

Assignment -1

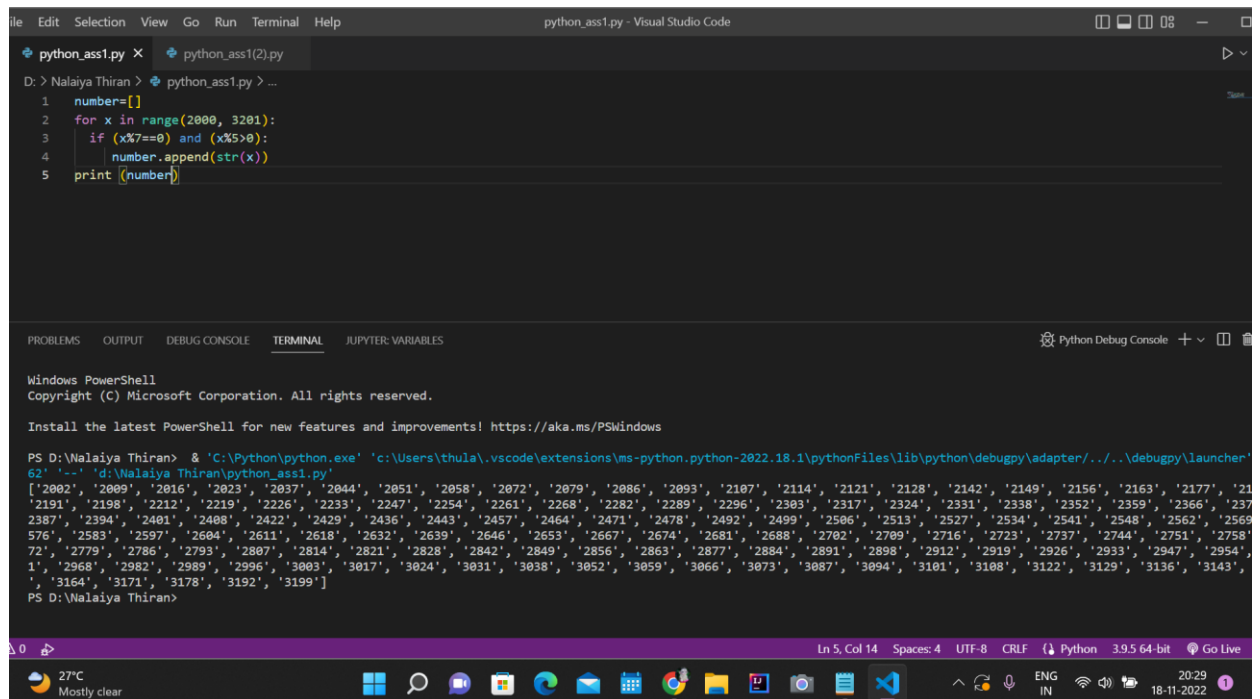
Python Programming

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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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.

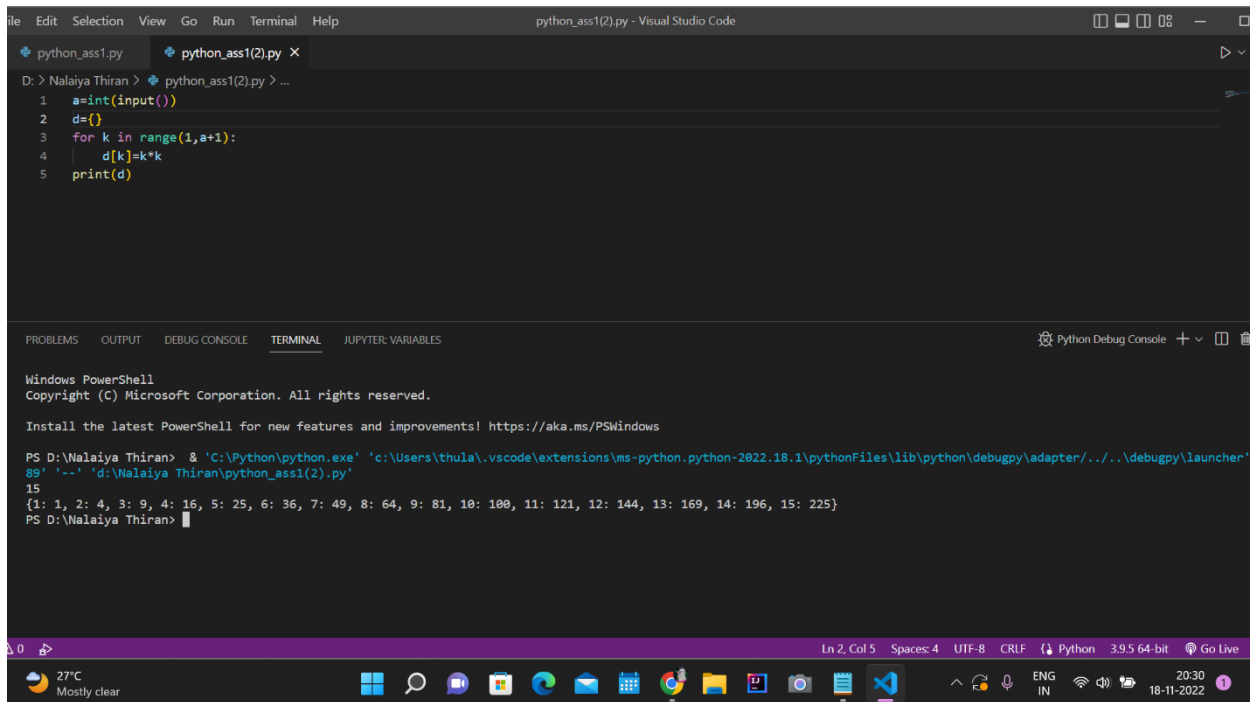
Suppose the following input is supplied to the program:

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 editor with a Python file named `python_ass1(2).py` open. The code in the file is as follows:

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

Below the editor, the TERMINAL panel is active, showing the execution of the script. The terminal output is:

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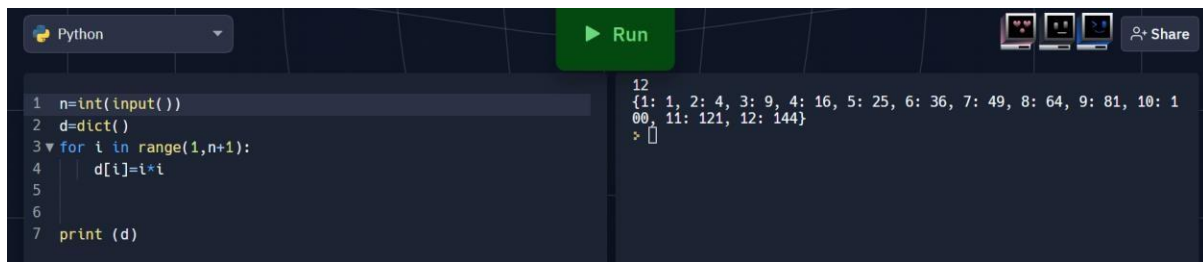
PS D:\Nalaiya Thiran> & 'C:\Python\python.exe' 'c:\Users\thula\.vscode\extensions\ms-python.python-2022.18.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher'
89' '--' 'd:\Nalaiya Thiran\python_ass1(2).py'
15
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121,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

The status bar at the bottom indicates the file is at line 2, column 5, using UTF-8 encoding with CRLF line endings. The system tray shows a temperature of 27°C, mostly clear weather, and the date 18-11-2022.

Solution:

```
n=int(input())
d=dict()
for i in range(1,n+1):
    d[i]=i*i

print d
# .....#
# .....#
```



The screenshot shows a Python IDE interface. On the left, a code editor displays 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
7 print (d)
```

On the right, there is a green 'Run' button and a 'Share' button. Below the code editor, the output of the program is displayed in a dark-themed console. The output shows the dictionary created for n=12:

```
12
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144}
```