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CS-499

Category 2 Narrative

The artifact I enhanced was originally from my CS-405 Secure Coding course and named BufferOverflow.cpp. This program was designed to overflow and the task we were given was to secure the program by limiting the overflow to a certain degree and catching the error when a user mistakenly broke the limit. During this enhancement I wanted to practice hashing the user input as I have only done it once before in another course. I used some knowledge from before and perfected the hash as well as salt the input. If the user went over the limit, I still made sure to focus on catching the error and informing the user of their limited input for the next time. The artifact was improved by this enhancement for my own personal gains as well as an audience who really wants to see the behind the scenes of hashing and salting their passwords. I was able to reflect on how secure SHA-256 is and how exciting it is to understand that most sites around the world use SHA-256 to encrypt my own passwords which helps build trust and satisfaction. The challenges I faced with this project was the original installation of the library Cryptopp because my vcpkg wasn't linking properly and I had to install several times for it to fix.