CE140: Computer Programming

We declare variables and arrays that are of type float. X is a two dimensional array of type float with 6 rows and 6 columns. T3 is a single dimensional array with 3 rows. We have integers being initialized and variables being declared. N is being initialized and hard coded with the value 3. The character file is an array of type character with 256 elements. fp is the object to access the file which is a pointer to the file of type file. We open the file “equation.txt” and we check if fp is equal to null. If it is not equal to null the file opening is successful and we output that message. This is to check the file is in the correct position. Then we use a while loop that keeps running until b is equal to 2, so the program runs thrice. First we scan the file and print the values to x ,y, z, and C2. The for loop starts for i that runs for 1 to n and another for loop for j that runs from 1 to n+1. We initialize the values for x, y, z and C2. In float x, I is the row and j is the column to store. The same goes for y, z and C2. In the loop for j we check if i and j have the same values, if they don’t we divide the elements i row and j column by the j row I column elements. The value of that is stored into ratio. For loop with k is used to change all the column values, by subtracting the product of the value with ratio. Therefore, the loops solve the linear equations. Finally we store the solution in t and print it using a loop.