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Reference Monitor Writeup

After reviewing my reference monitor code against others' as well as the passed attacks, I've noticed the obvious lack of locks in my code. The issue behind this mistake is that multiple actions, especially writeat and undo, could be run simultaneously through threading which will disrupt the intended effects of the functionalities, this is fixed simply by creating a lock to the file object and locking it whenever any function is running.

Secondly, another issue I had was not tracking the file size, making the file recognize originally invalid writeat as valid. This issue is fixed by adding a parameter tracking the size of the file which is updated whenever a valid write is called or when undo is called. I also added a variable to track the size of the file before the last valid write, making sure undo does not mess up with the file's actual size.

Additionally, although I've handled the input exceptions, attacks against them still seem to be valid, after comparing with other students' reference monitors, I found that you are supposed to raise the specific exceptions instead of having them as the value of an Exception object, after changing this, there shouldn't be any more vulnerabilities to my reference monitor.