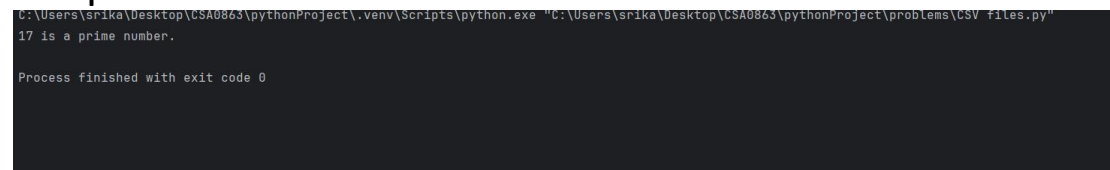


## 9. Write a program to check a number is a prime number or not using recursion.

Program:

```
def is_prime(n, divisor=2):
    if n <= 1:
        return False
    if n == 2:
        return True
    if n % divisor == 0:
        return False
    if divisor * divisor > n:
        return True
    return is_prime(n, divisor + 1)
num = 17
if is_prime(num):
    print(num, "is a prime number.")
else:
    print(num, "is not a prime number.")
```

Output:



```
C:\Users\srika\Desktop\CSA0863\pythonProject\.venv\Scripts\python.exe "C:\Users\srika\Desktop\CSA0863\pythonProject\problems\CSV_files.py"
17 is a prime number.
Process finished with exit code 0
```

Time complexity:  $O(n^{1/2})$