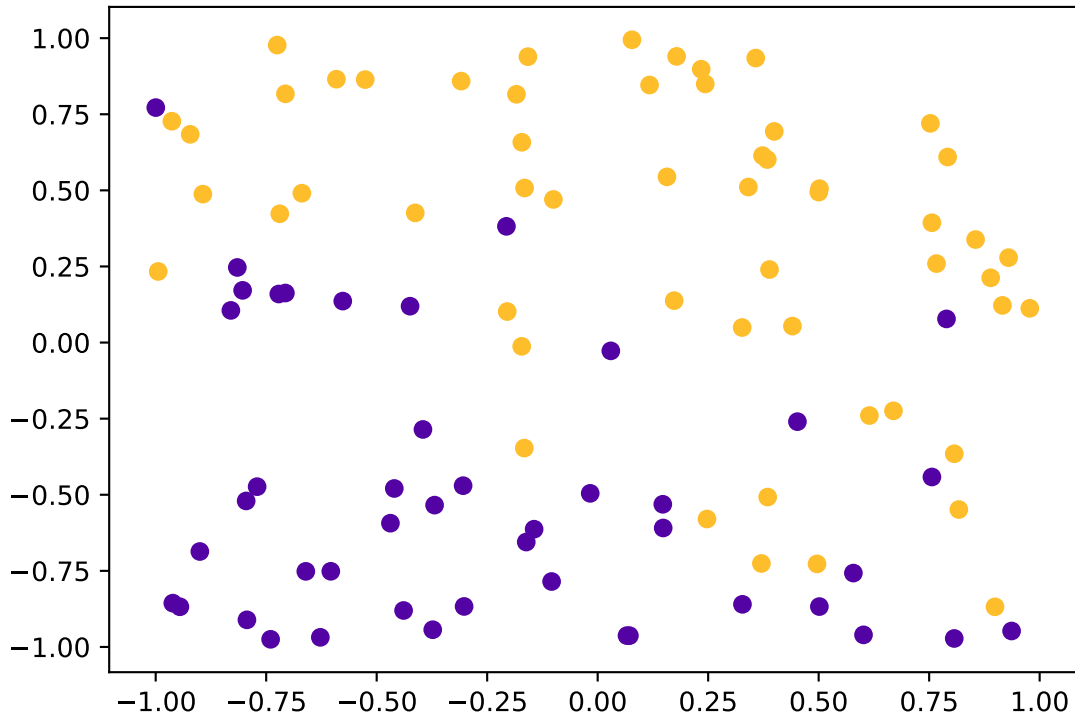


# Motivating Example 1

Jan. 22, 2020

## Example

Here's a fake data set with two quantitative features (also known as explanatory variables, independent variables, or inputs) and one categorical response (dependent variable, output):



(a) On the plot, draw your guess at a good decision boundary: you will predict that  $y = 0$  (plotted in blue) on one side of the decision boundary and  $y = 1$  (plotted in orange) on the other side of the decision boundary.

(b) What model would you use for these data?