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Project 2: See Saw Simulation

This project, although originally thought to be easy, turned out to be a bit tougher than expected on my part. I attribute this to my lack of understandings of what a Semaphore truly is and should have been more diligent at the beginning to make sure I properly understood what I was to be working with.

The two Semaphores I used in this project were the calcHeight Semaphore and the outputSem Semaphore. The first one was used primarily to keep track of all calculations based off of a Boolean value for if Fred was either going Up or Down. It then selected the proper if or else if statement and carried out the small calculations for each interval (on the one second mark). The second Semaphore was used only to push text out to the console, informing the user of Time, Fred’s Height, and Wilma’s Height.

This project also involved the use of two threads, which respectively were the RunFred and RunWilma Threads. Each Thread made within for loops to the previously stated Semaphores, and each ran for 50 times as the project needed to run until Time 100 (a total of 10 Up and Downs).

The one issue/error I had with this project was getting the values to properly print out to the console. The selected screen grab of the output highlights a section that properly worked. However, more often than not, Wilma’s Height displayed incorrectly, even though it was being calculated correctly. This was apparent because both Fred and Wilma’s Heights get calculated at the same time, however, Fred’s Height always properly displayed each time I ran the program, and sometimes Wilma’s worked, while other times it only displayed right for half of the program.