



Python

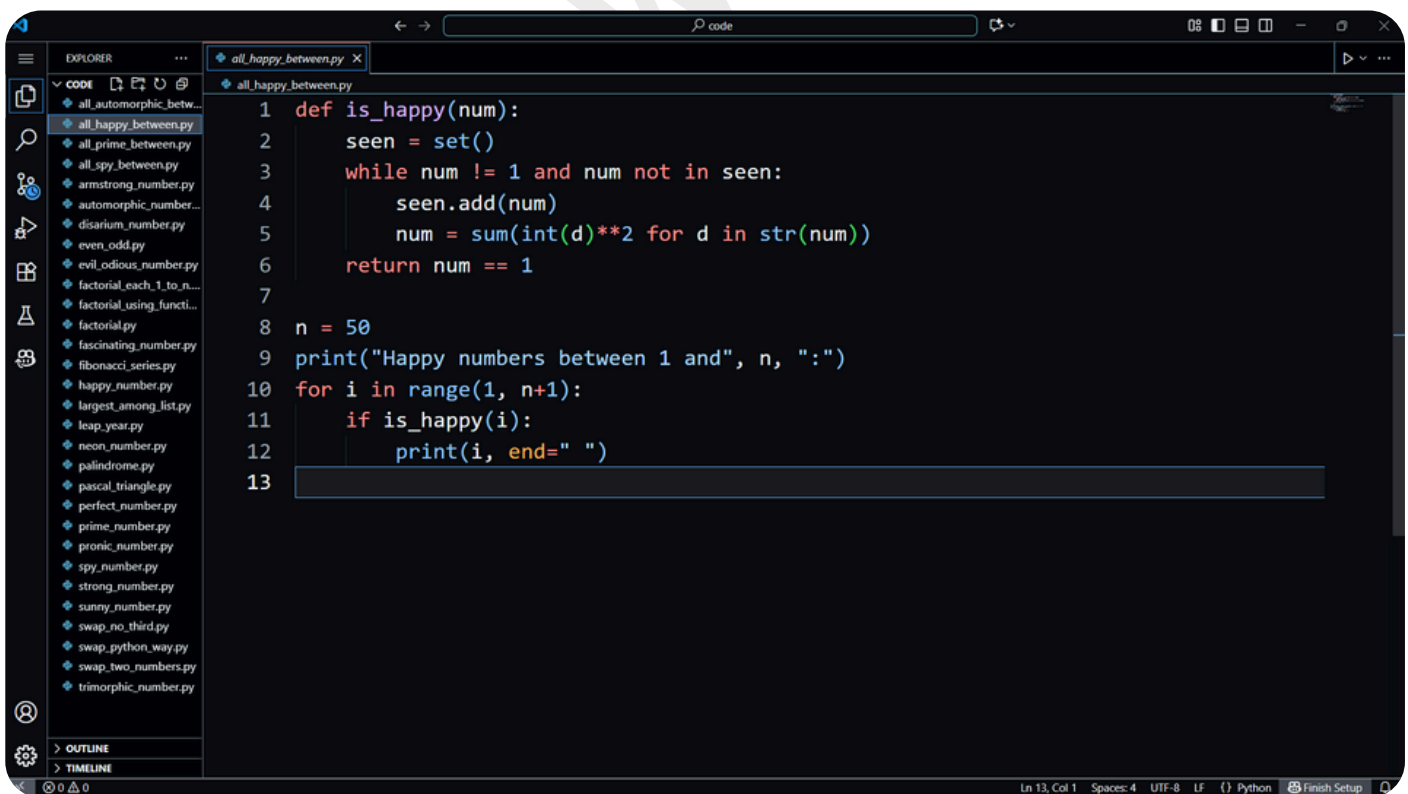
Problem

PYTHON PROGRAM

Python Problem

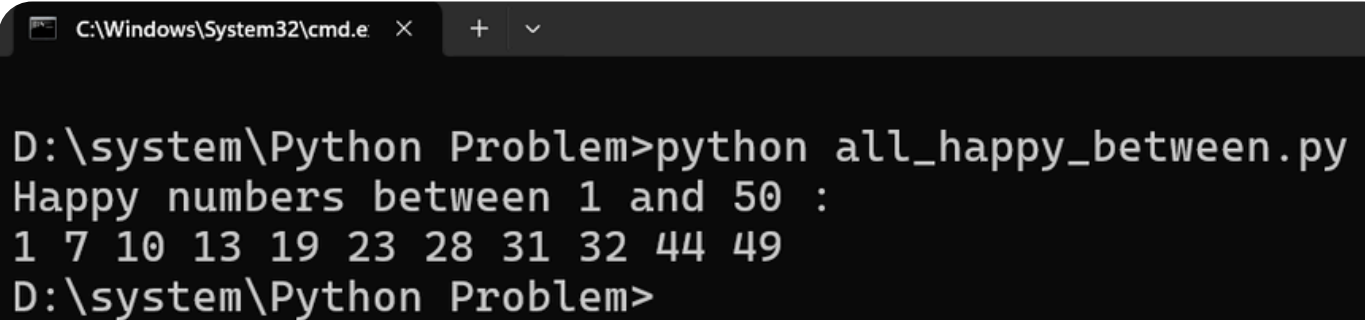
2. All Happy numbers

Code



```
1 def is_happy(num):
2     seen = set()
3     while num != 1 and num not in seen:
4         seen.add(num)
5         num = sum(int(d)**2 for d in str(num))
6     return num == 1
7
8 n = 50
9 print("Happy numbers between 1 and", n, ":")
10 for i in range(1, n+1):
11     if is_happy(i):
12         print(i, end=" ")
13
```

Output



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\System32\cmd.e' and standard window controls. The command prompt shows the directory 'D:\system\Python Problem' and the command 'python all_happy_between.py'. The output of the script is 'Happy numbers between 1 and 50 : 1 7 10 13 19 23 28 31 32 44 49'.

```
C:\Windows\System32\cmd.e X + v
D:\system\Python Problem>python all_happy_between.py
Happy numbers between 1 and 50 :
1 7 10 13 19 23 28 31 32 44 49
D:\system\Python Problem>
```



Thank you !
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