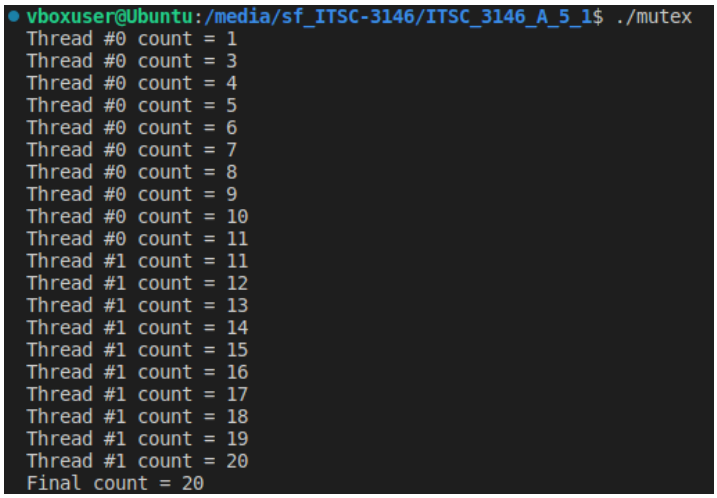
Part 2: Pthread Data Sharing (5 points)

1. A file named **`pthread-data-sharing-mutex.cpp`** has been provided to you in the same project.
2. Compile the program and **execute it several times,** at least 10. Make sure to **pay close attention to the output that the program produces**.
    a. Create a Word or Google Docs document.
    b. In this document, answer the following questions about the program's behavior:
        i. What does it do?

The Code is meant to use two threads to count from 1-20, and then show the final count at the end. The first thread goes from 1-10, and the second thread goes from 11-20.

ii. What output does it produce?



iii. Examine the program code carefully. Is the program functioning correctly?

The program has some issues.

iv. If you do not think that the program is working correctly, describe why?

I believe that the program is not quite functioning correctly. It successfully counts from 1-20 using the two different threads in the proper order. It also successfully calls the join function to ensure that the order of the thread execution is correct. However, the order of the thread execution is not guaranteed.

Take a screenshot of a sample output and upload the picture as part of your assignment submission.