Assignment #3

3.

```
library(haven)
TEDS_2016 <- read_stata("https://github.com/datageneration/home/blob/master/DataProgramming/data/TEDS_2016.dta?raw=true")
```

4.

```
## Creating a function: regplot
install.packages("regplot")
library(regplot)
## Combine the lm, plot and abline functions to create a regression fit plot function
regplot<-function(x,y){
  fit=lm(y~x)
  plot(x,y)
  abline(fit,col="blue")
}
```

5.

```
library(ggplot2)
set.seed(123)

# Create a scatterplot with a regression line
ggplot(regplot, aes(x = x, y = y)) +
  geom_point() +  # Add points
  geom_smooth(method = "lm") +  # Add regression line
  labs(title = "Scatterplot with Regression Line",
       x = "Independent Variable",
       y = "Age")
```

6. There are far too many categories in the DV for the plot to be easily readable. We will need to run some more code to disperse the DV categories more evenly so that they are readable.

7. We can alter our linear regression model to better fit the data. We can change our model to a multiple linear regression to account for the DV categories that are hard to display.