Homework 2 Report – Barriers & Dining Philosophers Problem

In this homework we have 5 philosophers, 5 plates and 5 forks to eat. Therefore, I applied some mechanisms that we have learned in the lectures. First, I created a barrier to wait for each philosopher to come to the table then starts to eat. Hence, I applied barrier by releasing other barriers that are not already taken then I acquired my barrier N -1 times since if it is N then it goes to a deadlock since the number of other barriers is N – 1. Furthermore, I have random integer assignments for coming to the table and thinking processes

Then, to make it more modular I have created taking forks and putting forks function with respect to the codes that we have studied in the lecture. I have defined classes with throwing exceptions since I am using try and catch in the main part. Then, I have created testing function to check whether the fork is available or not to use to start eating. By using mutex, I am applying the related GUI functions to represent it figuratively. After turning into thinking state after eating state, I checked the left and right forks then released according to the condition that was specified in the lecture

In the testing function I checked the state status of the philosophers whether it is eating or not. In putting forks, again I try to be as close as I can in terms of algorithm that we have seen in lectures and recitations. After defining functions, I call them in the main and it can be seen, it is working in while(true) loop. I tried to explain as much as I can with comments. Any questions related to my homework, I will be gladly ready to answer.

Yours Sincerely
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