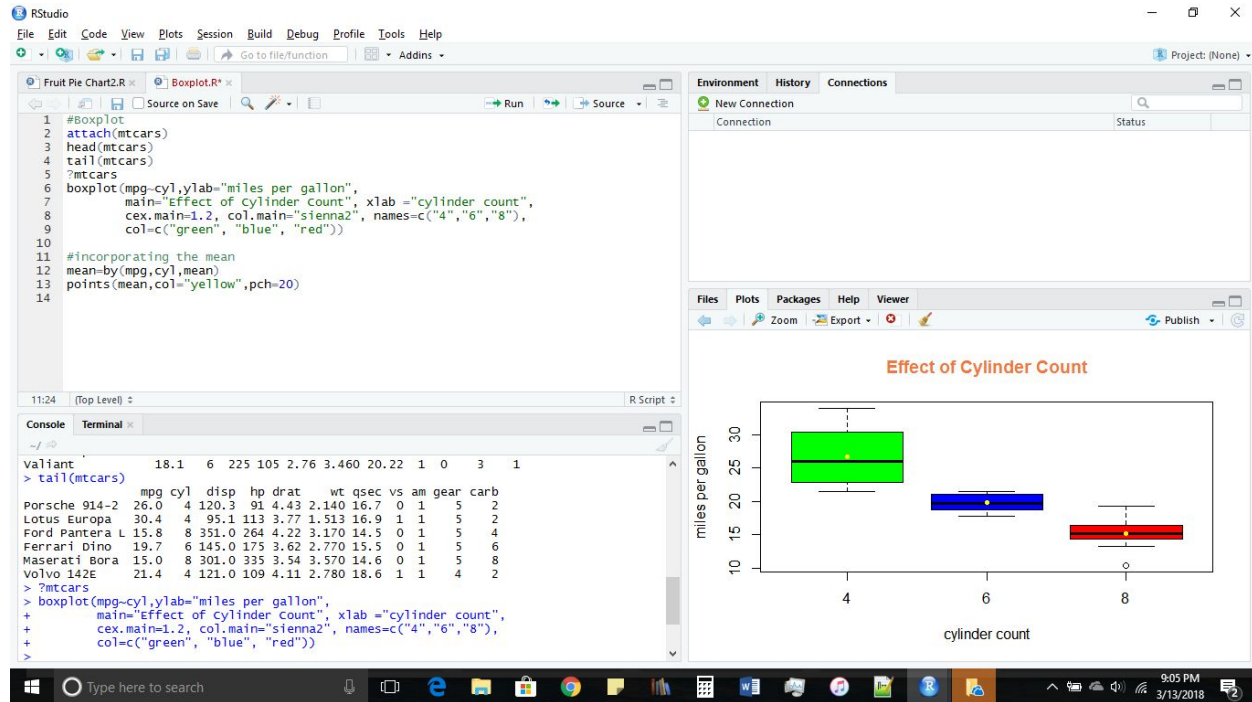Sarah Davis
Concept Assignment

#Boxplot
attach(mtcars)
head(mtcars)
tail(mtcars)
?mtcars
boxplot(mpg~cyl,ylab="miles per gallon",
    main="Effect of Cylinder Count", xlab ="cylinder count",
    cex.main=1.2, col.main="sienna2", names=c("4","6","8"),
   col=c("green", "blue", "red"))

#incorporating the mean
mean=by(mpg,cyl,mean)
points(mean,col="yellow",pch=20)

The vehicles with four cylinders have better gas mileage than those with six or eight cylinders. As the cylinders increase, miles per gallon decreases. The yellow dot indicates the mean of miles per gallon for each cylinder-type of vehicle. The four cylinder vehicles have a larger range as compared to the six and eight cylinder vehicles. The six cylinder vehicles plot has the smallest range.

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Concept Assignment
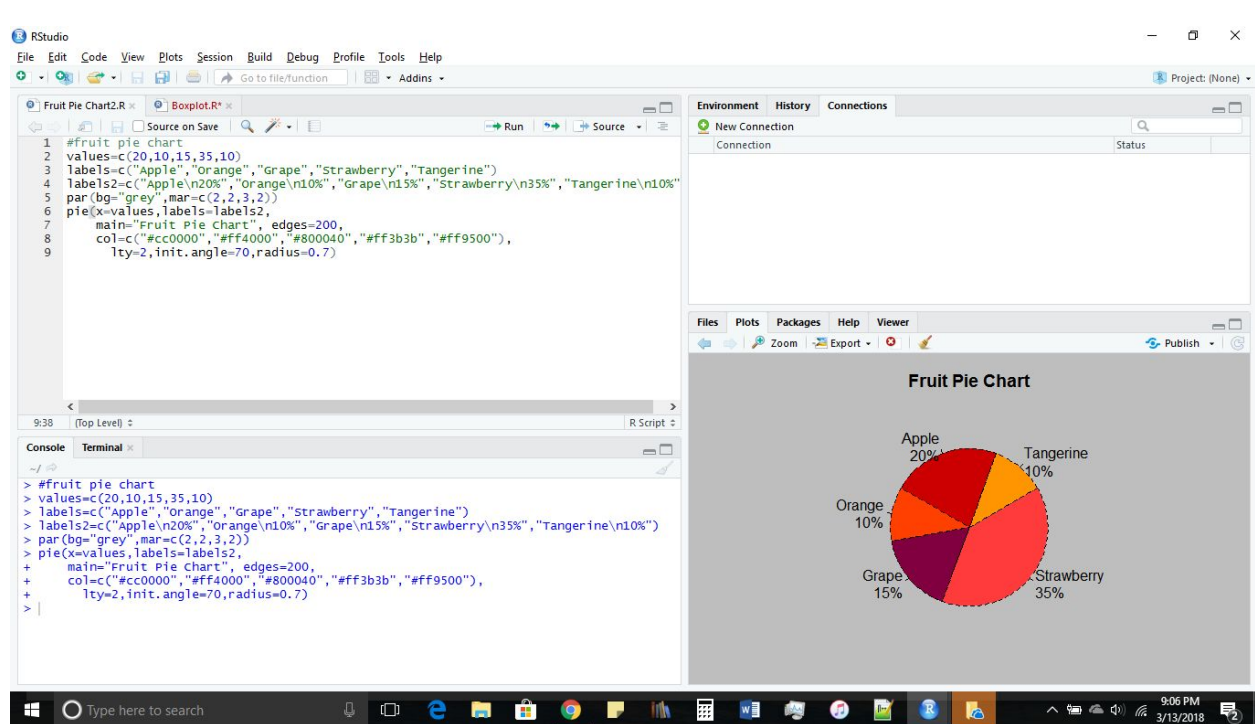
```
#fruit pie chart
values=c(20,10,15,35,10)
labels=c("Apple","Orange","Grape","Strawberry","Tangerine")
labels2=c("Apple\n20%","Orange\n10%","Grape\n15%","Strawberry\n35%","Tangerine\n10%")
par(bg="grey",mar=c(2,2,3,2))
pie(x=values,labels=labels2,
    main="Fruit Pie Chart", edges=200,
    col=c("#cc0000","#ff4000","#800040","#ff3b3b","#ff9500"),
      lty=2,init.angle=70,radius=0.7)
```