

## Assignment -1

### Python Programming

#### Question-1:

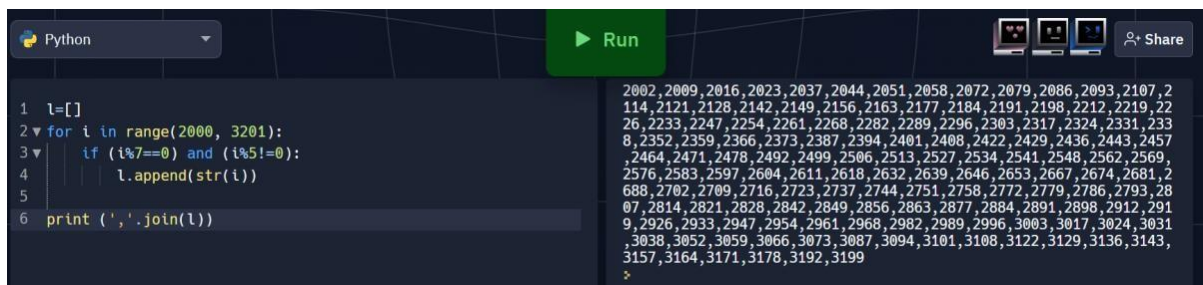
Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line.

#### Solution:

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

print(','.join(l))

#- .....-#
#- .....-#
```



The screenshot shows a Python IDE with a dark theme. On the left, the code editor contains the following code:

```
1 l=[]
2 for i in range(2000, 3201):
3     if (i%7==0) and (i%5!=0):
4         l.append(str(i))
5
6 print(','.join(l))
```

On the right, the output window displays a long list of numbers separated by commas, representing the numbers between 2000 and 3200 that are divisible by 7 but not by 5. The numbers are: 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.

#### Question-2:

With a given integral number n, write a program to generate a dictionary that contains (i, i\*i) such that i is an integral number between 1 and n (both included). and then the program should print the dictionary.

Suppose the following input is supplied to the program:

8

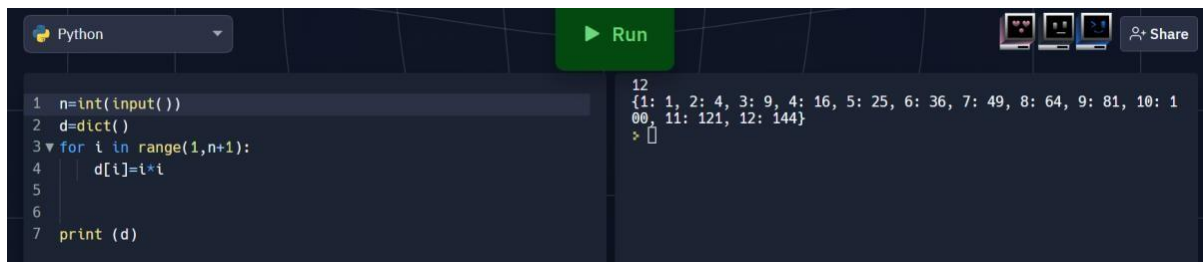
Then, the output should be:

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}

### Solution:

```
n=int(input())
d=dict()
for i in range(1,n+1):
    d[i]=i*i

print d
#- .....-#
#- .....-#
```



The screenshot shows a Python IDE interface. On the left, a code editor displays the following Python code:

```
1 n=int(input())
2 d=dict()
3 for i in range(1,n+1):
4     d[i]=i*i
5
6
7 print (d)
```

On the right, a green 'Run' button is visible. Below it, the output of the program is shown in a dark-themed console. The output is a dictionary with keys from 1 to 12 and their corresponding squares as values:

```
12
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144}
```

At the bottom of the output area, there is a prompt character '>' followed by an empty list '[]'.