

In [1]:

```
### Externship assignment 1
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```

In [2]:

```
# 1. Assign your Name to variable name and Age to variable age.
# Make a Python program that prints your name and age.
```

In [3]:

```
name = 'Selva'
age = 22
```

In [4]:

```
print ('i am ', name, 'aged', age)
```

```
i am Selva aged 22
```

In [5]:

```
# 2. X="Datascience is used to extract meaningful insights."
# Split the string
```

In [6]:

```
X="Datascience is used to extract meaningful insights."
X.split()
```

Out[6]:

```
['Datascience', 'is', 'used', 'to', 'extract', 'meaningful', 'insights.']
```

In [7]:

```
# 3. Make a function that gives multiplication of two numbers
```

In [11]:

```
def mult(a,b):
    res = a * b
    return res
print (mult(2,4))
```

```
8
```

In [12]:

```
# 4. Create a Dictionary of 5 States with their capitals.
# also print the keys and values.
```

In [13]:

```
dict={
'Chennai':'Tamil Nadu',
'Amaravati':'Andhra Pradesh',
'Thiruvananthapuram':'Kerala',
'Hyderabad':'Telengana',
'Bengaluru':'Karnataka'}
#Printing the Keys and Values
print(dict)
```

```
{'Chennai': 'Tamil Nadu', 'Amaravati': 'Andhra Pradesh', 'Thiruvananthapuram': 'Kerala', 'Hyderabad': 'Telengana', 'Bengaluru': 'Karnataka'}
```

In [14]:

```
# 5. Create a List of 1000 numbers using range function.
```

In [16]:

```
#Creating the List
list=range(1000)
for n in list:
    print(n)
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
~
```

In [17]:

```
# 6. Create an identity matrix of dimension 4 by 4
```

In [18]:

```
import numpy as np
Identity_Matrix=np.identity(4)
print(Identity_Matrix)
```

```
[[1. 0. 0. 0.]
 [0. 1. 0. 0.]
 [0. 0. 1. 0.]
 [0. 0. 0. 1.]]
```

In [19]:

```
# 7. Create a 3x3 matrix with values ranging from 1 to 9
```

In [20]:

```
matrix=np.arange(1,10).reshape(3,3)  
print(matrix)
```

```
[[1 2 3]  
 [4 5 6]  
 [7 8 9]]
```

In [21]:

```
# 8. Create 2 similar dimensional array and perform sum on them.
```

In [22]:

```
arr_1=np.array([10, 20, 30, 40, 50])  
arr_2=np.array([60, 70, 80, 90, 100])  
#Performing addition  
Answer=np.add(arr_1, arr_2)  
print(Answer)
```

```
[ 70  90 110 130 150]
```

In [23]:

```
# 9. Generate the series of dates from 1st Feb, 2023 to  
# 1st March, 2023 (both inclusive)
```

In [25]:

```
from datetime import datetime, timedelta
#Inputing the Start and End Dates
start=datetime(2023, 2, 1)
end=datetime(2023, 3, 1)

current=start
while current<=end:
    print(current.strftime('%d-%m-%Y'))
    current+=timedelta(days=1)
```

01-02-2023
02-02-2023
03-02-2023
04-02-2023
05-02-2023
06-02-2023
07-02-2023
08-02-2023
09-02-2023
10-02-2023
11-02-2023
12-02-2023
13-02-2023
14-02-2023
15-02-2023
16-02-2023
17-02-2023
18-02-2023
19-02-2023
20-02-2023
21-02-2023
22-02-2023
23-02-2023
24-02-2023
25-02-2023
26-02-2023
27-02-2023
28-02-2023
01-03-2023

In [26]:

```
# 10. Given a dictionary, convert it into corresponding  
# dataframe and display it dictionary = {'Brand':  
# ['Maruti', 'Renault', 'Hyndai'], 'Sales' : [250, 200, 240]}
```

In [27]:

```
import pandas as pd
dictionary={
    'Brand':['Maruti', 'Renault', 'Hyundai'],
    'Sales':[250, 200, 240]
}
#Converting the dictionary to Data Frame
df=pd.DataFrame(dictionary)
print(df)
```

	Brand	Sales
0	Maruti	250
1	Renault	200
2	Hyundai	240