CONCSYS - ASSIGNMENT 4

Upload your solution on ILIAS as a ZIP or TAR.GZ including all your files (sources, text file with explanations, ...). In case of questions, please address them during the lab or by email to yaroslav.hayduk@unine.ch

Deadline: April 28th, 2015

Exercise 1

1. Implement the fine-grained lock list presented in the course.

2. Implement the optimistic fine-grained lock list presented in the course.

Test the lists in time measurement benchmarks on the Sun machine for sets of 2,4 and 8 threads that should work as described in the following. Generate a random set of 100000 integers, in the range of 0 - 100. Each thread will get an equal part of the set (e.g. for 2 threads the first will get the first 50000 elements, the second the last 50000 elements). Half of the threads will try to add their share to the list and half to remove their share from the list (note that the lists are supposed to be ordered as presented in the course and the integers to be considered as the keys). Report in a file named A4.txt your benchmark results and what you can conclude regarding the performance difference between the two types of list.