```python
# -*- coding: utf-8 -*-
"""Assignment_1.ipynb

Automatically generated by
Colaboratory.

Original file is located at

https://colab.research.google.com/drive/1aWqhkVA1HUMnJ87bpk2QQB97yvcdjNul

# Basic Python

##
1. Split this string
"""

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



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

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

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



"""## 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])



"""# Numpy"""

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

```python
print(array)



"""## 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 20 to 35")
print(array)

"""## 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)

"""## 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])
np.concatenate([a,b])

"""#
Pandas

## 8. Create a dataframe with 3 rows and 2 columns
"""

import pandas as
pd
lst=[['Geek',25],['is',30],['for',26],['Geekforgeeks',22]]
df=pd.DataFrame(lst,columns=['tag
','number'])
print(df)



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

import datetime
import pandas as pd
test_date =
datetime.datetime.strptime("01-01-2022", "%d-%m-%Y")
K = 41
date_generated
= pd.date_range(test_date,
periods=K)
print(date_generated.strftime("%d-%m-%Y"))

"""## 10.
Create 2D list to DataFrame

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

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

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

```
df=pd.DataFrame(lists)
print(df)
```