1. For this problem, I first made 2 matrices and stored them in a binary file using the provided create_matrix.c file. Then I created the c file in which I would do the multiplication of each element and store it in a result.bin file. First, I allocated memory for having all of the matrices to make sure that if the multiplication is bigger than an int can hold, it would take care of that. Then I read both matrices by sizeof(int) since that is what the create_matrix.c creates the file as. After this, I went thru each element, multiplied them, and then stored it in the result matrix which hold a size of long long so it takes care of overflow. Lastly, I write the result matrix to result.bin giving each element a size of 'long long' to handle any overflow errors.
2. For the second problem, I first made a recursive function that checks each element in a folder and if there is a folder it calls the function again with that folder. If it finds a file with .txt extension, it would call the other function which counts the lines in the txt file and adds to a count pointer so it keeps track of the lines in every file. In the main function, I just called the function once with the user provided filepath and the address of the totallines variable and then printed the the totallines variable after that call.