

# Assignment-1

## Task 1

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

```
In [2]: print('Welcome To ML using Python')
```

Welcome To ML using Python

**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 [1]: number_list = []  
for number in range(2000, 3201):  
    if number % 7 == 0 and number % 5 != 0:  
        number_list.append(number)  
print(number_list)
```

```
[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, 2  
226, 2233, 2247, 2254, 2261, 2268, 2282, 2289, 2296, 2303, 2317, 2324, 2331, 23  
38, 2352, 2359, 2366, 2373, 2387, 2394, 2401, 2408, 2422, 2429, 2436, 2443, 245  
7, 2464, 2471, 2478, 2492, 2499, 2506, 2513, 2527, 2534, 2541, 2548, 2562, 256  
9, 2576, 2583, 2597, 2604, 2611, 2618, 2632, 2639, 2646, 2653, 2667, 2674, 268  
1, 2688, 2702, 2709, 2716, 2723, 2737, 2744, 2751, 2758, 2772, 2779, 2786, 279  
3, 2807, 2814, 2821, 2828, 2842, 2849, 2856, 2863, 2877, 2884, 2891, 2898, 291  
2, 2919, 2926, 2933, 2947, 2954, 2961, 2968, 2982, 2989, 2996, 3003, 3017, 302  
4, 3031, 3038, 3052, 3059, 3066, 3073, 3087, 3094, 3101, 3108, 3122, 3129, 313  
6, 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**

```
In [3]: first_name = input('Enter First Name: ')
last_name = input('Enter Last Name: ')

name = '{} {}'.format(first_name, last_name)
name[::-1]
```

Enter First Name: Vijayakumar  
Enter Last Name: Chinnaiyan

Out[3]: 'nayiannihC ramukayajiV'

#### 4. Write a Python program to find the volume of a sphere with diameter 12 cm

```
In [4]: diameter = 12
π = 3.14
volume = (4/3) * π * (diameter**3)
print('Volume of sphere with diameter of 12 cm is ', volume)
```

Volume of sphere with diameter of 12 cm is 7234.5599999999995

## Task 2

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

```
In [5]: numbers = input('Enter list of numbers seperated by comma: ')
#numbers_lst = numbers.split(',')
numbers = [int(number) for number in numbers.split(',') if number.isnumeric()]
print(numbers)
```

Enter list of numbers seperated by comma: 30,34,vijay,45,67,34,89  
[30, 34, 45, 67, 34, 89]

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

```
In [7]: character = '*'

list_with_inner_list = list()
list_with_inner_list.append(list(range(1, 6)))
list_with_inner_list.append(list(range(4, 0, -1)))

for inner_list in list_with_inner_list:
    for list_item in inner_list:
        print( character * list_item)
```

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

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

```
In [0]: word = input('Input Word: ')
print('Output: ', word[::-1])
```

```
Input Word: Vijayakumar
Output: ramukayajiV
```

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

```
In [0]: sentence = 'WE, THE PEOPLE OF INDIA, \n\thaving solemnly resolved to constitute I
print(sentence)
```

```
WE, THE PEOPLE OF INDIA,
    having solemnly resolved to constitute India into a SOVEREIGN !,
        SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC
        and to secure to allits citizens
```