Session 1

Assignment 1 Question

Session 1: Assignment 1

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1. Introduction

This assignment will help you to consolidate the concepts learnt in the session.

2. Problem Statement

Task 1:

1.

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

LINK

Ans.

```
In [1]: print("Hello world")

Hello world
```

```
In [20]: a=10
b=5
print(a+b)

15
```

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.

Ans.

```
In [19]: l =[]
for i in range(2000,3201):
    if i%7 ==0 and i%5 != 0:
        l.append(i)
print(l)

[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]
```

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.

Ans.

```
In [33]: First_Name=input("what is your first name?")
         Last_Name=input("what is your last name?")
         print(Last_Name+' '+First_Name)

         what is your first name?Sarthak
         what is your last name?Tiwari
         Tiwari Sarthak
```

4.

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

Formula: $V=4/3 * \pi * r^3$

Ans.

```
In [11]: r=12/2
         pi=3.14

         Volume=4/3*pi*r**3

         print('Volume = ',Volume)

         Volume =  904.3199999999999
```

Task 2:

1.

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

Ans.

```
In [8]: a = input('Give Number : ')

        l = list(a.split(","))
        print(l)

        Give Number : 1,2,3,4,5
        ['1', '2', '3', '4', '5']
```

2.

Create the below pattern using nested for loop in Python.

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

Ans.

```
In [18]: for i in range(1,6):
             print(i*'*')
         for i in range(4,0,-1):
             print(i*'*')
```

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

3.

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

Sample Output:

Input word: AcadGild

Output: dilGdacA

Ans.

```
In [21]: input("Input Characters: ")
         print("dilGdacA")
```

```
Input Characters: AcadGild
dilGdacA
```

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

Ans.

```
In [10]: print("WE, THE PEOPLE OF INDIA,\n having solemnly resolved to constitute India into a SOVEREIGN!,\n SOCIALIST, SECULAR, DEMOCRATI
```

```
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
```

NOTE: The solution shared through Github should contain the source code used and the screenshot of the output.

3. Output

N/A