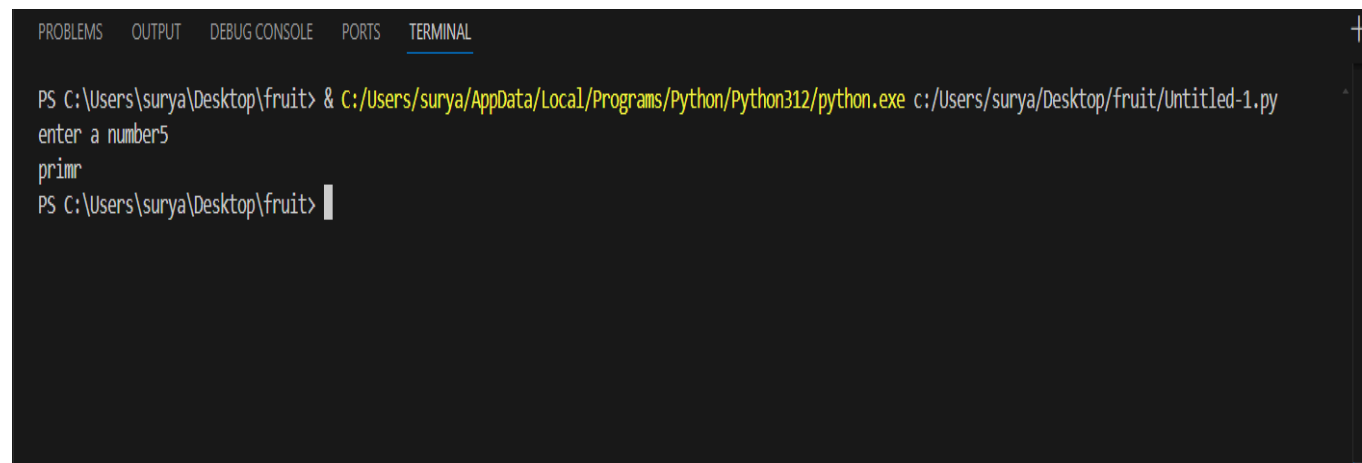


9.WRITE A PROGRAM TO CHECK A NUMBER USING PRIME NUMBER OR NOT USING RECURSION.

PROGRAM:

```
def prime(n,i=2):
    if n<=2:
        return n==2
    if n%i==0:
        return False
    if i*i>n:
        return True
    return prime(n,i+1)
num=int(input("enter a number"))
if prime(num):
    print("primr ")
else:
    print("not prime")
```

TIME COMPLEXITY:O(n)



The screenshot shows a terminal window with a dark background. At the top, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'PORTS', and 'TERMINAL', with 'TERMINAL' being the active tab. The terminal displays the command to run a Python script: `PS C:\Users\surya\Desktop\fruit> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Desktop/fruit/Untitled-1.py`. The output shows the program prompting for a number: `enter a number5`, followed by the result: `primr`. The prompt `PS C:\Users\surya\Desktop\fruit>` is visible at the bottom.