

In [2]:

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1  #1.Install Jupyter notebook and run the first program and share the screenshot
2
3  #Program to identify all divisibles of a number
4
5  print('Type a number of your choice')
6  Number=int(input())
7  Divisors =[]
8  denominators=range(1,Number+1)
9  for N in denominators:
10     if Number % N == 0:
11         Divisors.append(N)
12  print(Number,'is divisible by', Divisors)

```

Type a number of your choice

675

675 is divisible by [1, 3, 5, 9, 15, 25, 27, 45, 75, 135, 225, 675]

In [33]:

```

1  # 2.Write a program which will find all such numbers which are divisible by 7
2  # multiple of 5, between 2000 and 3200 (both included). The numbers obtained
3  # in a comma-separated sequence on a single line.
4
5  #We'll start with creating an empty list for getting the required output form
6  #considering range upto 3201 to include 3200 as part of range
7  #specifying x as the variable
8  #defining the criteria
9  #adding variable within list Y
10 #adding "," as per requirement in the problem for printing the results
11
12 Y=[]
13 range(2000,3201)
14 for x in range(2000,3201):
15     if (x%7==0 and x%5!=0):
16         Y.append(str(x))
17  print(','.join(Y))

```

2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,2114,2121,2128,2142,2149,2156,2163,2177,2184,2191,2198,2212,2219,2226,2233,2247,2254,2261,2268,2282,2289,2296,2303,2317,2324,2331,2338,2352,2359,2366,2373,2387,2394,2401,2408,2422,2429,2436,2443,2457,2464,2471,2478,2492,2499,2506,2513,2527,2534,2541,2548,2562,2569,2576,2583,2597,2604,2611,2618,2632,2639,2646,2653,2667,2674,2681,2688,2702,2709,2716,2723,2737,2744,2751,2758,2772,2779,2786,2793,2807,2814,2821,2828,2842,2849,2856,2863,2877,2884,2891,2898,2912,2919,2926,2933,2947,2954,2961,2968,2982,2989,2996,3003,3017,3024,3031,3038,3052,3059,3066,3073,3087,3094,3101,3108,3122,3129,3136,3143,3157,3164,3171,3178,3192,3199

In [26]:

```

1  #3. Write a Python program to accept the user's first and last name and then
2  # in the the reverse order with a space between first name and last name.
3  Firstname= input("Your first name is - ")
4  Lastname = input("Your last name is - ")
5  print ('Your name in reverse order is - ',Firstname[::-1],"",Lastname[::-1])

```

Your first name is - sachin

Your last name is - tendulkar

Your name in reverse order is - nihcas rakludnet

```
In [25]: 1 #4. Write a Python program to find the volume of a sphere with diameter 12 cm
2 # Formula:  $V = \frac{4}{3} * \pi * r^3$ 
3
4 # Program to find the volume of a sphere
5 #input box for diameter value
6 Diameter =(int(input('Please type the daimeter of the circle - ')))
7 #Explanation
8 print('We know the radius of circle = Daimeter/2')
9 Radius = Diameter/2
10 print('So the radius of the circle is - ',Radius)
11 print('Formula for Volume of circle =  $\frac{4}{3} * 3.14 * \text{Radius} * \text{Radius} * \text{Radius}$ ')
12 Volume =(4/3*3.14*Radius*Radius*Radius)
13 #Space before the final result
14 print('')
15 #round function used to round of the decimals
16 print ('Based on the input, the volume of circle is =', (round(Volume,2)), 'cm
```

Please type the daimeter of the circle - 8

We know the radius of circle = Daimeter/2

So the radius of the circle is - 4.0

Formula for Volume of circle = $\frac{4}{3} * 3.14 * \text{Radius} * \text{Radius} * \text{Radius}$

Based on the input, the volume of circle is = 267.95 cm