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TASK 1

1. Install Jupyter notebook and run the first program and share the screenshot of the output.

In [2]:

```
a = 2
b = 2.5
c = 'ABC'
print(a,type(a))
print(b,type(b))
print(c,type(c))
```

```
2 <class 'int'>
2.5 <class 'float'>
ABC <class 'str'>
```

2. Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line.

In [3]:

```
for x in range(2000, 3200+1):
    if (x%7 == 0) and (x%5 != 0):
        print(x, end=',')
```

```
2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,211
4,2121,2128,2142,2149,2156,2163,2177,2184,2191,2198,2212,2219,2226,2
233,2247,2254,2261,2268,2282,2289,2296,2303,2317,2324,2331,2338,235
2,2359,2366,2373,2387,2394,2401,2408,2422,2429,2436,2443,2457,2464,2
471,2478,2492,2499,2506,2513,2527,2534,2541,2548,2562,2569,2576,258
3,2597,2604,2611,2618,2632,2639,2646,2653,2667,2674,2681,2688,2702,2
709,2716,2723,2737,2744,2751,2758,2772,2779,2786,2793,2807,2814,282
1,2828,2842,2849,2856,2863,2877,2884,2891,2898,2912,2919,2926,2933,2
947,2954,2961,2968,2982,2989,2996,3003,3017,3024,3031,3038,3052,305
9,3066,3073,3087,3094,3101,3108,3122,3129,3136,3143,3157,3164,3171,3
178,3192,3199,
```

3. Write a Python program to accept the user's first and last name and then getting them printed in the the reverse order with a space between first name and last name.

In [4]:

```
fname = input('Enter First name : ')
lname = input('Enter Last name : ')
print(lname + ' ' + fname )
```

```
Enter First name : Nooras Fatima
Enter Last name : Ansari
Ansari Nooras Fatima
```

In [7]:

```
fname = input('Enter first name : ')
lname = input('Enter Last name : ')
fname = fname[::-1]
lname = lname[::-1]
print(lname + ' ' + fname )
```

```
Enter first name : Nooras Fatima
Enter Last name : Ansari
irasnA amitaF sarooN
```

4. Write a Python program to find the volume of a sphere with diameter 12 cm. Formula: V=4/3 π r 3

In [8]:

```
pi = 3.14
r = 12/2
print('Volume : ', (4/3)*pi*(r**3))
```

```
Volume :  904.3199999999999
```

TASK 2

1. Write a program which accepts a sequence of comma-separated numbers from console and generate a list.

In [13]:

```
seq = list(map(int, input().split(',')))
```

```
1,23,5,6,5
```

In [14]:

```
seq
```

Out[14]:

```
[1, 23, 5, 6, 5]
```

2. Create the below pattern using nested for loop in Python.

In [23]:

```
for x in range(1,6):
    for y in range(x):
        print('*', end='')
    print()
for x in range(4, 0, -1):
    for y in range(x):
        print('*', end='')
    print()
```

```
*
**
***
****
*****
****
***
**
*
```

3. Write a Python program to reverse a word after accepting the input from the user.

In [1]:

```
n = input('Enter word : ')
n = n[::-1]
print('Reverse String : ', n)
```

```
Enter word : AcadGild
Reverse String :  dliGdacA
```

4. Write a Python Program to print the given string in the format specified in the sample output. WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens

In [4]:

```
print("WE, THE PEOPLE OF INDIA, \n\thaving solemnly resolved to constitute India into a SOVEREIGN,! \n\t\tSOCIALIST, SECULAR, DEMOCRATIC REPUBLIC \n\t\t and to secure to all its citizens")
```

```
WE, THE PEOPLE OF INDIA,
        having solemnly resolved to constitute India into a SOVEREIG
N,!
                SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC
                 and to secure to all its citizens
```