

ASSIGNMENT-1

TECHNOLOGY: ARTIFICIAL INTELLIGENCE

DOMAIN: REAL-TIME COMMUNICATION SYSTEM POWERED
BY AI FOR SPECIALLY ABLED

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:

PROGRAM:

I

```
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))
6 |
```

OUTPUT:

```
2002, 2009, 2016, 2023, 2037, 2044, 2051, 2058, 2072, 2079, 2086, 2093, 2107, 2114, 21
21, 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, 2
373, 2387, 2394, 2401, 2408, 2422, 2429, 2436, 2443, 2457, 2464, 2471, 2478, 2492, 249
9, 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, 27
51, 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, 3
003, 3017, 3024, 3031, 3038, 3052, 3059, 3066, 3073, 3087, 3094, 3101, 3108, 3122, 312
9, 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}

PROGRAM:

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

OUTPUT:

```
Type a number: 8  
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}  
[Program finished]
```

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