Class Invariants:
- The size of the char array will always be one larger than the value tracking the number of characters in the array, to account for the null terminator
- The length of a String will always match the underlying capacity of its char array
- The number of char in a String will always be non-negative, as it was defined as such

Preconditions:
- The character array for the String is not null, and that it has been set up properly (correct char count and characters)
- That initializing a new String works properly, and that it creates an empty char array