

## Random Testing Quiz - Development Write Up

**inputChar** : First wrote this function and tested to make sure it was working as expected. I decided to only test for the characters that will be tested in the function testme ( '[', '(', '{', ' ', 'a', 'x', '}', ')', ']' ). First, I set an array to hold just the characters to be tested. At first, I had set the size as 8 instead of 9 (because index starts at 0 and there are 9 total characters). However, realized a '/0' is added, therefore had to set my array size as 9 to account for the ending null character. Made results random by using rand() function so that a random character would be selected within the choices and would return as variable c in the testme function. Ran the program without implementing the inputstring function which resulted in a program that never ended. However, I was able to stop the program manually and check that each state (1 through 9) was reached to ensure that the inputchar function is working as expected.

**inputString**: Used same logic as when implementing inputChar. At first, the only difference was that I had to use a loop to ensure that each index would contain a random character so that a string will be formed with my random functions. However, when I ran the program this way, found that variable s in the testme function was producing gibberish results and my program did not terminate (clear sign my code was wrong). Realized I had to dynamically allocate memory to account for pointer usage which fixed my gibberish problem. However, noticed my program was still not ending and had to manually add the null character at the end of my randomly generated string, after the loop ended, to ensure that the last place of my string would be occupied with a null character at all times which can eventually lead to the termination of the program. I thought the null character was added by default to all strings so was not sure how to truly randomly allocate my whole string to form "reset/0" so that the program can end. Only way I found to work around this was to manually add the null character.