ASSIGNMENT-I

TECHNOLOGY-ARTIFICIALINTELLIGENCE

DOMAIN-VirtualEye-LifeGuardforSwimmingPoolstoDetectActiveDrowning

Question-1:
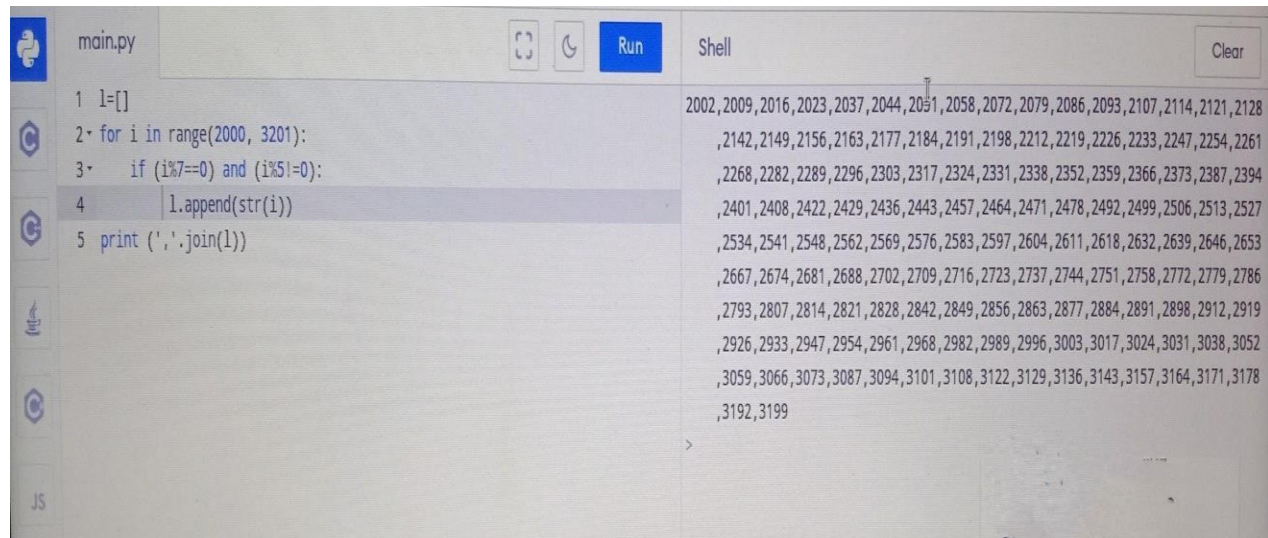
Writeaprogramwhichwillfindallsuchnumberswhichare divisible by 7 but are not a multiple of 5, between2000 and 3200 (both included). The numbers obtainedshould be printed in a comma-separated sequence on asingleline.

Solution:

```
l=[]
foriinrange(2000,3201):
    if(i%7==0)and(i%5!=0):l.append(str(i))
print(','.join(l))
```

OUTPUT

```
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 output:

```
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 is an integral number between 1 and n (both included). and then the program should print the dictionary.
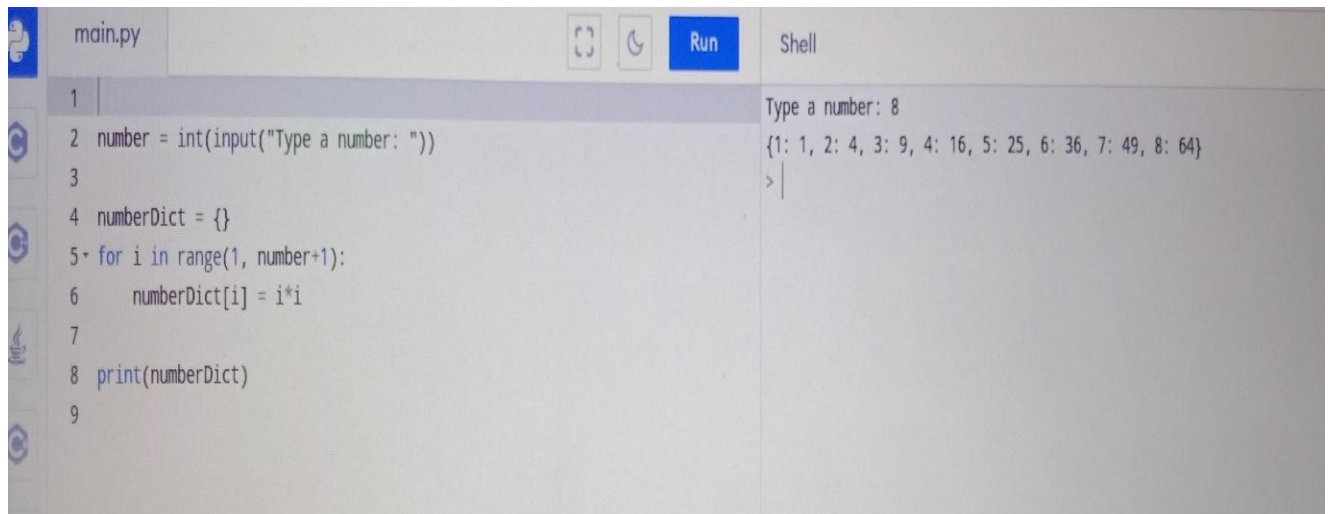
Suppose the following input is supplied to the program: 8 Then, the output should be:

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

Solution

```
number=int(input("Typeanumber:"))numberDict={

}
foriinrange(1,number+1):

    numberDict[i] =
i*iprint(numberDict)
```

OUTPUT


```
main.py                                    Run     Shell

1  |                                              Type a number: 8
2  number = int(input("Type a number: "))         {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}
3                                                  > |
4  numberDict = {}
5  for i in range(1, number+1):
6      numberDict[i] = i*i
7
8  print(numberDict)
9
```

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