Session 2 Live Coding Exercise

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Libraries

```
library(tidyverse)
library(rstanarm)
library(bayesplot)
```

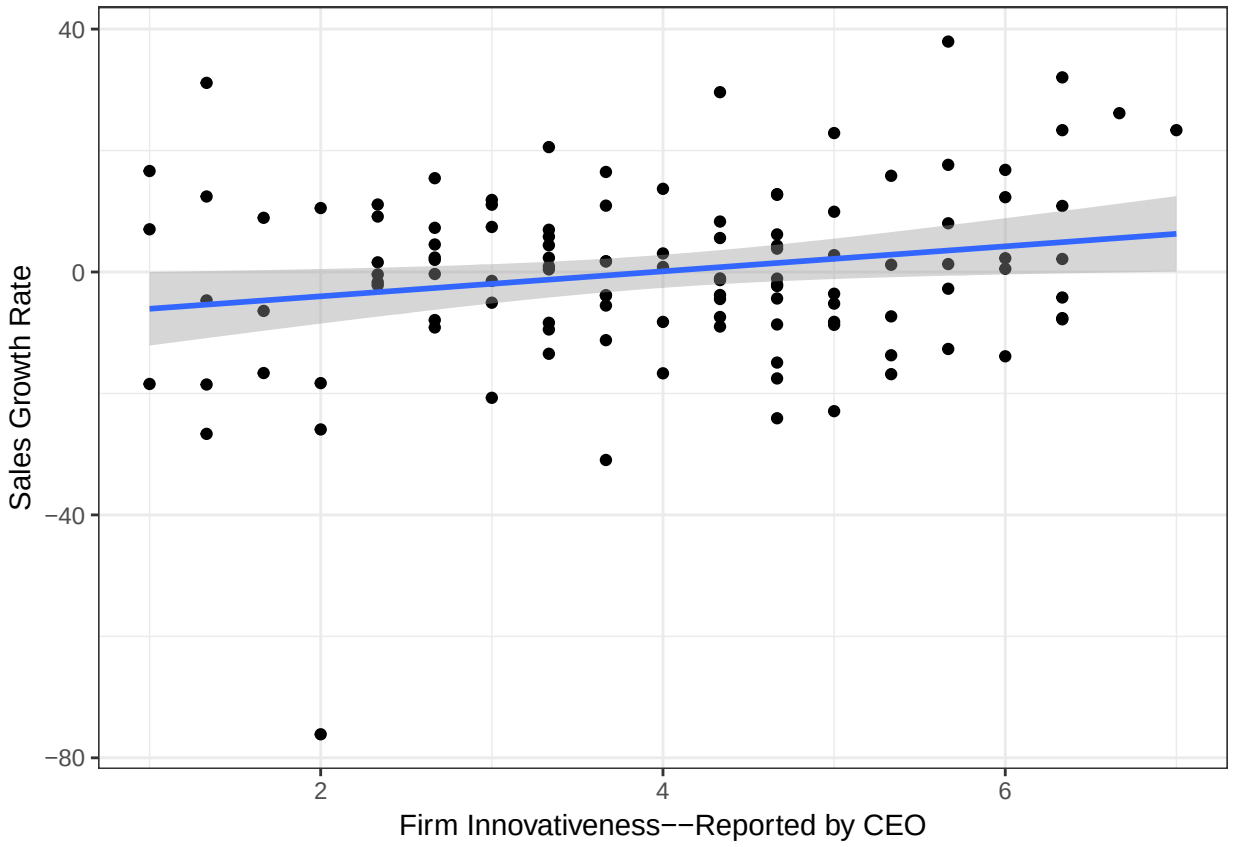
Load Data

```
innovation.df <- read_csv("DSOM5509.csv")
```

```
innovation.df <- innovation.df %>%
  mutate(myInnovation = ((INN1 + INN2 + INN3) / 3))
```

Visualization

```
linear.plot
```



Linear Model

```
linear.model <- lm(SGR ~ myInnovation, data = innovation.df)

summary(linear.model)
```

```
##
## Call:
## lm(formula = SGR ~ myInnovation, data = innovation.df)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -72.121  -8.302   0.650   9.077  36.519
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -8.1136     3.9048  -2.078   0.0400 *
## myInnovation   2.0566     0.9246   2.224   0.0281 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 14.66 on 112 degrees of freedom
##   (5 observations deleted due to missingness)
## Multiple R-squared:  0.0423, Adjusted R-squared:  0.03375
## F-statistic: 4.947 on 1 and 112 DF,  p-value: 0.02814
```