Assignment -1

1. 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.

```python
l =list(range(2000,3201))
m= []
for i in l:
    if (i%7==0 and i%5!=0):
        m.append(i)
print(m)
```

```
[2002, 2009, 2016, 2023, 2037, 2044, 2051, 2058, 2072, 2079, 2086, 2093, 2107, 2114, 2121, 2128, 2142, 2149, 2156, 2163, 2177,
2184, 2191, 2198, 2212, 2219, 2226, 2233, 2247, 2254, 2261, 2268, 2282, 2289, 2296, 2303, 2317, 2324, 2331, 2338, 2352, 2359, 2
366, 2373, 2387, 2394, 2401, 2408, 2422, 2429, 2436, 2443, 2457, 2464, 2471, 2478, 2492, 2499, 2506, 2513, 2527, 2534, 2541, 25
48, 2562, 2569, 2576, 2583, 2597, 2604, 2611, 2618, 2632, 2639, 2646, 2653, 2667, 2674, 2681, 2688, 2702, 2709, 2716, 2723, 273
7, 2744, 2751, 2758, 2772, 2779, 2786, 2793, 2807, 2814, 2821, 2828, 2842, 2849, 2856, 2863, 2877, 2884, 2891, 2898, 2912, 291
9, 2926, 2933, 2947, 2954, 2961, 2968, 2982, 2989, 2996, 3003, 3017, 3024, 3031, 3038, 3052, 3059, 3066, 3073, 3087, 3094, 310
1, 3108, 3122, 3129, 3136, 3143, 3157, 3164, 3171, 3178, 3192, 3199]
```

2. 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.

```python
fname = str(input("Enter first name :")) #Enter first Name
lname = str(input("Enter last Name  :")) #Enter last Name
fullname = fname +" "+ lname
print("reverse name    :",fullname[::-1]) #reverse using scale concept
```

```
Enter first name :Raish
Enter last Name  :Alam
reverse name    : malA hsiaR
```

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

```python
diameter =12 #given diameter
radius =diameter/2 #radius
pi=22/7 #pi
volume = (4/3) * (pi * radius ** 3) #Volume of sphere
print("Volume of Sphere: ", round(volume,2))
```

```
Volume of Sphere:  905.14
```

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

```python
value = input("enter comma seprated numbers ")
l = list(value)
m=[]
for i in l[::2]: #reading alternate number except comma (,)
    m.append(int(i))
print(m)
```

```
enter comma seprated numbers 1,2,3,2,1,5
[1, 2, 3, 2, 1, 5]
```

5. Create the below pattern using nested for loop in Python.
```
*
* *
 * * *
 * * * *
 * * * * *
 * * * *
 * * *
 * *
 *
```

```python
for i in range(0, 5):
    for j in range(0, i + 1): #ascending loop print * from 1 to 5
        print("*", end=' ')
    print("\r")

for i in range(5, 0, -1):
    for j in range(0, i - 1): #descending loop print * from 4 to 1
        print("*", end=' ')
    print("\r")    |
```
```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

6   . Write a Python program to reverse a word after accepting the input from the user.
Input word: AcadGild   Output: dliGdacA

```python
val= str(input("Enter the value :")) #Enter AcadGild
print(f"Reverse Value of {val} is :", val[::-1])
```
```
Enter the value :AcadGild
Reverse Value of AcadGild is : dliGdacA
```

7. 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
```

```python
print('WE,THE PEOPLE OF INDIA,','\n',
    '\t','having solemnly resolved to constitute India into a SOVEREIGN,','!','\n'
    '\t','\t', 'SOCIALIST, 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
```