

Assignment -1
Python Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

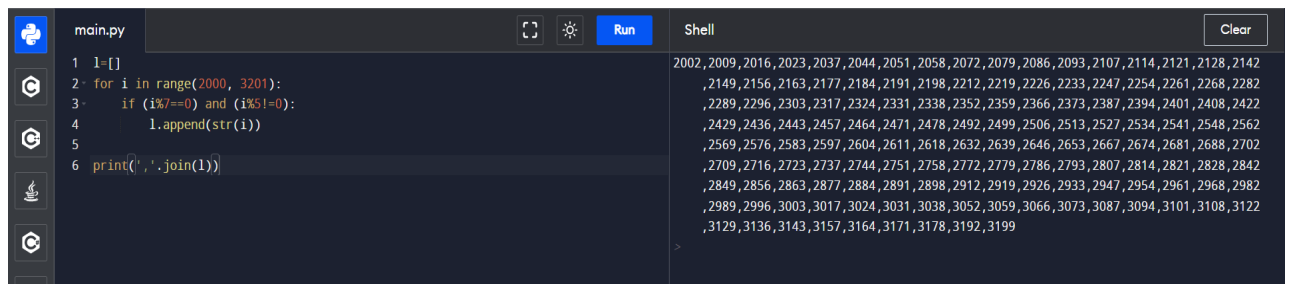
Question-1:

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))
```

A screenshot of a Python IDE interface. On the left, a file named 'main.py' is open, showing 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 'Shell' window displays the output of the program, which is a long comma-separated list of numbers from 2002 to 3199, specifically those divisible by 7 but not by 5. The output is: 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

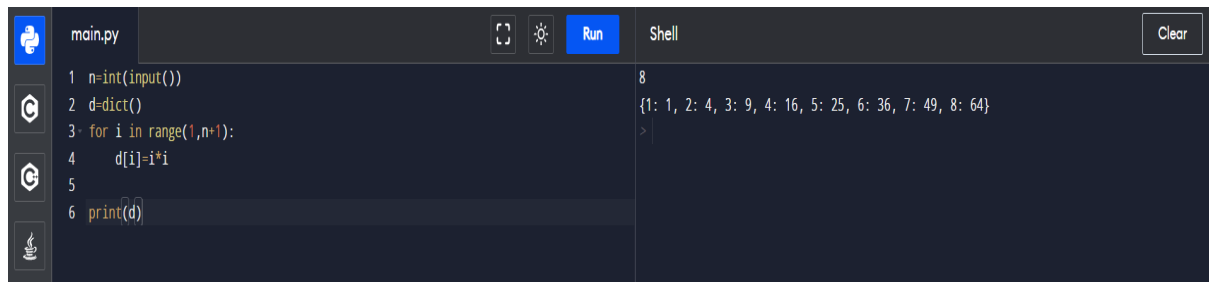
Then, the output should be:

{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)
n=int(input())
d=dict()
```

A screenshot of a Python IDE interface. On the left, there is a sidebar with icons for Python, a file explorer, a search bar, and a terminal. The main area is split into two panes. The left pane, titled 'main.py', contains 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 print(d)
```

The right pane, titled 'Shell', shows the output of the code execution. It displays the number '8' on the first line, followed by a dictionary representation '{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}' on the second line. A prompt character '>' is visible on the third line, indicating that the shell is ready for further input. A 'Run' button is located at the top of the main area, and a 'Clear' button is in the top right corner of the Shell pane.