R Homework Number 5

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October 30th, 2018

Statistics 5193

*Note: this document was created using R Markdown.

R code input will be of the form:

```
"this is R code input"
```

R code output will be of the form

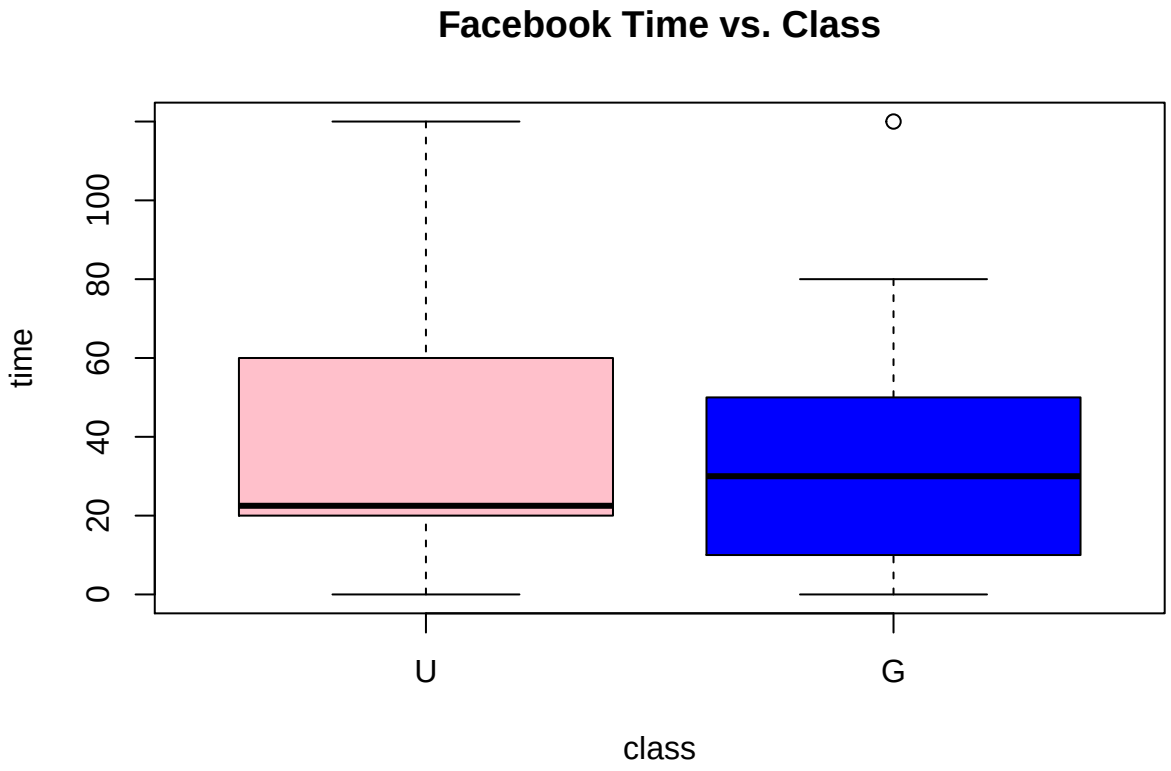
```
## [1] "this is R code output"
```

Question 1

```
library(readxl)
StudentData <- read_excel("~/Downloads/StudentData.xlsx")
```

```
demo("colors")
help(boxplot)
```

```
boxplot(StudentData$Fbtime ~ StudentData$Class,
        names = c("U", "G"),
        col = c("pink", 'blue'),
        ylab = "time",
        xlab = 'class',
        main = 'Facebook Time vs. Class')
```



Question 2

```
StudentDataTrim <- StudentData[-23,]
StudentDataOut <- StudentData[23,]

gender <- as.factor(StudentDataTrim$Gender)


plot(StudentDataTrim$Introvert ~ StudentDataTrim$Fbtime,
     main = 'FB vs. Introversion vs. Gender',
     ylab = 'Introversion',
     xlab = 'FB time',
     pch = StudentDataTrim$Gender,
     col = c("pink", "blue")[gender],
     )

points(StudentDataOut$Introvert ~ StudentDataOut$Fbtime,
       pch = 'O')

with_outlier <- lm(StudentData$Introvert ~ StudentData$Fbtime)
without_outlier <- lm(StudentDataTrim$Introvert ~ StudentDataTrim$Fbtime)

abline(with_outlier, lty = 2, col = "slateblue")
abline(without_outlier, col = "firebrick")
```