

Advanced Programming

COEN 11, Fall 2014

Lab 9:

Extend your program for lab 7 (fabulous restaurant)

Include an auto-saving thread to save the info from the list to a binary file every 5 seconds.

Your thread is in a loop forever.

- It sleeps for 5 seconds
- When it wakes up, it opens the file and traverses the list, writing the info to the file.
- Then closes the files and sleeps again.

The list is shared: Use a lock!

- Lock whenever you change the list or save it to the auto-saved file.
- Cancel the auto-saving thread before you save the list at the end.
- Use the lock to guarantee that you are not in the middle of saving the data to the temporary file when you cancel the thread.

File Requirements

- The name of the auto-saved file could be an argument to the program (argv[2]) or be constant (temp.bin).
 - The file should be binary. Use fwrite to write each node to the file.
 - Add an option to your program and create a new function to read the binary file (with fread into a temp node) and show the contents on the screen.
- Don't forget the lock when reading the file!