

The way I performed my parsing and dynamic memory allocation was like this:

I have a character array `buf[]` that I store the initial input from `stdin` as a global variable. I also have a global 2D array `**commandcomp`. My goal is to parse the characters from `buf[]` into individual strings stored one by one in `**commandcomp`. The challenging part was correctly dynamically allocating memory for the length of `**commandcomp` and then additionally the length of each string in `**commandcomp`.

First, I had a while loop to detect whether there were multiple spaces in a row. If there were, I exit the program as per the directions. Then, I had a second while loop, where I again count spaces to determine the length of `**commandcomp` and `malloc` for it. I also add a null pointer to the end of `**commandcomp`. Then I had another while loop where I count the length of each word and `malloc` space for it within `**commandcomp`. For my next and last while loop, I go through character by character and place it in the correct row and column of `**commandcomp`.