Objective: Use mutex locks to avoid race conditions.
Description: In lab 9, you developed a multithreaded version of the graphical browser you implemented lab 7 that was more responsive to user interaction. One of the tasks of that lab was to implement a mediator class that acted as a middle man in the collaborations between BufferedNetworkStream and the GUI widgets. In doing so you did not worry about race conditions in the mediator design. The goal of this lab is to change your mediator to prevent these. You should use the same solution for synchronizing access to the mediator that you used in lab 8 to synchronize access to the BufferedNetworkStream. In this lab, you may use all of the materials that were available to you for lab 9.