

Assignment -1

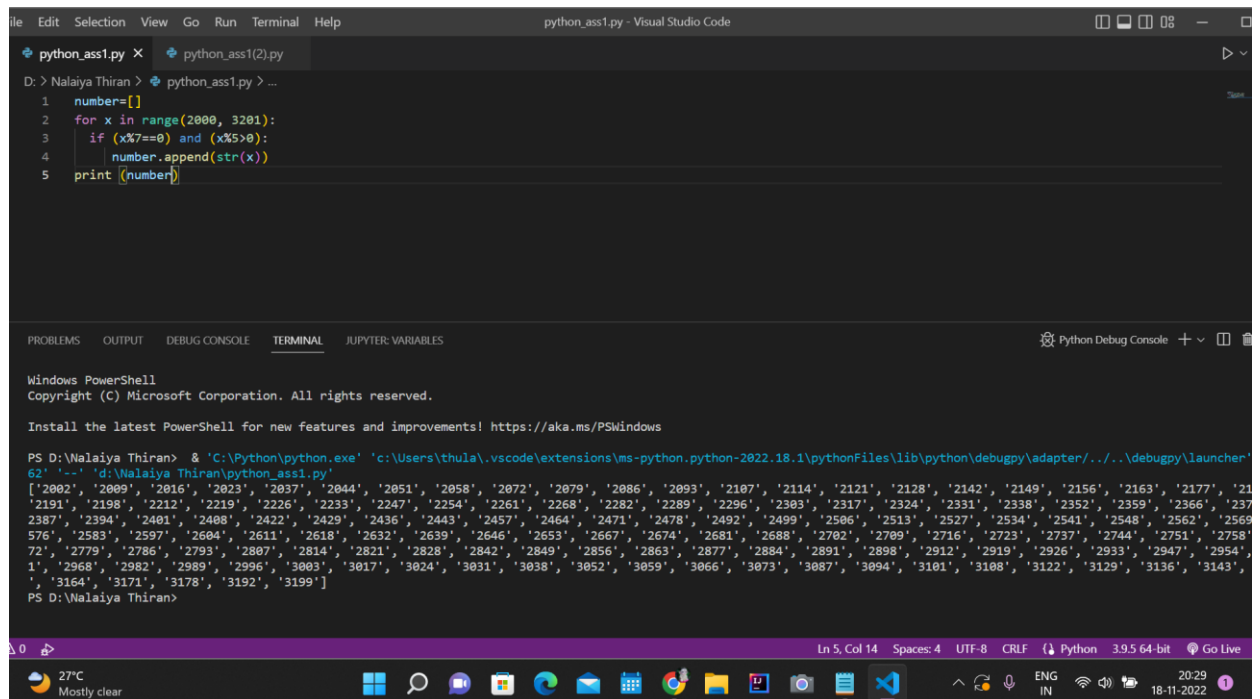
Python Programming

Assignment Date	23 September 2022
Student Name	THULASI V
Student Roll Number	312319205178
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:



```
python_ass1.py X python_ass1(2).py
D:\> Nalaiya Thiran > python_ass1.py > ...
1 number=[]
2 for x in range(2000, 3201):
3     if (x%7==0) and (x%5!=0):
4         number.append(str(x))
5 print(number)
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER VARIABLES
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\Nalaiya Thiran> & 'C:\Python\python.exe' 'c:\Users\thula\.vscode\extensions\ms-python.python-2022.18.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher'
62' '--' 'd:\Nalaiya Thiran\python_ass1.py'
['2002', '2009', '2016', '2023', '2037', '2044', '2051', '2058', '2072', '2079', '2086', '2093', '2107', '2114', '2121', '2128', '2142', '2149', '2156', '2163', '2177', '21
2191', '2198', '2212', '2219', '2226', '2233', '2247', '2254', '2261', '2268', '2282', '2289', '2296', '2303', '2317', '2324', '2331', '2338', '2352', '2359', '2366', '237
2387', '2394', '2401', '2408', '2422', '2429', '2436', '2443', '2457', '2464', '2471', '2478', '2492', '2499', '2506', '2513', '2527', '2534', '2541', '2548', '2562', '2569
576', '2583', '2597', '2604', '2611', '2618', '2632', '2639', '2646', '2653', '2667', '2674', '2681', '2688', '2702', '2709', '2716', '2723', '2737', '2744', '2751', '2758'
72', '2779', '2786', '2793', '2807', '2814', '2821', '2828', '2842', '2849', '2856', '2863', '2877', '2884', '2891', '2898', '2912', '2919', '2926', '2933', '2947', '2954',
1', '2968', '2982', '2989', '2996', '3003', '3017', '3024', '3031', '3038', '3052', '3059', '3066', '3073', '3087', '3094', '3101', '3108', '3122', '3129', '3136', '3143',
', '3164', '3171', '3178', '3192', '3199']
PS D:\Nalaiya Thiran>
```

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.

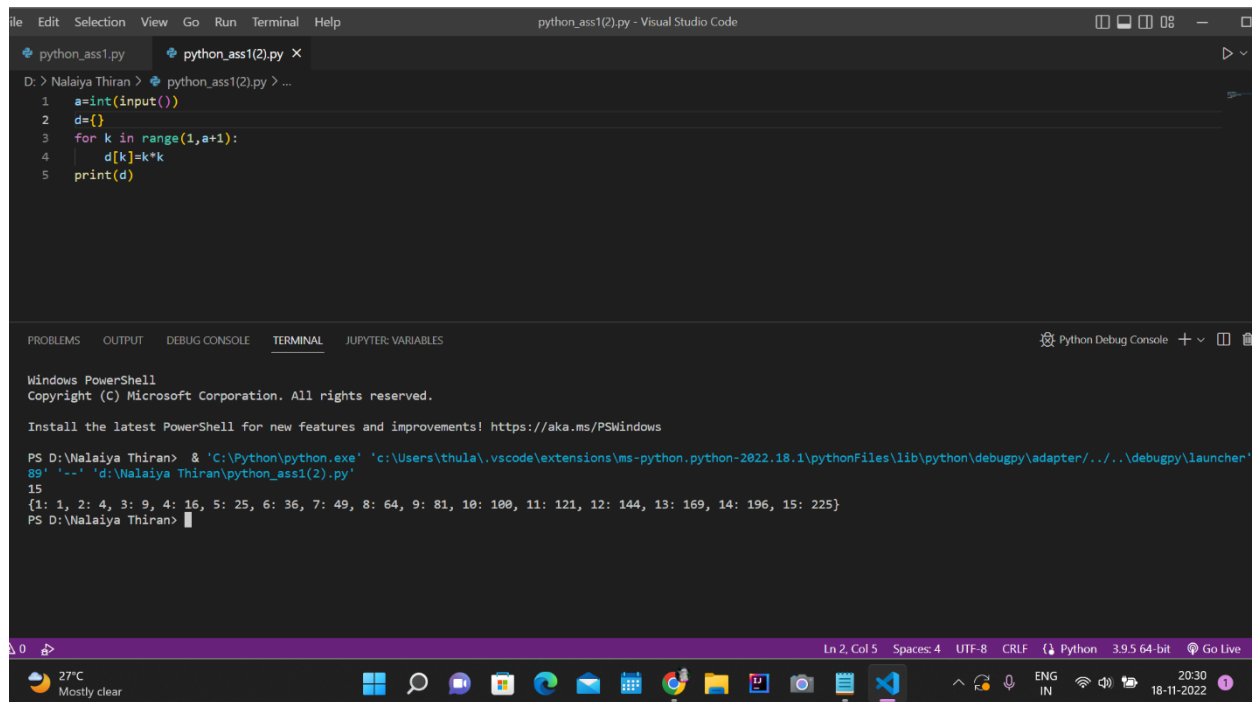
Suppose the following input is supplied to the program:

8

Then, the output should be:

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

Solution:



The screenshot shows the Visual Studio Code interface. The editor window displays a Python file named `python_ass1(2).py` with the following code:

```
1 a=int(input())
2 d={}
3 for k in range(1,a+1):
4     d[k]=k*k
5 print(d)
```

The terminal window at the bottom shows the execution of the script. It starts with a Windows PowerShell prompt, followed by the command to run the script using Python. The output is a dictionary containing squares of numbers from 1 to 15.

```
Windows PowerShell
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PS D:\Nalaiya Thiran> & 'C:\Python\python.exe' 'c:\Users\thula\.vscode\extensions\ms-python.python-2022.18.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher'
89' '--' 'd:\Nalaiya Thiran\python_ass1(2).py'
15
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225}
PS D:\Nalaiya Thiran>
```

The status bar at the bottom indicates the current line and column (Ln 2, Col 5), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), the Python version (3.9.5 64-bit), and the Go Live status.

