

Session 3 Live Coding

Visualizing Regression

```
library(tidyverse)

# Write our helper function
regression.sim <- function(sample_size, constant, effect_size) {
  set.seed(1)
  n <- sample_size
  alpha <- constant
  beta_x <- (effect_size)
  x <- rnorm(n, 0, 1)
  y <- alpha + (beta_x * x) + rnorm(n, 0, 1)
  sim.df <- tibble(y, x)
  ggplot(data = sim.df, aes(y = y, x = x)) +
    geom_point() +
    geom_smooth(method = "lm") +
    labs(title = paste0("Equation: y = ", alpha, " + ", "(", beta_x, ")x"),
         subtitle = paste0("Sample Size = ", n)) +
    theme_bw()
}
```

```
regression.sim(10, 5, .1)
```

