Assignment 1

Task 1

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

```
In [ ]:  Not able to click on "LINK".
```

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 [11]:  """
          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 sing
          le line.
          """

          def task_2():
              output=[]
              for i in range(2000, 3201):
                  if i % 7 == 0 and i % 5 != 0:
                      output.append(str(i))

              print (','.join(output))


          if __name__ == '__main__':
              task_2()
```

```
2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,2114,2121,21
28,2142,2149,2156,2163,2177,2184,2191,2198,2212,2219,2226,2233,2247,2254,226
1,2268,2282,2289,2296,2303,2317,2324,2331,2338,2352,2359,2366,2373,2387,2394,
2401,2408,2422,2429,2436,2443,2457,2464,2471,2478,2492,2499,2506,2513,2527,25
34,2541,2548,2562,2569,2576,2583,2597,2604,2611,2618,2632,2639,2646,2653,266
7,2674,2681,2688,2702,2709,2716,2723,2737,2744,2751,2758,2772,2779,2786,2793,
2807,2814,2821,2828,2842,2849,2856,2863,2877,2884,2891,2898,2912,2919,2926,29
33,2947,2954,2961,2968,2982,2989,2996,3003,3017,3024,3031,3038,3052,3059,306
6,3073,3087,3094,3101,3108,3122,3129,3136,3143,3157,3164,3171,3178,3192,3199
```

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

```
In [5]:  """
         Write a Python program to accept the user's first and last name and then getti
         ng
         them printed in the the reverse order with a space between first name and last
         name.
         """

         if __name__ == '__main__':
             first_name = input("Enter User's First Name: ")
             last_name = input("Enter User's Last Name: ")
             print('{} {}'.format(last_name, first_name))
```

```
Enter User's First Name: Jagdish
Enter User's Last Name: Toksiya
Toksiya Jagdish
```

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

```
In [6]:  """
         Write a Python program to find the volume of a sphere with diameter 12 cm.

         Formula: V=4/3 * π * r 3
         """

         import math

         def volume_of_sphere(diameter):
             '''
                 This Method Calculates Volume of a Sphere.
                 Parameter(s):
                 - diameter = Diameter of a Sphere
                 Return: Volume round up to 2 decimal point
             '''
             radius = diameter/2
             vol = (4/3) * math.pi * (radius**3)
             return round(vol,2)


         if __name__ == '__main__':
             output = volume_of_sphere(12)
             print('Volume of Sphere having Diameter 12: {}'.format(output))
```

```
Volume of Sphere having Diameter 12: 904.78
```

Task 2

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

In [7]:
```python
"""
Write a program which accepts a sequence of comma-separated numbers from conso
le and generate a list.
"""

if __name__ == '__main__':
    values = input('Enter numbers seperated by comma: ')
    ls_output = values.split(',')
    print(ls_output)
```

```
Enter numbers seperated by comma: 1,2,3,4,5,6,7
['1', '2', '3', '4', '5', '6', '7']
```

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

In [8]:
```python
"""
Create the below pattern using nested for loop in Python.
"""

def create_pattern():

    for i in range(1, 6):
        for j in range(i, i+1):
            print('*'*j)

    for i in range(4, 0, -1):
        for j in range(i, i+1):
            print('*'*j)


if __name__ == '__main__':
    create_pattern()
```

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

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

```
In [9]:    """
           Write a Python program to reverse a word after accepting the input from the us
           er.
           """

           if __name__ == '__main__':
               word = input("Enter any word: ")
               print(word[::-1])
```

```
Enter any word: AcadGild
dliGdacA
```

4. Write a Python Program to print the given string in the format specified in the sample output.

```
In [12]:   """
           Write a Python Program to print the given string in the format specified in th
           e 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 c
           itizens

           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
           """

           if __name__ == '__main__':
               str_input = 'WE, THE PEOPLE OF INDIA,{}having solemnly resolved to constit
           ute India into a SOVEREIGN,{}SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC{}and to s
           ecure to all its citizens{}'
               print(str_input.format('\n\t', '!\n\t\t', '\n\t\t', ''))
```

```
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
```