

LAB 4-prime number

Step 1: Problem identification and definition

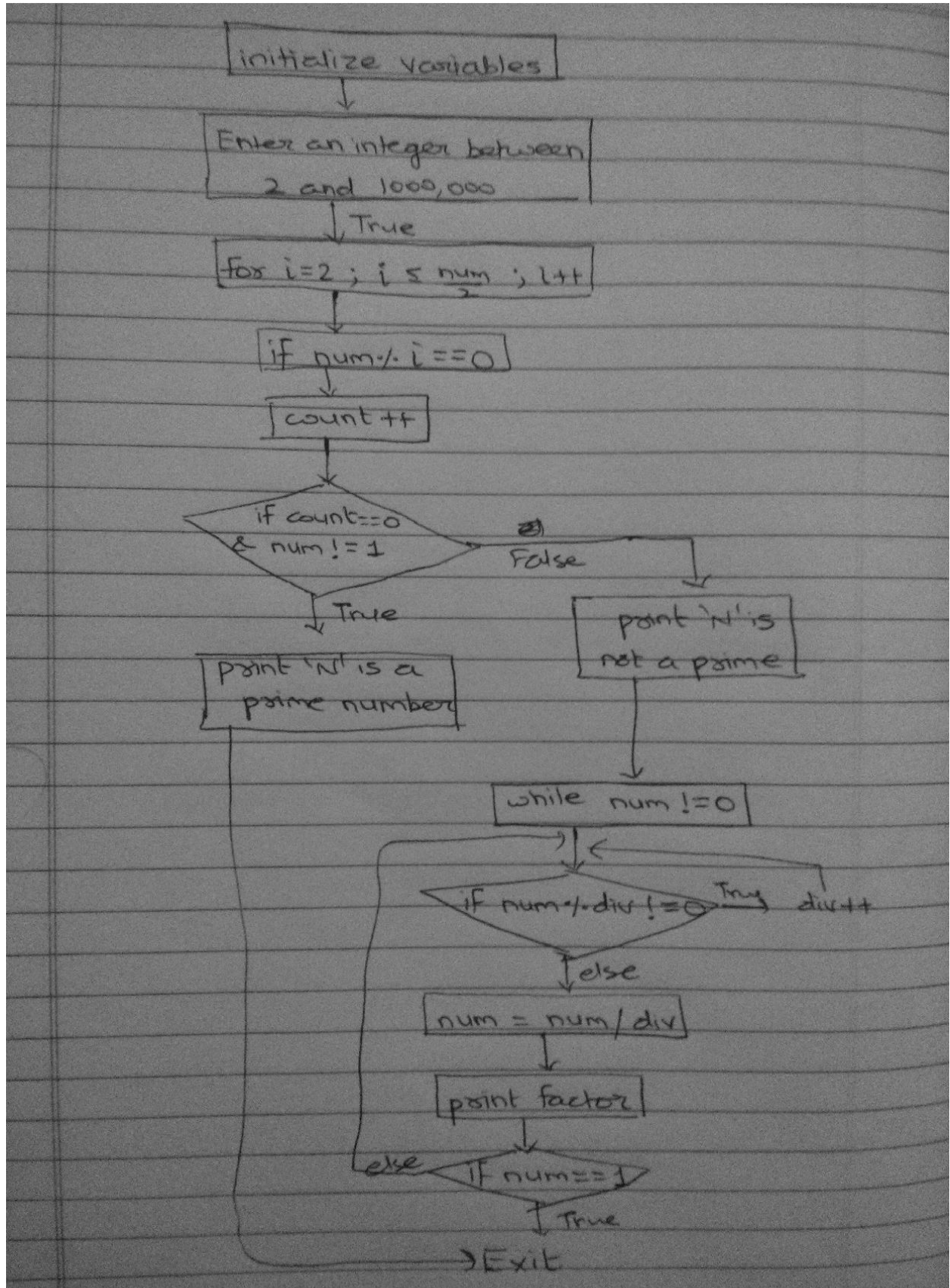
Write a program in C which prompts the user to enter a positive integer between 2 to 1000000 and prints if the number is prime or not. If the number is not prime, it prints the factorization of the number as a product of primes in ascending order.

Step 2: Gathering of Information, I/O Description

Input/output description

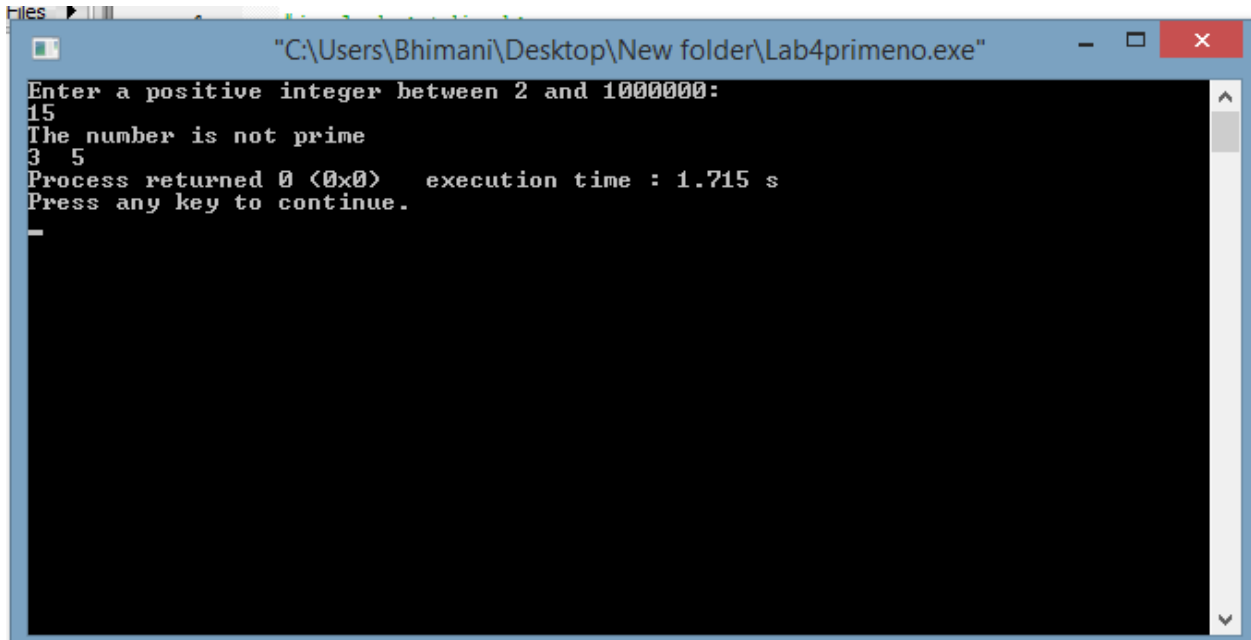


Step 3: Algorithm Development:

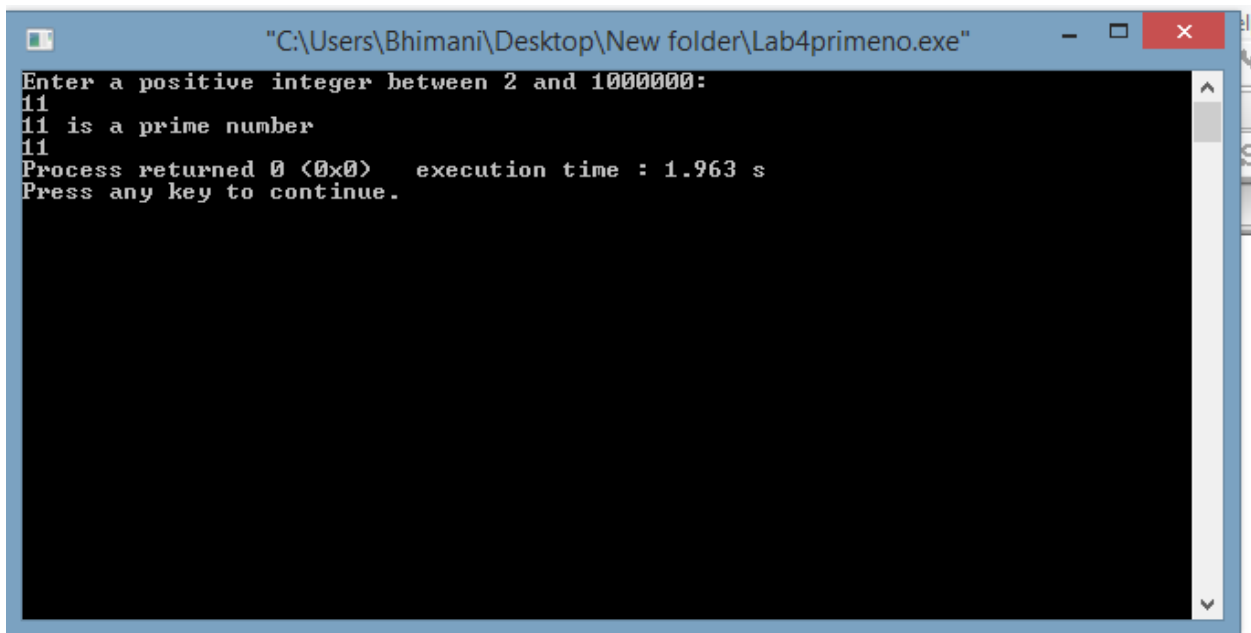


Step 4: Attached in separate .C file

Step5: Verification



```
"C:\Users\Bhimani\Desktop\New folder\Lab4primeno.exe"
Enter a positive integer between 2 and 1000000:
15
The number is not prime
3 5
Process returned 0 (0x0)   execution time : 1.715 s
Press any key to continue.
```



```
"C:\Users\Bhimani\Desktop\New folder\Lab4primeno.exe"
Enter a positive integer between 2 and 1000000:
11
11 is a prime number
11
Process returned 0 (0x0)   execution time : 1.963 s
Press any key to continue.
```

```
"C:\Users\Bhimani\Desktop\New folder\Lab4primeno.exe"
Enter a positive integer between 2 and 1000000:
24
The number is not prime
2 2 2 3
Process returned 0 (0x0)   execution time : 1.731 s
Press any key to continue.
```