Activity 9: Machine Learning (Part 1)
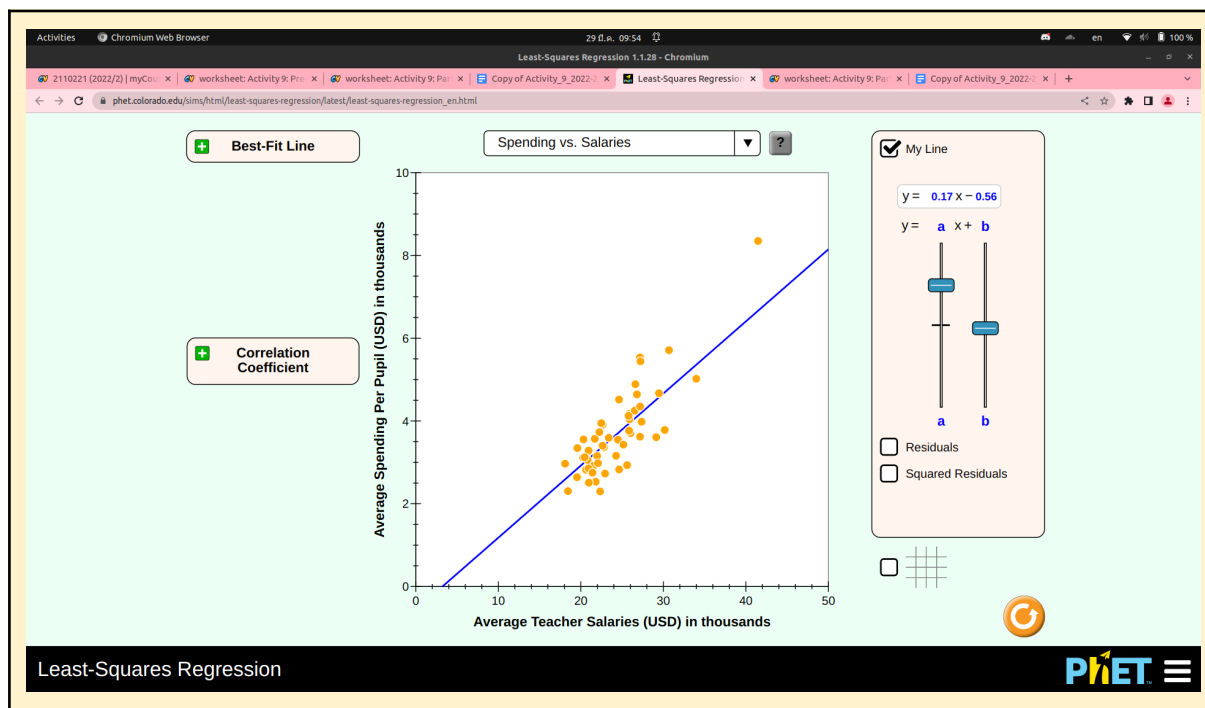
Activity 9: Machine Learning

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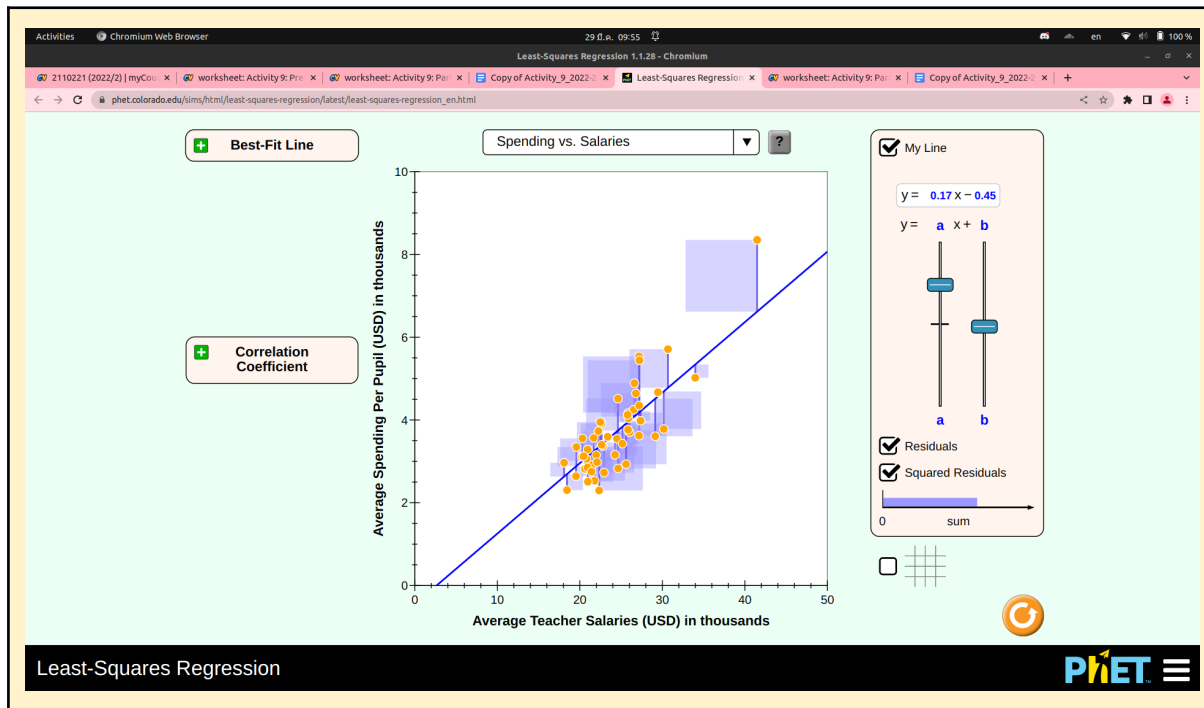# Part 1: Learning from data - Linear regression

1.1 Go to this link, select *Spending vs. Salaries* dataset, and answer the questions below.

1.1.1 Draw a line that fits the data well by adjusting the values of a and b on the right panel. Submit a screenshot showing that line below.
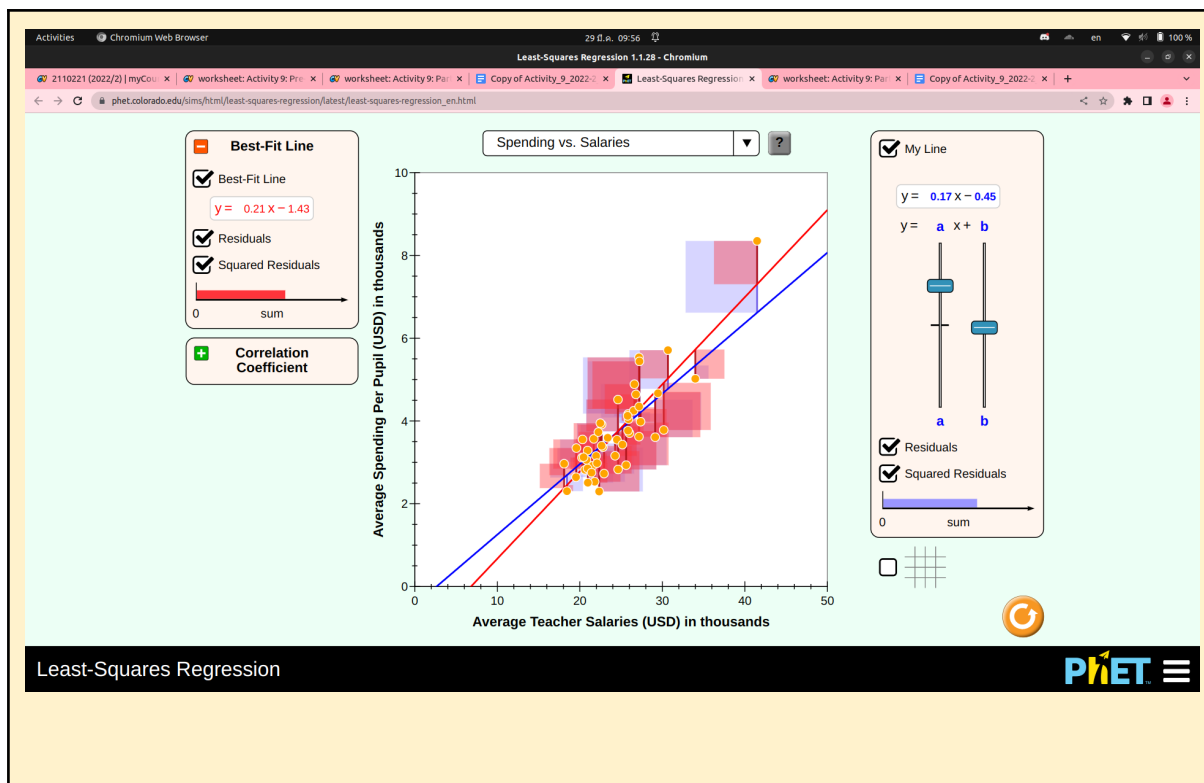

1.1.2 Check residuals and squared residuals to see the errors. Try to adjust the line further to minimize error. Submit a screenshot with the adjusted line below.
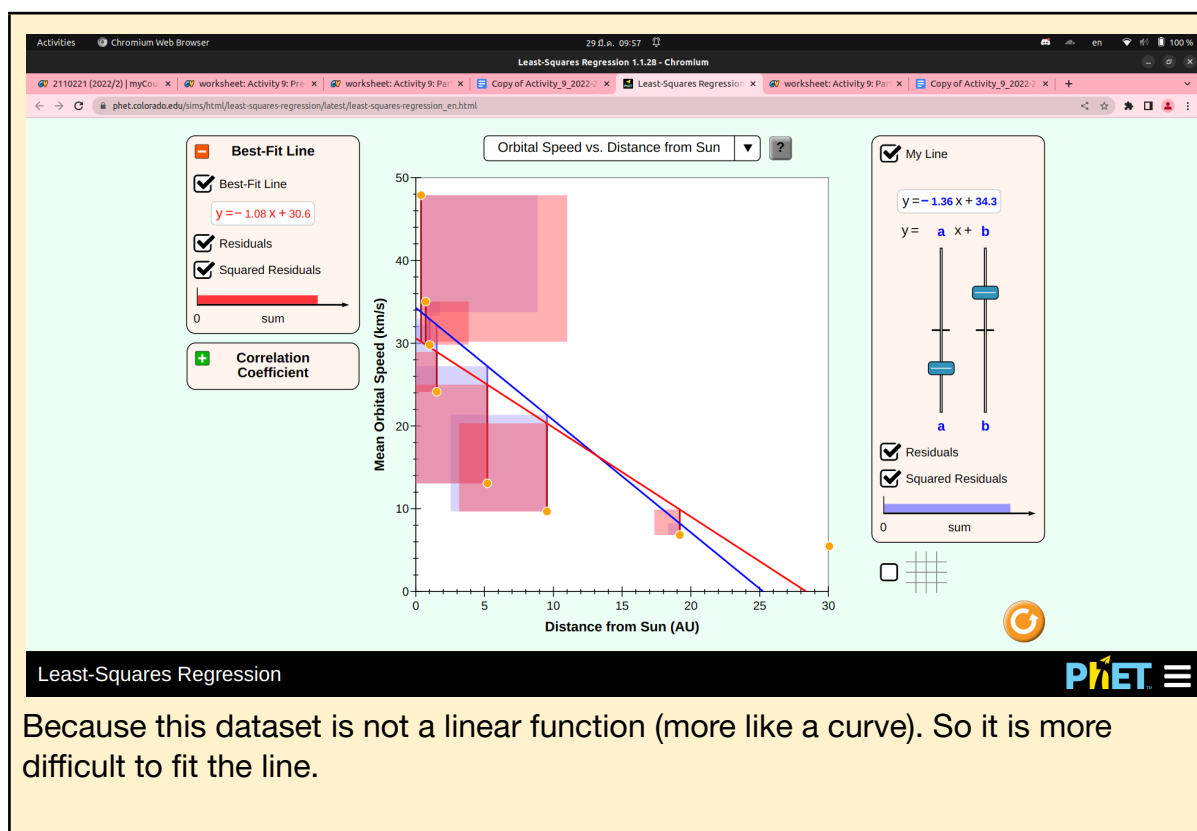
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1.1.3 Check out the best-fitted line on the upper left panel. This is what machine learning can do! How does this line compare to yours? Submit a screenshot showing that below.

PS. You don't need to adjust your fitted line further. There is no extra point for that.

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1.2 Hit the reset button on the bottom right and switch to *Orbital Speed vs. Distance from Sun* data set. Repeat the same actions as 1.1.1-1.1.3. Is it more difficult to fit a line to the data? Why so? Submit the screenshot from the last step and discussion below.

Because this dataset is not a linear function (more like a curve). So it is more difficult to fit the line.

Once you finish, <mark>students must inform an instructor or a TA for inspection.</mark>

— THIS IS THE END OF PART 1 —