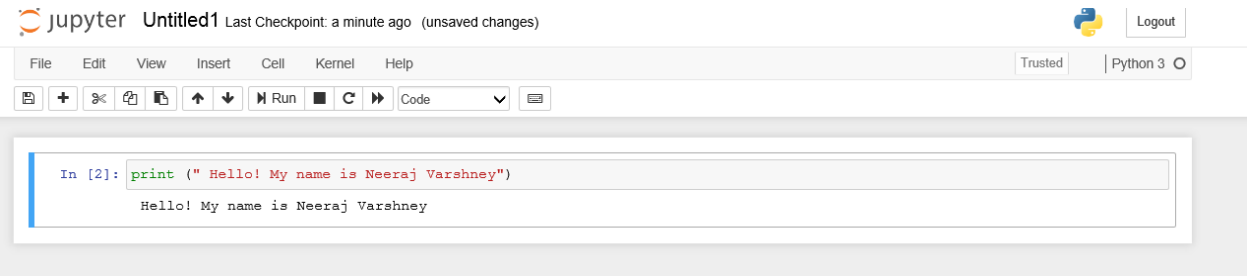
Assignment 1

Task 1:

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



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.

```
a= []
for i in range(2000,3201):
    if (i % 7==0) and (i % 5 !=0):
        a.append(str(i))
print(','.join(a))
```

```
: a= []
  for i in range(2000,3201):
      if (i % 7==0) and (i % 5 !=0):
          a.append(str(i))
  print(','.join(a))
```

```
2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,2114,2121,2128,2142,2149,2156,2163,2177,2184,2191,21
98,2212,2219,2226,2233,2247,2254,2261,2268,2282,2289,2296,2303,2317,2324,2331,2338,2352,2359,2366,2373,2387,2394,240
1,2408,2422,2429,2436,2443,2457,2464,2471,2478,2492,2499,2506,2513,2527,2534,2541,2548,2562,2569,2576,2583,2597,2604,
2611,2618,2632,2639,2646,2653,2667,2674,2681,2688,2702,2709,2716,2723,2737,2744,2751,2758,2772,2779,2786,2793,2807,28
14,2821,2828,2842,2849,2856,2863,2877,2884,2891,2898,2912,2919,2926,2933,2947,2954,2961,2968,2982,2989,2996,3003,301
7,3024,3031,3038,3052,3059,3066,3073,3087,3094,3101,3108,3122,3129,3136,3143,3157,3164,3171,3178,3192,3199
```

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

```
a= input("Enter first name: ")
b= input("Enter last name: ")
c= b + ' ' + a
c
```

```
In [9]: a= input("Enter first name: ")
        b= input("Enter last name: ")
        c= b + ' ' + a
        c

        Enter first name: Neeraj
        Enter last name: Varshney

Out[9]: 'Varshney Neeraj'
```

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

d= 12
r= d/2
*Volume = (4/3)*3.14*(r**3)*
print("Volume of Sphere having diameter",d,"cm is :",Volume)

```
In [7]: d= 12
        r= d/2
        Volume = (4/3)*3.14*(r**3)
        print("Volume of Sphere having diameter",d,"cm is :",Volume)

        Volume of Sphere having diameter 12 cm is : 904.3199999999999
```

Task 2:

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

a= input("Enter 5 numbers: ")
print(a.split(','))

```
In [4]: a= input("Enter 5 numbers: ")
        print(a.split(','))

        Enter 5 numbers: 10,20,50,60,8
        ['10', '20', '50', '60', '8']
```

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

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

a = int(input("Enter the number of rows "))

for i in range(0,a):

for j in range(0,i+1):

print("", end=" ")*

print(" ")

for i in range(a,0,-1):

for j in range(0,i-1):

print("", end = " ")*

print(" ")

```
a = int(input("Enter the number of rows "))
for i in range(0,a):
    for j in range(0,i+1):
        print("*", end=" ")
    print(" ")

for i in range(a,0,-1):
    for j in range(0,i-1):
        print("*", end = " ")
    print(" ")
```

```
Enter the number of rows 5
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

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

Sample Output:

Input word: AcadGild

Output: dilGdacA

a= input("Enter any word: ")

a[::-1]

```
: a= input("Enter any word: ")
  a[::-1]
```

```
Enter any word: AcadGild
```

```
: '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

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

```
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 SOVEREIGN,!
                SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC
                 and to secure to all its citizens
```