# ML Chapter 5

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# Multiple Linear Regression

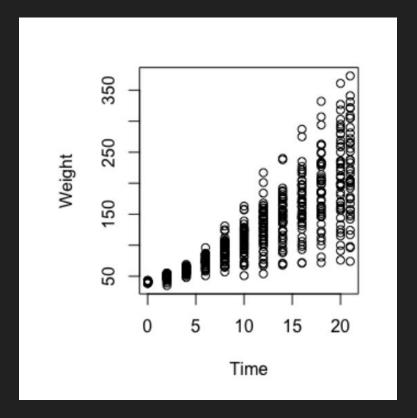
We can use a target, with multiple predictors. This mapping and graphing is called Linear Regression.

Multiple linear regression we use more than one predictor

#### Plot 1

We can use this plot to get a visual representation of this data over time with weight and time as the predictors.

- We can see the weight of the chicks increase over time.
- Chicks start off at near identical weights and diverge over time



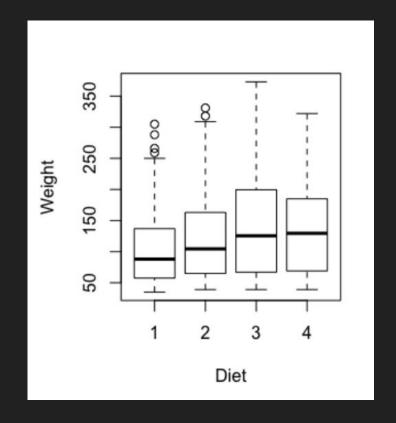
### Plot 2 (Box Plot)

We can also use this information in box plot form.

 Box plots show the median value as the horizontal line through the box

the box itself shows the IQR (inter-quartile range from the first to the third quartile)

 the horizontal lines at the end of the dashed lines show minimum and maximum values



# Plot 2 (Box Plot continued...)

This box plot show the relationship of chick weight v.s their diet.

- plot on the right shows the impact of diet on weights
- diet 4 is slightly better than diet 3 and diet
  1 appears to result in the lowest weights
  for chicks

