

Cameron Church

SE II

Random Testing (RT) Quiz

inputChar() function

This function is extremely simple. It starts by generating a random integer between 32 and 126. ASCII code associates the number 32 with the space character (' ') and 126 with the "~" character. So all values that are randomly generated will fall within that range. The program then converts the integer value into the appropriate char, and returns it.

inputString() function

Since the target statement is a 5 character word (reset) followed by a terminating character (\0), I designed this function builds a string (char array in c) composed of 5 random chars, along with a terminating character in the final array position. The program starts by declaring the character array. It then uses a loop to generate 5 random chars and places them in the array. However, since all the characters in the target statement fall in the ASCII range of 101 ("e") to 116 ("t"), it only generates values within this range. This helps the testme() function runtime remain relatively quick since it only terminates once the target string has been randomly generated. After the loop completes, the function places the terminating character in the final position (index 5). It then returns a pointer to the newly creating array which will be used by the testMe function.