

ASSIGNMENT-I

TECHNOLOGY- ARTIFICIAL INTELLIGENCE

DOMAIN- VirtualEye - Life Guard for Swimming Pools to Detect Active Drowning

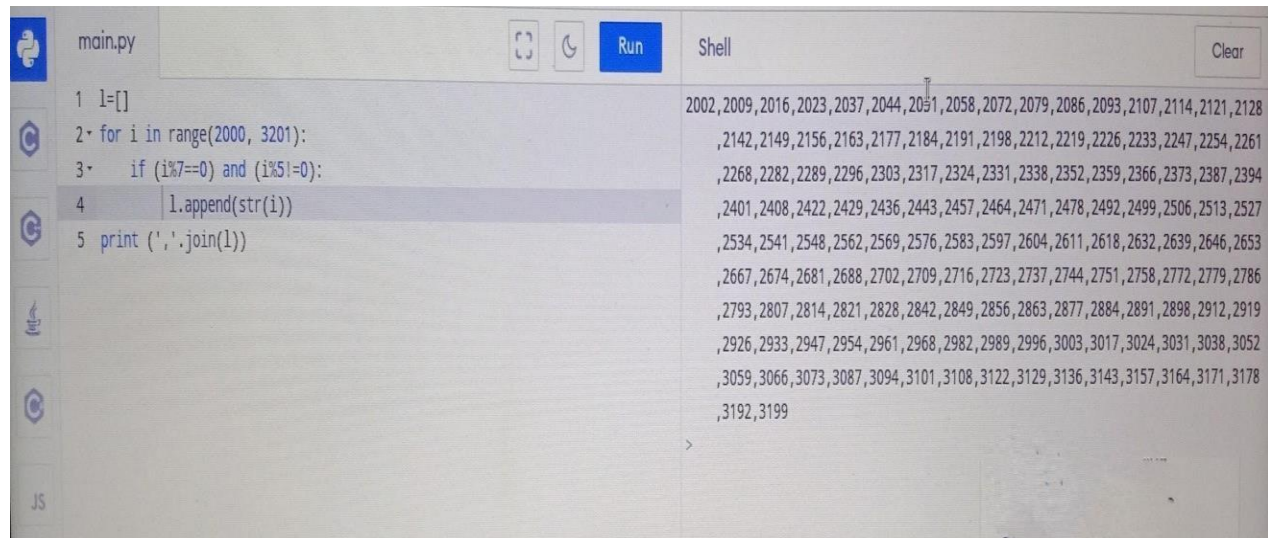
Question-1:

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))
```

OUTPUT



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

Shell

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

```
number = int(input("Type a number : "))
```

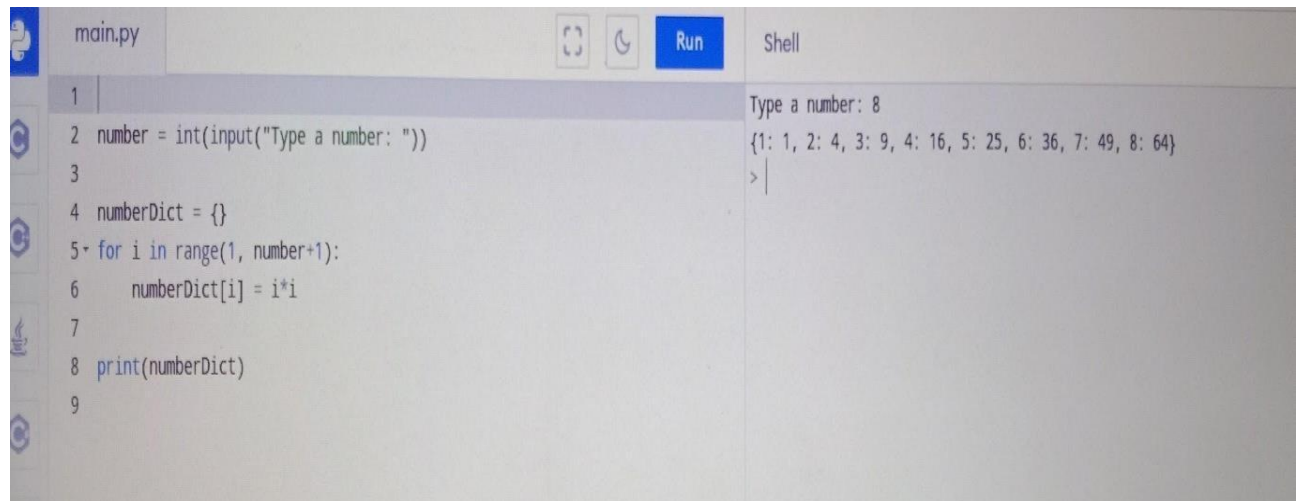
```
numberDict = { }
```

```
for i in range (1,number+1):
```

```
    numberDict[i] = i*i
```

```
print(numberDict)
```

OUTPUT



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is as follows:

```
1  
2 number = int(input("Type a number: "))  
3  
4 numberDict = {}  
5 for i in range(1, number+1):  
6     numberDict[i] = i*i  
7  
8 print(numberDict)  
9
```

The 'Run' button is visible above the code. The 'Shell' output pane on the right shows the following output:

```
Type a number: 8  
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}  
> |
```

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