

## Lab 05 - Regression

As seen during class, there are many requirements on the data we feed to simple linear regression (SLR). In this lab, your task is to recreate the visual work in class to determine whether a dataset is appropriate for SLR and show how you are able to apply the technique to a previously-unseen dataset.

## Data

There are two datasets for this lab, listed in Table 1. Use (only) the Predictors listed.

Dataset	Target	Predictors
<a href="#">Toluca</a> dataset (courtesy of Paul Intrevado)	lotSize	workHours
<a href="#">Credit</a> dataset (from Introduction to Statistical Learning with Applications in R)	Limit	Income Rating Cards Age Education

Table 1: Datasets, Targets and Predictors

## Process

Use the starter code [here](#) and fill in your name and USF email in the readme.

For each predictor, your implementation must:

- Plot the predictor against the target
- Plot the residual against the target
- Determine the coefficients (slope, intercept) against the target

... and based on the above, you must determine whether the predictor is suitable for SLR.

## Grading

Grades for this assignment will be determined by the grader as follows:

- 100% = Code functions, is well-documented and clearly shows the relationships of all predictors to targets and to residuals.
- 75% = Code functions but is not well-documented or does not clearly show the relationships of all predictors to targets and to residuals.

- 50% = Code functions but is not well-documented -AND- does not clearly show the relationships of all predictors to targets and to residuals.
- 0% = No submission / code does not function.

## Submission

Submit your code to Github, and submit the link to your repo on Canvas. Late submissions will be penalized or not accepted.

The deadline is 11:59 PM on February 26, 2020.