Jack Primiani

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CSCE 311

Assignment 3

I started working on this project the weekend of February 16th –17th. I used the assignment page to guide me through modifying each method from Project 3. I had strayed away from the readyQueue being a generic list, and I felt a vector had the same advantages and methods on Project 2. I read the assignment page and changed my vector into two separate generic lists based on active threads and expired threads. I edited my functions based on what the assignment page said next to each. I changed my ‘init’ function to initiate the generic list arrays and sets my interruption flag boolean from do\_dispatch to false. I had to change very little in my do\_create function. The main change in do\_create is switching the parameter to 2 in the expired generic list array and what the priority of the new thread is set to. Do\_kill was easy to fix since it did not have any changes other than converting the vector ready-queue into two generic list arrays. Do\_suspend gave me error when the current thread was null, so I had to put in a try catch like I had in project 2’s do\_dispatch. Other than troubleshooting errors, the do\_suspend method was straight forward. Both do\_resume and do\_dispatch use a boolean ‘qBool’ to identify if the thread had been interrupted, and send to the active array. And if the quantum has expired, the Boolean will identify when to increase priority and send the thread to the active array. Do\_dispatch was the the trickiest. I continually got errors and had to restructure my entire do\_dispatch method from project2. The key to solving these was using Booleans ‘qBool’ and ‘empty’ to identify the status of the elements in the active array. In the assignment page it recommends to make a separate method for finding the next thread, but I decided to leave the code as is since it is working fine. My simulation ended, but warnings were issued. “CPU is idle, but there are ready threads” is the warning and I have tinkered with my code but it does not seem to effect the simulation’s results.