2023, l,    0,  0)›
 datetime.datetime(2023, 1, 10,  0, 0),
 datetime.datetime(2023, 1, 11,  0, 0),
 datetime.datetime(2023, l, 12,  0, 0),
 datetime.datetime(2023, l, 13,  0, 0),
 datetime.datetime(2023, 1, 14,  0, 0),
 datetime.datetime(2023, 1, 15,  0, 0),
 datetime.datetime(2023, l, 16,  0, 0),
 datetime.datetime(2023, 1, 17,  0, 0),
 datetime.datetime(20Z3, 1, 18,  0, 0),
 datetime.datetime(2023, l, 19,  0, 0),
 datetime.datetime(2023, l, 20,  0, 0),
 datetime.datetime(2023, 1, 21,  0, 0),
 datetime.datetime(2023, 1, 22,  0, 0),
 datetime.datetime(2023, l, 23,  0, 0),
 datetime.datetime(2023, 1, 24,  0, 0),
 datetime.datetimef2023. 1. 25. 0. 01.
datetime.datetime(Z0Z3, 1, 23, 0, 0),
datetime.datetime(2023, 1, 24, 0, B),
datetime.datetime(2023, 1, 25, 0, B),
datetime.datetime(2023, 1, 26, 0, B),
datetime.datetime(2023, 1, 27, 0, B),
datetime.datetime(20Z3, 1, 28, 0, 0),
datetime.datetime(2023, 1, 29, 0, B),
datetime.datetime(2023, 1, 30, 0, B),
datetime.datetime(Z0Z3, 1, 31, 0, 0),
datetime.datetime(Z0Z3, 2, 1, 0, 0)]
```

1 0. Create 2D list to Data Frame

```
[13 ]  li st s = [[I,  'a aa' ,  2 2] , [2,  'bb b',  25]  ,  [3,  'c cc ', 24] ]
       df=pd.DataFrame(lists, columns=['s.no', 'alphabet', 'number'])
       print (df)
```

	s .no	alpabet	number
0	1	aaa	22
1	2	bbb	25
2	3	cCc	24