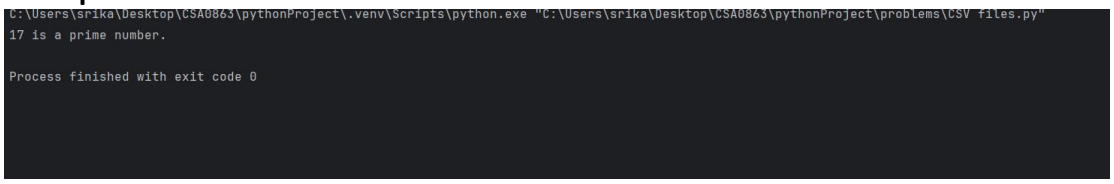
9.**Write a program to check a number is a prime number or not using recursion.**

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 aprimenumber.")
```

Output:



Time complexity:O(n^1/2)