

```
#Austin Dickerson
```

```
#Inclass 9-2
```

```
getwd()
```

```
setwd("C:\\Users\\Austin\\Desktop\\Virginia Tech\\CS 3654\\CMDA")
```

```
load('fdata.RData')
```

```
attach(final)
```

```
final$gp <- runif(dim(final)[1])
```

```
testSet <- subset(final, final$gp <= 0.1)
```

```
trainSet <- subset(final, final$gp > 0.1)
```

```
rm(final)
```

```
install.packages("MASS")
```

```
library(MASS)
```

```
attach(trainSet)
```

```
fit <- lm(disorder ~ som1 + som2 + som3 + som4 + som5 + som6 + som7 + som8 + som9 + som10 +  
som11 + som12 + som13 + som14 + age + gender + location + ethnicity + coder)
```

```
step <- stepAIC(fit, direction = "both")
```

```
step
```

```
step$ssc
```

```
rm(step)
```

```
rm(fit)
```

```
fit1 <- lm(disorder ~ som1 + som2 + som3 + som4 + som5 + som6 + som7 + som8 + som9 + som10 +  
som11 + som12 + som13 + som14 + age + gender + location + ethnicity + coder)
```

```
testSet$casualpred <- predict(fit1, newdata = testSet)
```

```
head(testSet)
```

```
library(ggplot2)
```

```
ggplot(data = testSet, aes(x = casualpred, y = casual)) +
```

```
geom_point(color = "red")+
```

```
geom_line(aes(x = casual, y = casual), color = "blue")
```

#This model is not very accurate, the “line of best fit” doesn’t really match up with the scatterplot dots