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Random Testing Quiz

For this project, we were attempting to trigger an error message. In order to trigger this error message, 9 random values need to be triggered. Once these values have been triggered, a random set of letters needs to spell out the word "reset."

The most restrictive case is to find an efficient way to generate the word reset. The word has 5 characters, so we will create a 6-character string in which to store our random characters. The extra character is for the null terminator. In order to increase the likelihood of randomly generating the word "reset" we will restrict our pool of letters to the bare minimum part of the ascii table to contain the letters r, e, s, and t. In this case ascii 101 through 116 correspond with ascii characters e and t, which book end alphabetically the required letters. This leaves a pool of 16 possible letters.

The random letter generator needs to capture a series of random characters. These characters are spread out between ascii characters 32 and 126. I could have made the pool smaller by removing the alphabetic characters from the pool, however, that would have made the implementation more complicated and the random generation of 9 characters from a pool of 126 is not a substantial effort.

The program performance will trigger the event in under 5 minutes as prescribed. It usually takes 1.25 million attempts, which can be obtained in that window.