Johnny LLerena
ID: 6279633
11/24/21

For part 2 of this lab, we were assigned the task of creating a multi-threaded assignment that would calculate and share the values of a Fibonacci sequence into an array. The final output of the program is the display of the Fibonacci sequence(up to a specified number of values) and to also do the same for the sum of the sequence. This program does contain thread locking and as such the threads can be organized to complete first before executing final actions such as printing.

The CPU can move execution resources across threads in a multi-threaded process running on a single processor, resulting in concurrent execution. Thus making it an easier task to complete the process in order through different threads. This allows me as a developer to execute the sum command only after threads in charge of creating the Fibonacci sequence have finished setting its values.

Make:

```
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ make
gcc -o Fibonacci pthread2.c -lpthread
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$
```

OUTPUT(testing for different values):

Johnny LLerena
ID: 6279633
11/24/21

```
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ make
gcc -o Fibonacci pthread2.c -lpthread
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 10
0 1 2 3 5 8 13 21 34 55 89
sum = 231
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ _
```

```
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ make
gcc -o Fibonacci pthread2.c -lpthread
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 10
0 1 2 3 5 8 13 21 34 55 89
sum = 231
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 15
0 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987
sum = 2582
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$
```

Johnny LLerena
ID: 6279633
11/24/21

```
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ make
gcc -o Fibonacci pthread2.c -lpthread
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 10
0 1 2 3 5 8 13 21 34 55 89
sum = 231
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 15
0 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987
sum = 2582
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$ ./Fibonacci 20
0 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946
sum = 28655
oslab@ubuntu:~/kernelbuild/Proj3/Pthreads-proj3/part2$
```