ASSIGNMENT-1

Python Programming

Assignment Date	9 th September 2022
Student Name	U. Manju
Student Roll Number	962719106019
Maximum Marks	2 Marks

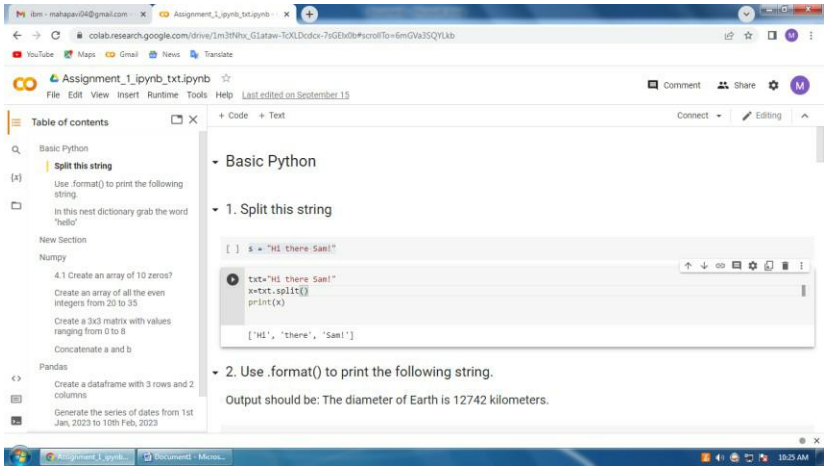
Question-1

Split this string

```
s = "Hi there Sam!"
```

Solution:

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



Question-2

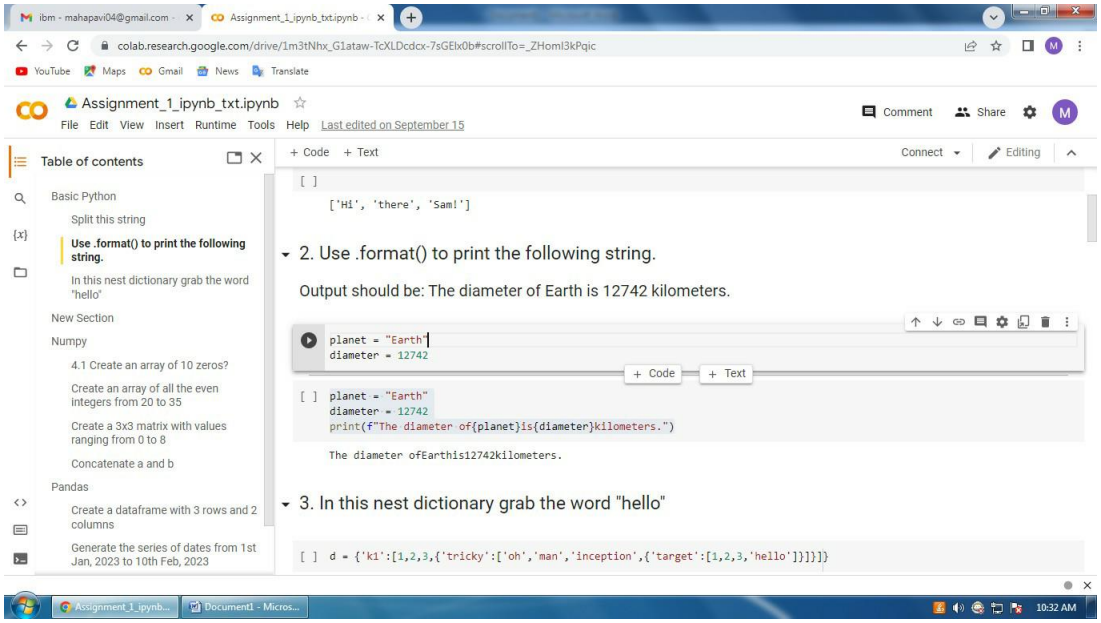
Use .format() to print the following string.

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

```
planet = "Earth"
diameter = 12742
```

solution:

```
planet = "Earth"
diameter = 12742
print(f"The diameter of{planet}is{diameter}kilometers.")
The diameter ofEarthis12742kilometers.
```



Question -3

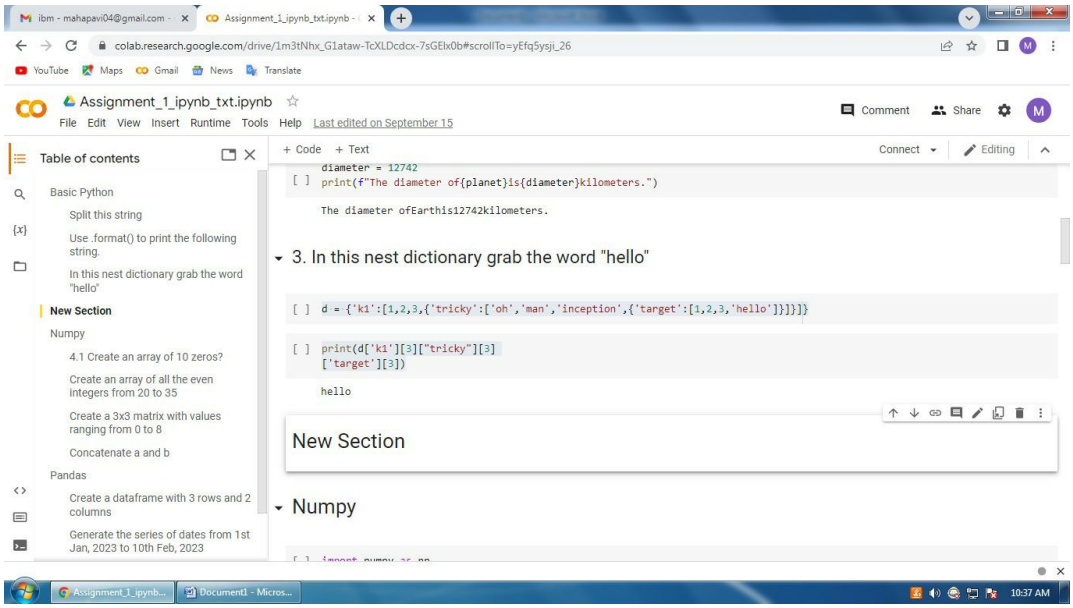
In this nest dictionary grab the word "hello"

CodeText

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

Solution:

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



New Section

```
import numpy as np
```

Question -4

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

4.1 SOLUTION :

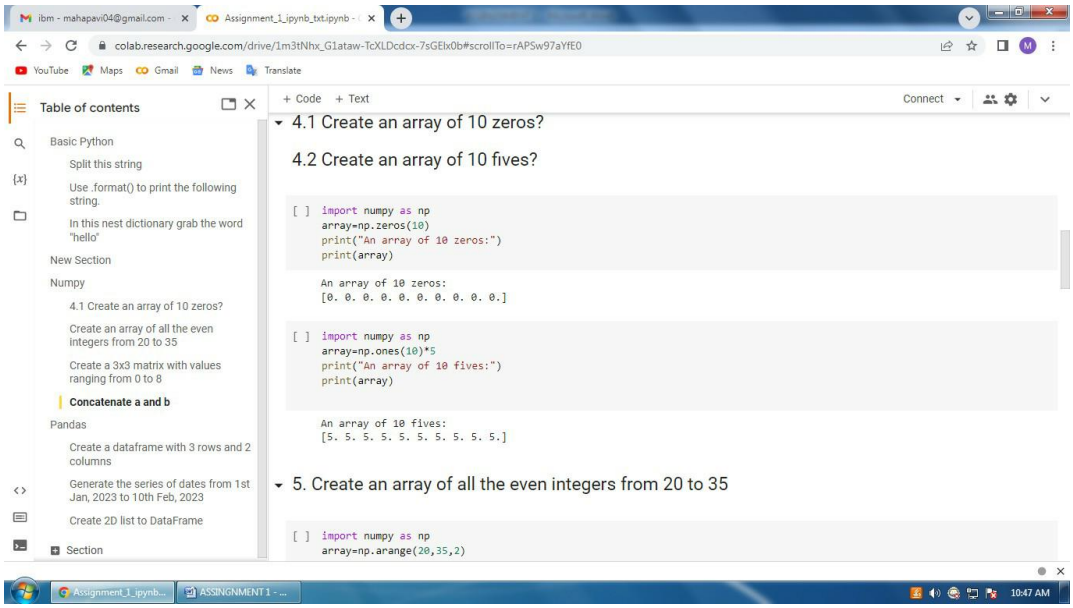
```
import numpy as np
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
```

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

```
4.2 Solution
```

```
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.]
```



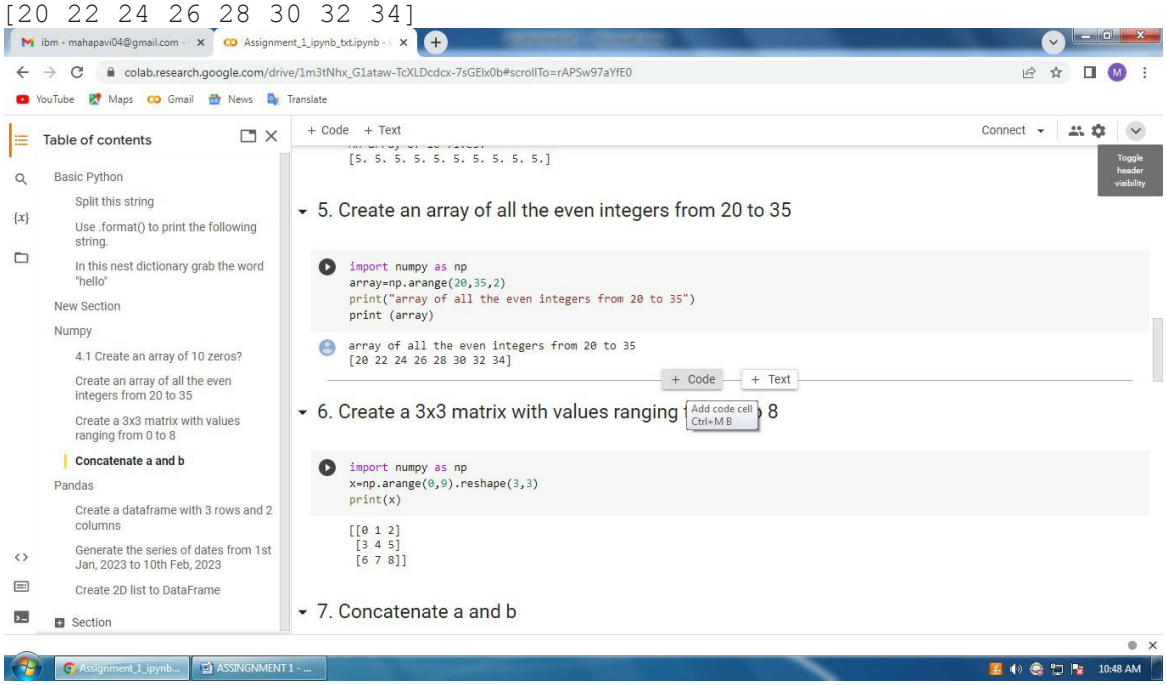
Question-5

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

Solutin:

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

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



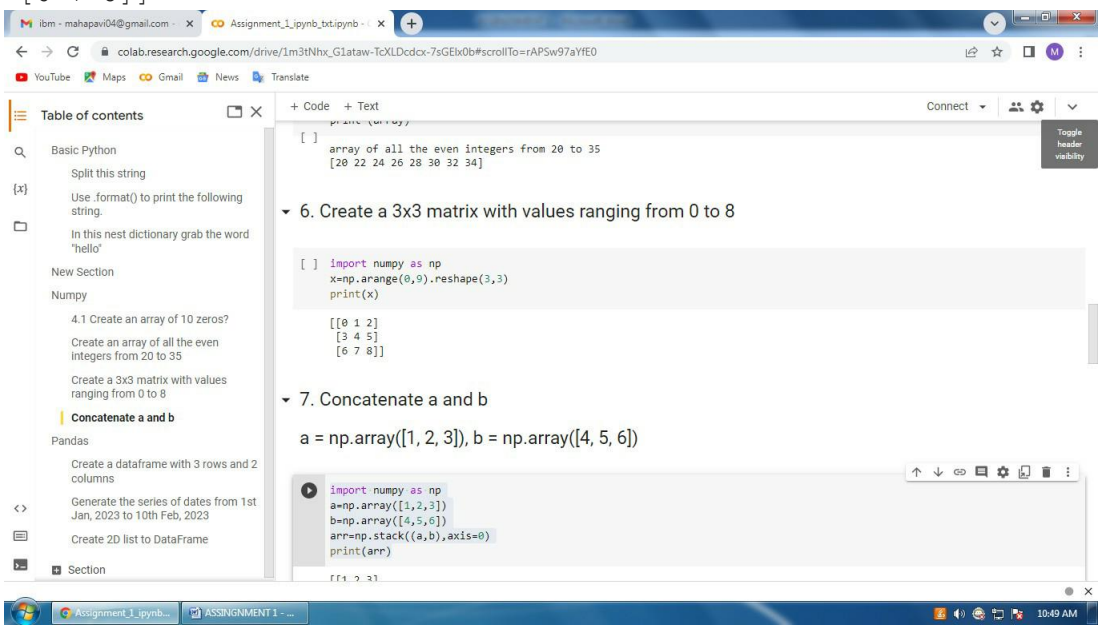
Question -6

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

Solution:

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

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



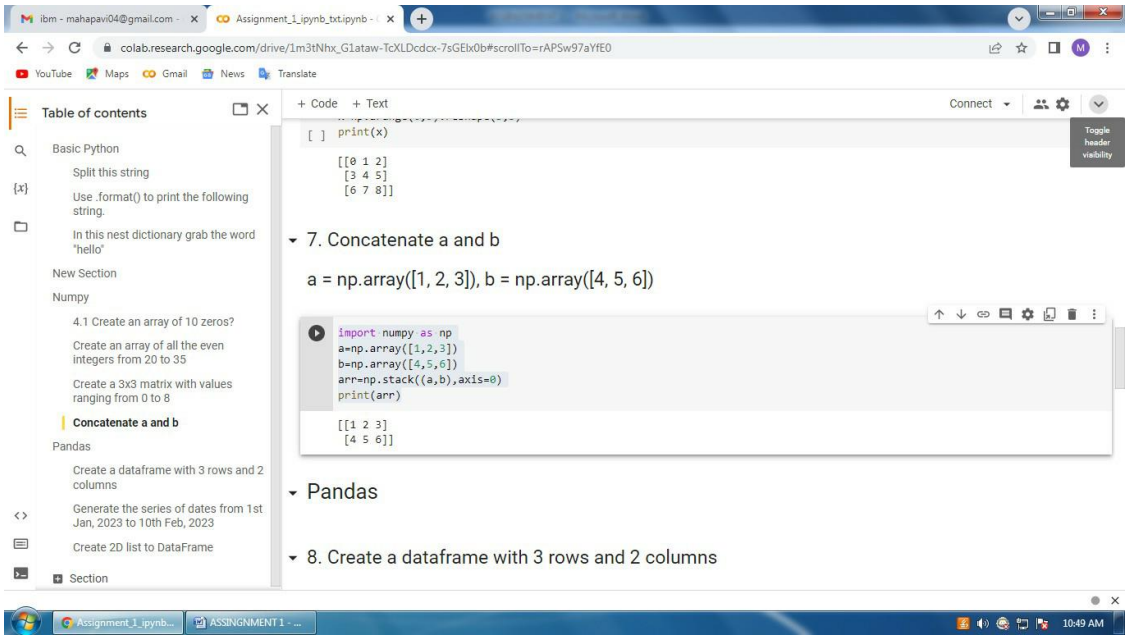
Question-7

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])
arr=np.stack((a,b),axis=0)
print(arr)
```



Pandas

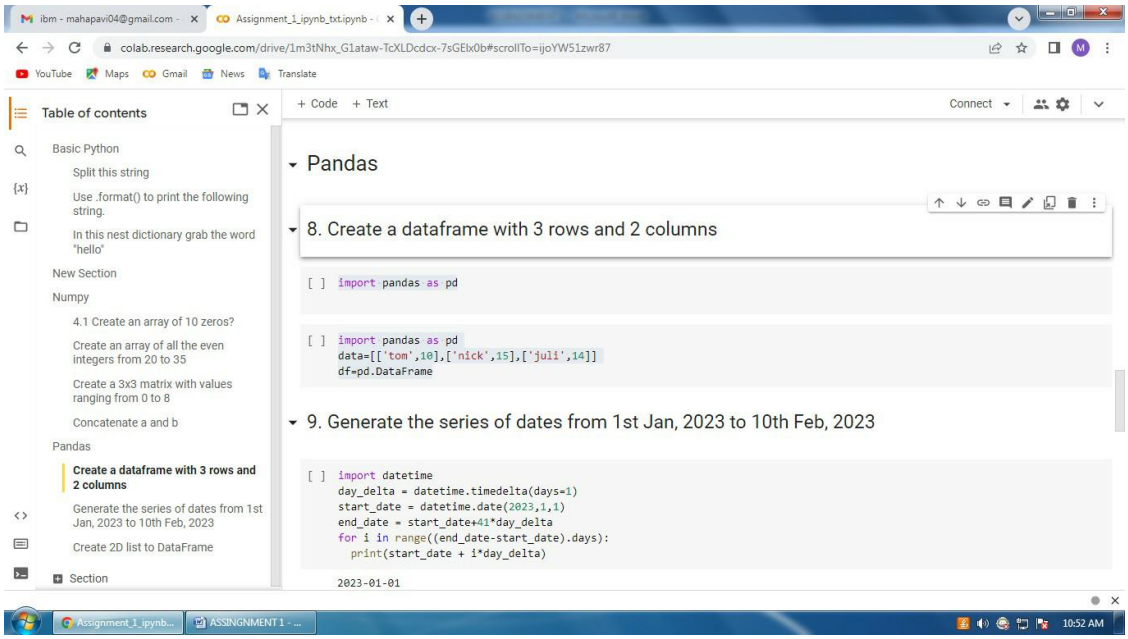
Question-8

Create a dataframe with 3 rows and 2 columns

```
import pandas as pd
```

Solution:

```
import pandas as pd
data=[['tom',10],['nick',15],['juli',14]]
df=pd.DataFrame
```



Question-9

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

Solution:

```
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

2023-01-18

2023-01-19

2023-01-20

2023-01-21

2023-01-22

2023-01-23

2023-01-24

2023-01-25

2023-01-26

2023-01-27

2023-01-28

2023-01-29

2023-01-30

2023-01-31

2023-02-01

2023-02-02

2023-02-03

2023-02-04

2023-02-05

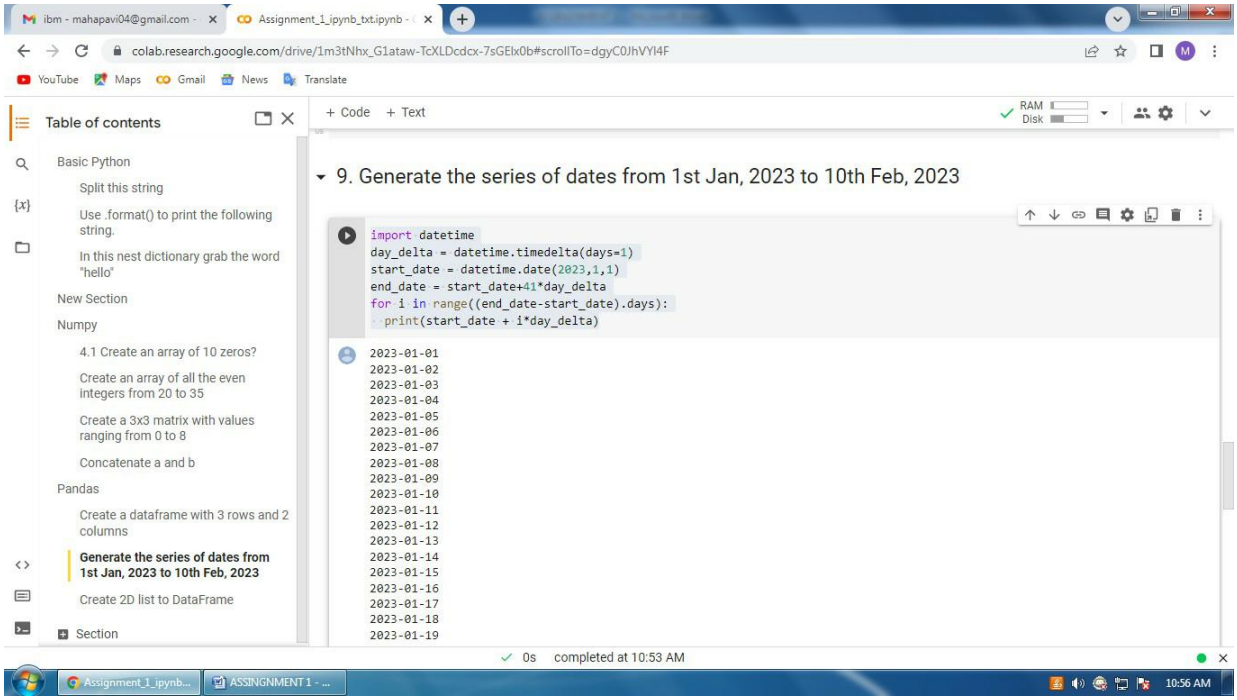
2023-02-06

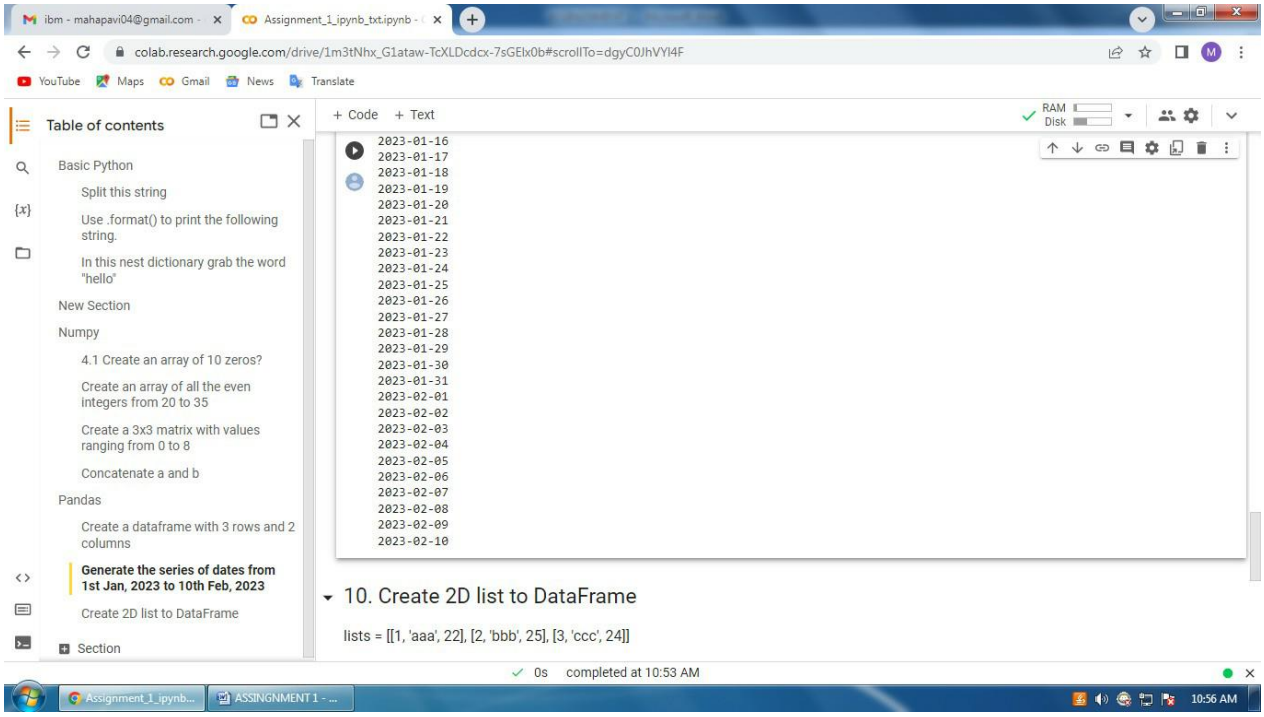
2023-02-07

2023-02-08

2023-02-09

2023-02-10





Question -10

Create 2D list to DataFrame

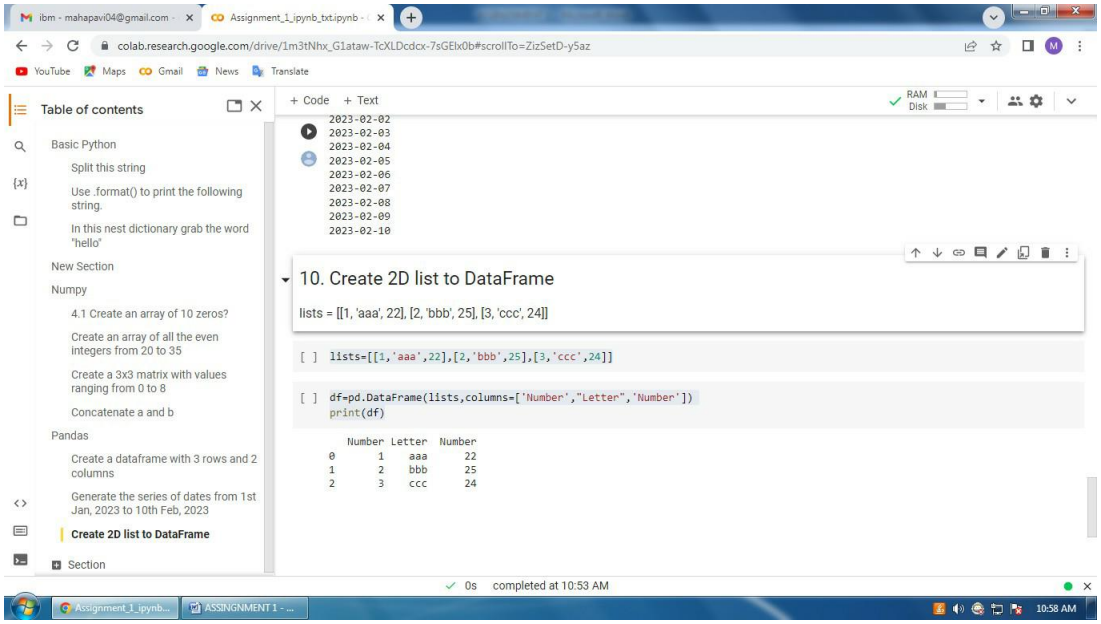
lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]

solution:

```
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
```


ibm - mahapavi04@gmail.com
Assignment_1_ipynb_txt.ipynb
colab.research.google.com/drive/1m3tNhx_G1ataw-TcXLDcdcx-7sGEIx0b#scrollTo=ZizSetD-y5az
YouTube
Maps
Gmail
News
Translate
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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]]
[ ] 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
0s completed at 10:53 AM
Assignment_1_ipynb...
ASSINGNMENT 1 - ...
10:58 AM