# Assignment 3 - GGPlot2

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In the previous two assignments we have used the data which was:

1. Available as a part of the base R installation (Assignment 1)
2. Dateset which is available in external packages such as MASS (Assignment 2)

In this 3rd assignment we will import data from as .csv file which I created using MS Excel. Download the file ICSales.csv from the resources listed in this lecture.

Import this file in R Studio, using File > Import Dataset > From CSV ...

Following code will run and save this dataset in R.

```
library(readr)
ICSales <- read_csv("D:/_R Graphics/R Markdowns/ICSales.csv")
# The path shown above will change on the location where you saved the CSV
file
View(ICSales)
```

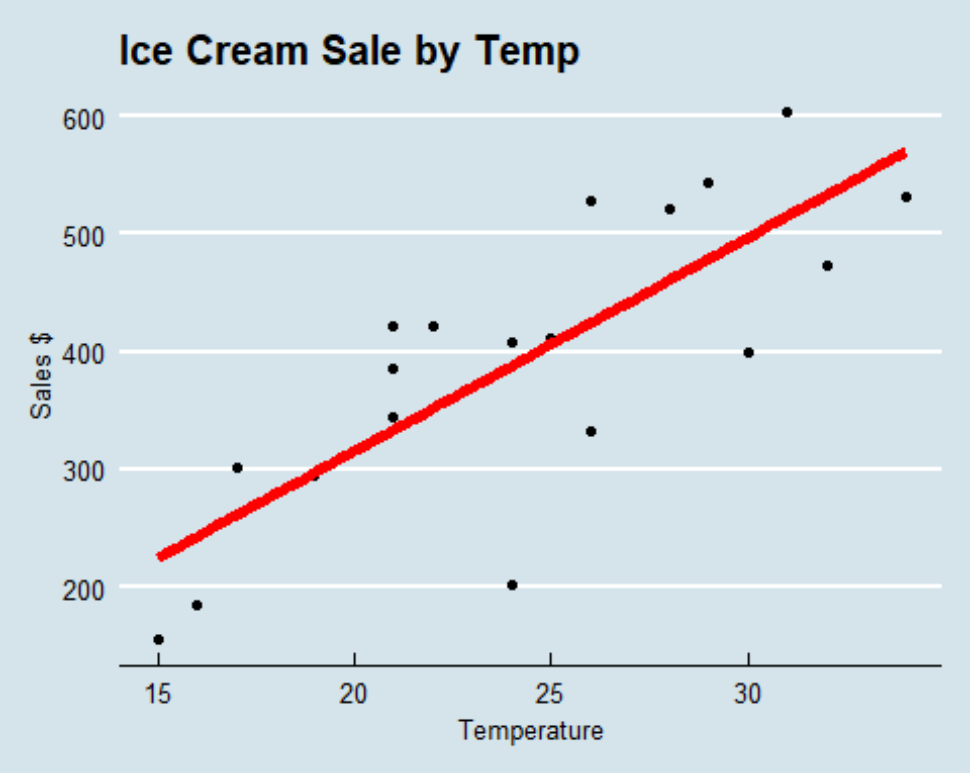
## Question 1:

Using the GGPlot2 command, plot the following Scatter Plot: (Dataset used for this plot is **ICSales** , which you imported above)

Theme used is theme_economist available in **ggthemes** package. You will need to install (if you have not yet) and load this package.

```
library(ggplot2)
library(ggthemes)

ggplot(data = ICSales, aes(x = temp, y = sales)) + geom_point() +
theme_economist() + labs(title= "Ice Cream Sale by Temp", y="Sales $", x =
"Temperature") + geom_smooth(method = "lm", se= FALSE, color = "red", size =
2)
```

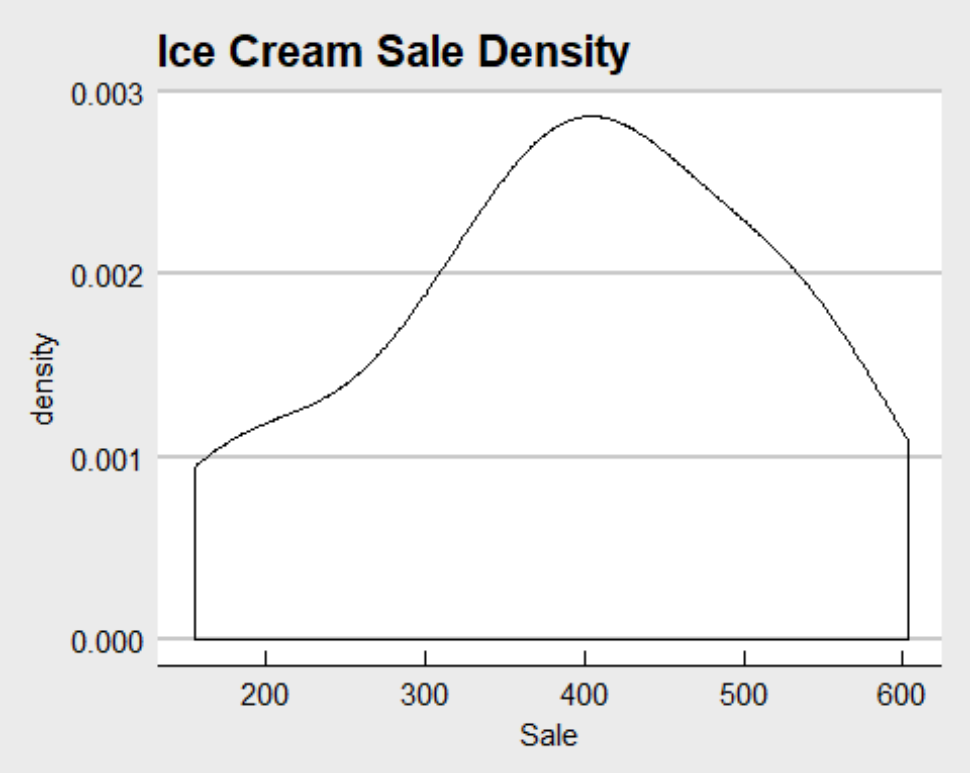



## Question 2:

Using the same dataset ICSales, plot the density distribution of sales.

Theme used is theme_economist_white available in **ggthemes** package. You will need to install (if you have not yet) and load this package.

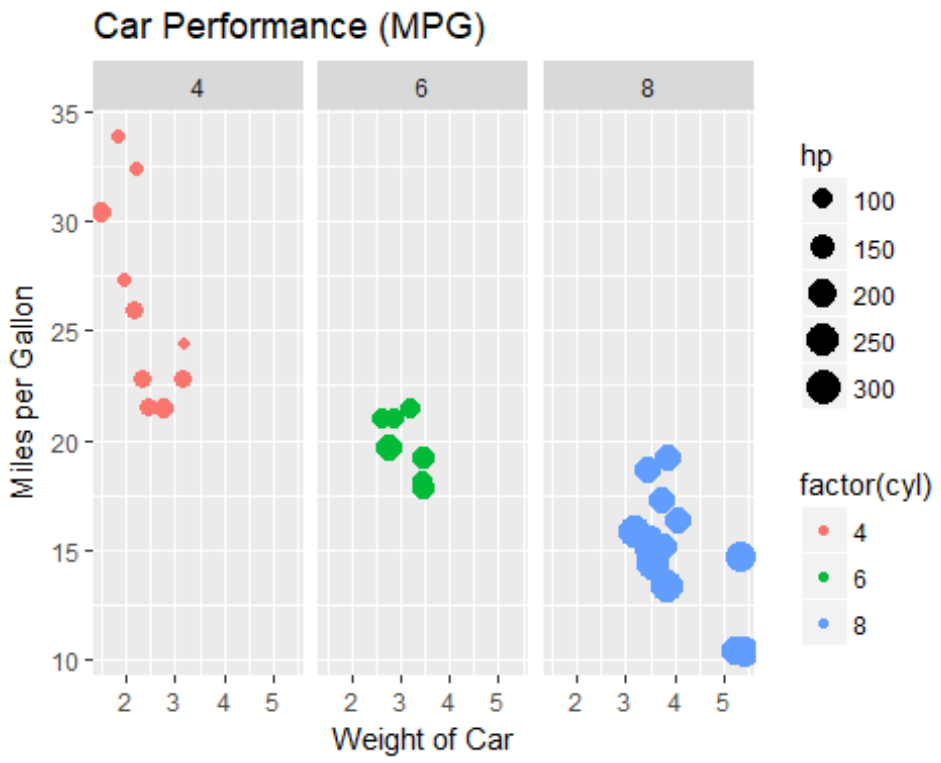
```
ggplot(data = ICSales, aes(sales)) + geom_density() + theme_economist_white()
+ labs(title= "Ice Cream Sale Density", x = "Sale")
```




## Question 3:

Lets use the **mtcars** dataset available in base R package and plot the following:

```
ggplot(data = mtcars,aes(x=wt,y=mpg,col=factor(cyl), size = hp)) +
geom_point() + facet_grid(~cyl) + labs(title= "Car Performance (MPG)", x =
"Weight of Car", y = "Miles per Gallon")
```


Car Performance (MPG)
4
6
8
35
30
25
20
15
10
Miles per Gallon
2
3
4
5
Weight of Car
hp
100
150
200
250
300
factor(cyl)
4
6
8