CS433 Lab 5: Semaphores – June Phillips

A screenshot of a computer program

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QUESTION 1: What is the initial value of the semaphore variable?

The initial value of the semaphor variable is 1. This is from line 14 where the semaphore variable initialized.

The 3rd argument of the initialization states that the initial value is 1.

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QUESTION 2: What is the significance of using sleep(1) function in the functions fun1() and fun2()?

The sleep(1) function allows for a context switch to occur. The delay is 1 second long.

fun1() would sleep so that fun2() would be able to run its critical section.

fun2() would sleep so that fun1() could run its critical section.

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QUESTION 3: What will be the initial value of the semaphore variable if there are 5 instances of the resource?

The initial value of the semaphore would be 4. Again, in line 14, the semaphore variable would be initialized.

The 3rd argument would 5. 5 threads would be accessing the resources.