

CSCI3240 Lab 11:

Thread-based Parallelism

Please check the following link before you start:

- <https://elearn.mtsu.edu/d2l/le/content/10054355/viewContent/101745305/View>
1. Write a C program “lab11Problem1.c” that calculates various statistical values for a list of numbers using POSIX threads. This program will pass a series of numbers on the command line and will then create three separate threads. One thread will determine the average of the numbers, the second will determine the maximum value, and the third will determine the minimum value. For example, suppose your program is passed the integers:

10, 30, 20, 12, 64, 33, 9, 21, 23, 15

The program will report:

The average value is 23.70

The minimum value is 9

The maximum value is 64

Submission Instructions:

- Upload the following files to Lab11 Dropbox in D2L (**you don't need to zip them**):
 - lab11Problem1.c
 - AI_Disclaimer.pdf
- **Submission Due:** Check Lab11 Dropbox

Rubrics (Total 50 points):

Criteria	Points
No submission or source code is missing	-50
The program does not take the list of numbers as a command line argument:	-20
The average, min and max calculations are not correct.	-10 each
Pthreads not used	-50

2. [50 points] Please attempt the “**Lab11_PartB_Quiz**” quiz in D2L.