

Lab Assignment 6

Thread Synchronization

1. Write a program which spawns a thread, accepts a value from the user using the main program thread, passes the value to the newly spawned thread through a shared variable, and uses the newly spawned thread to output the value back to the user. Ensure synchronization and eliminate possibilities of errors such as in "Producer-Consumer" problem by using semaphores.
2. Write a program that
 - a) spawns a thread,
 - b) accepts two values from the user using the main program thread,
 - c) passes both values to the newly created thread through a shared variable,
 - d) uses the newly created thread to carry out multiplication operation upon the aforementioned values,
 - e) communicates the result of communication from the newly created thread back to the main program thread again through the same shared variable
 - f) and finally uses the main program thread to display the result back to the user.Also make sure that everything is properly synchronized and error-free by the usage of synchronization primitives available in Pthread library.