ReadMe Document
Intro to Computer Science.
12/15/2025

Project Overview:

This code opens a txt file to analyze an X grid coordinate, a Y grid coordinate and a character either black or white. Organizes them into a 2d array structure to display the contents as a hidden English message.

1) **Convert input data into a txt file.**
   a. Converting the document into a .txt file for easier access.
2) **Open the file**
   a. Open the file in the editor and ensure the file isn't corrupt.
3) **Determine the max number of lines inside file.**
   a. Adjust the max number of lines for the header lines.
   b. Ensure the data is divisible by 3.
   c. Reset the document pointer.
4) **Create a 2d array to store the data.**
   a. Store the X coordinate into a 2d array.
   b. Store the Y coordinate into a 2d array.
   c. Store the character symbol into an array.
5) **Create a structure to store the data.**
   a. Convert the array into a vector.
   b. Create a structure that includes a X, Y, Character data types.
6) **Sort the data by Y & X coordinates.**
   a. Implement a bubbleSort algorithm to sort by Y.
   b. Implement a bubbleSort algorithm to sort by X.
7) **Determine the size of the display.**
   a. Implement a max X value to determine the maximum width.
   b. Implement a max Y value to determine the maximum height.
8) **Display the message using the width and height given by max X and Max Y.**
   a. Display each character based upon the order they appear using x and y coordinate.