

CS-307 HW2 Report yarkın eren 26523 yarkineren

In the run part first of all I get a random number to sleep every thread to demonstrate the philosophers time to sit on the table. Time is between 1 -10. Then I implemented a barrier in order to start the eating process of philosophers at the same time. In the loop of the problem, I have 4 functions as in the recitations. Also, a test function for changing the state of a philosopher to eating. The test function works like, we check if the philosopher is hungry, so he is done the thinking part. Then we check the left and right of the philosopher if they are not eating, we can change the state of our philosopher to eating. So, in the loop in the main, our first function is `phil_think`: this function serves for only one think creates a random integer between 1 10 and sleeps the thread for thinking process of the philosophers'. Then our second function is `take_forks`: In this function we use a mutex to no philosophers would try to take the same forks at the same time. The thread goes in to mutex, make itself hungry because his thinking step is done. Make himself in gui hungry. Call test function in order to understand can he eat or not then goes out of the mutex. Third function is `phil_eat`: this function only serves for gui. The animation of taking the forks and the animation the the philosopher eating. The last Function of ours is `put_forks`: Again, we use mutex in this function. We have two gui functions also `forkput` and `stop eating` . then we change the thread's state to thinking again. And we call the test function for the left and right philosophers then we go out of the mutex.