HW3: MVC and Thread Synchronization

For this homework, you will gain experience applying the MVC architectural pattern and implementing thread synchronization.

Task #1: MVC Refactoring

Similar to HW2, you must once again refactor your Message Board web app, this time making it follow the MVC architectural pattern. Your implementation must comprise model (POJOs), view (JSPs), and controller (servlets) classes, and each must implement only the responsibilities associated with its role. You must use packages to group each type of class.

Task #2: Correct Thread Synchronization

Your previous implementations of the Message Board web app most likely contained concurrency errors—specifically, race conditions. You must correct all such errors (without introducing new ones) using Java's synchronization mechanisms. Hint: Applying the monitor pattern is probably your best bet for synchronizing accesses to an object shared by multiple threads.

Task #3: Add a Moderator Interface

In addition to the above refactorings/corrections, you must add a new feature to your web app: a moderator interface that enables a moderator to delete messages. As you're probably aware, the quality of discourse on the Web is not always the most civil (to put it lightly). This feature will enable a moderator to remove inappropriate comments. Do not worry about authentication and authorization of the moderator. Just implement the functionality that the moderator needs to view and remove messages.

Submission Instructions

To submit, tag your revised project as **HW3**.