Coding Challenge #4
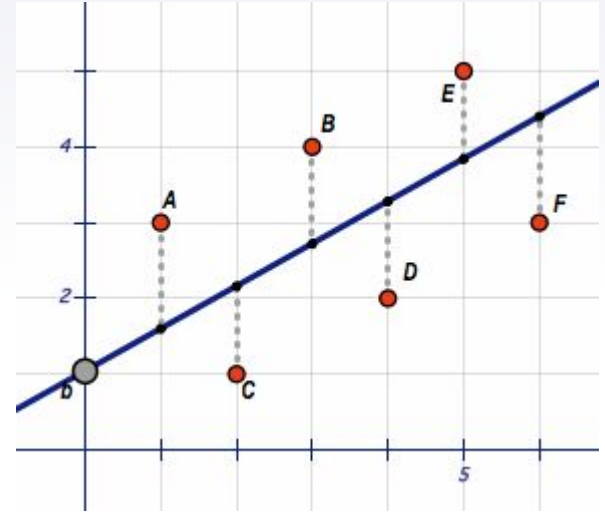
❖ The purpose of this program is to calculate the equation of the best fit line for a data set using linear least-squares fitting.

❖ Datafile is a ".csv" file with time and velocity data found in the *files* tab on canvas.

❖ DO NOT change any variable names already present in the code.

❖ <u>Steps</u>

1) Load data from csv file

2) Find linear best fit coefficients and associated uncertainty.

3) Plot the original data along with the best fit line.

4) Add error bars for fit uncertainty to this plot from the data and from   the linear regression parameters.

As the regression line slope changes, then the distance between the data and the line also change.

Source:https://en.wikipedia.org/wiki/File:Least_Squares.gif

Coding Challenge Rubric

Points Possible	Expectations
1	Present and collaborating with group members.
1	Submitted code that runs without errors.
1	Code is neat, commented, **file name follows naming convention, and is properly published and submitted.**
2	Code properly completes all outlined tasks
Total: 5	If all expectations are met 5/5 points will be awarded.