Exercise_4-3_Week_7-8

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Load Libraries

```
library(ggplot2)
library(stringr)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(readr)
library(tidyr)
library(readxl)
```

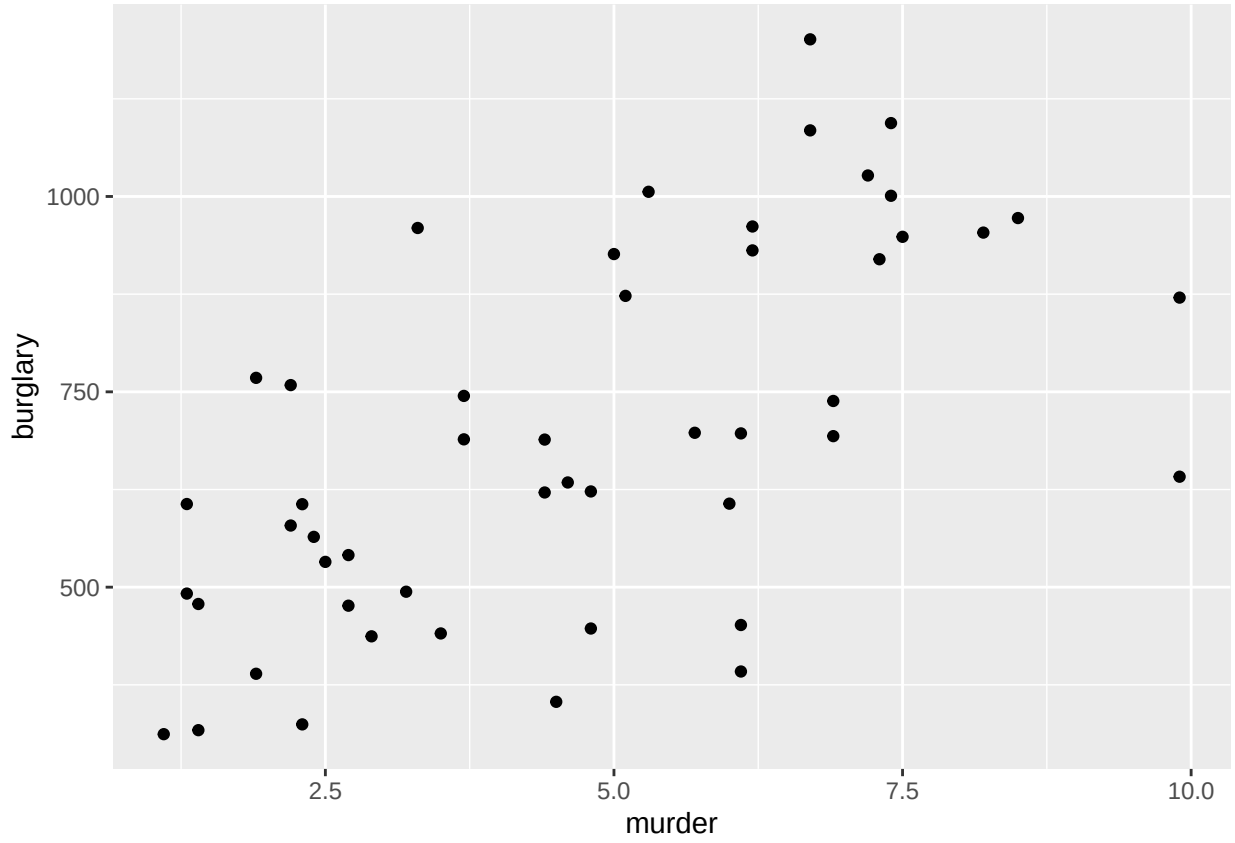
Load data

```
crimerate <- read_excel('C:/Users/Tushar/Documents/Bellevue_University/DSC_640_Class/Week_7_8/crimerates
```

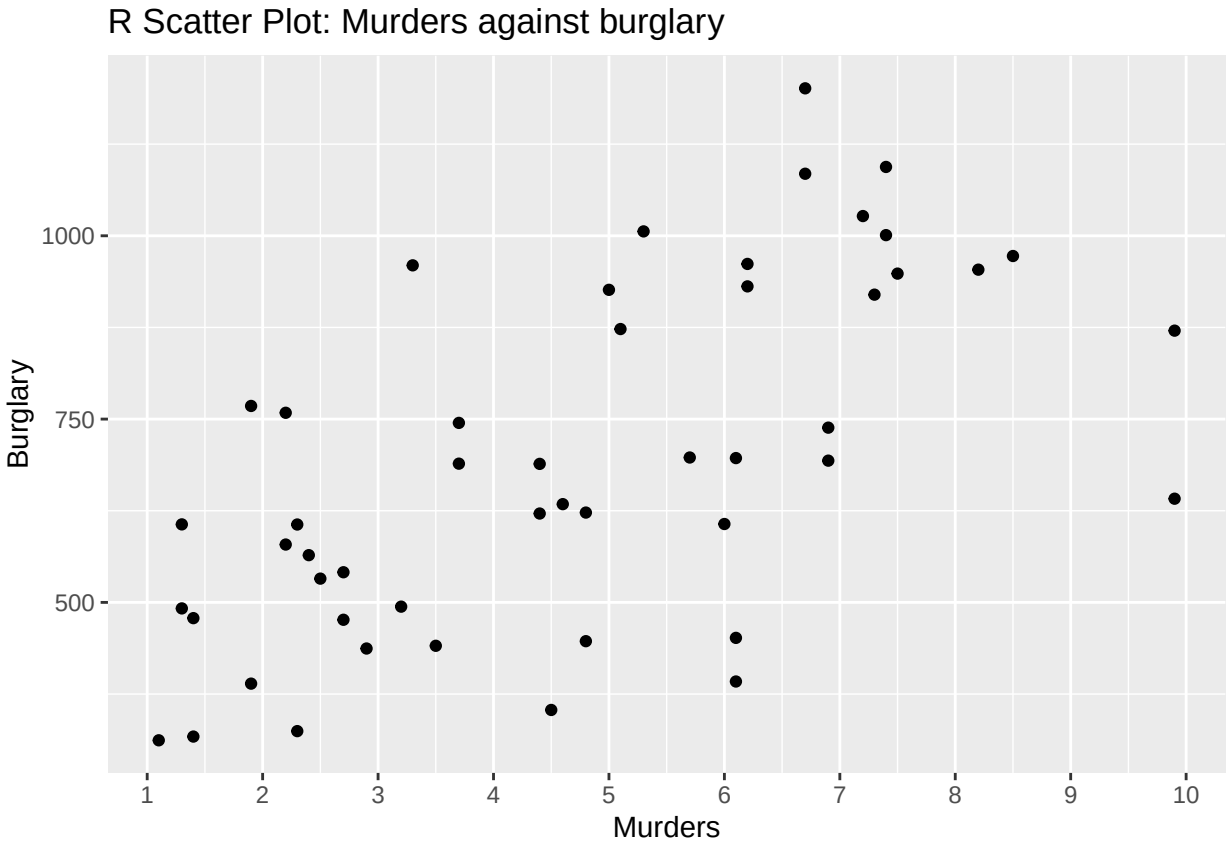
Scatter Plot

```
my_plot <- ggplot(crimerate, aes(x = murder, y = burglary)) +
  geom_point()


my_plot
```

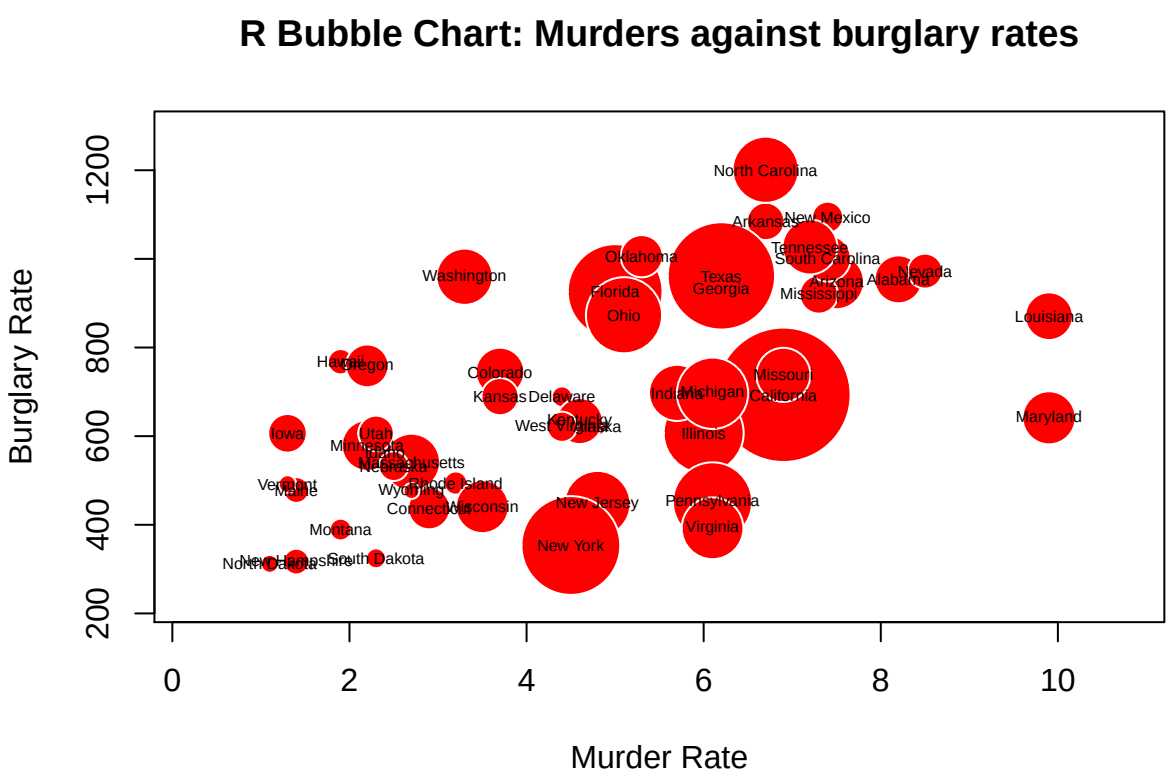



```
my_plot +
  scale_x_continuous(breaks = seq(0, 10, by = 1)) +
  scale_y_continuous(breaks = seq(0, 1500, by = 250)) +
  labs(
    x = 'Murders',
    y = 'Burglary',
    title = 'R Scatter Plot: Murders against burglary'
    )
```



Blubble Chart

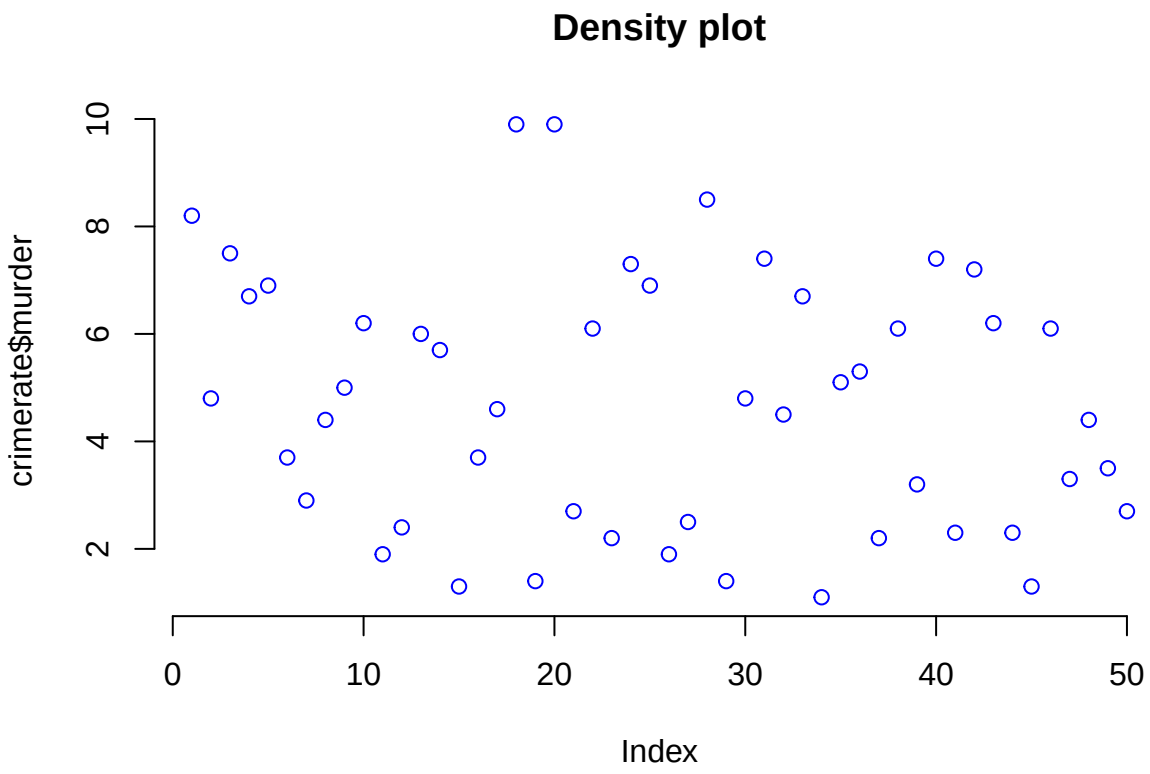
```
radius2 <- sqrt( crimerate$population/ pi )
symbols(crimerate$murder, crimerate$burglary, circles=radius2, inches=0.35, fg='white', bg='red', xlab=
        main = 'R Bubble Chart: Murders against burglary rates') +
  text(crimerate$murder, crimerate$burglary, crimerate$state, cex=0.5)
```



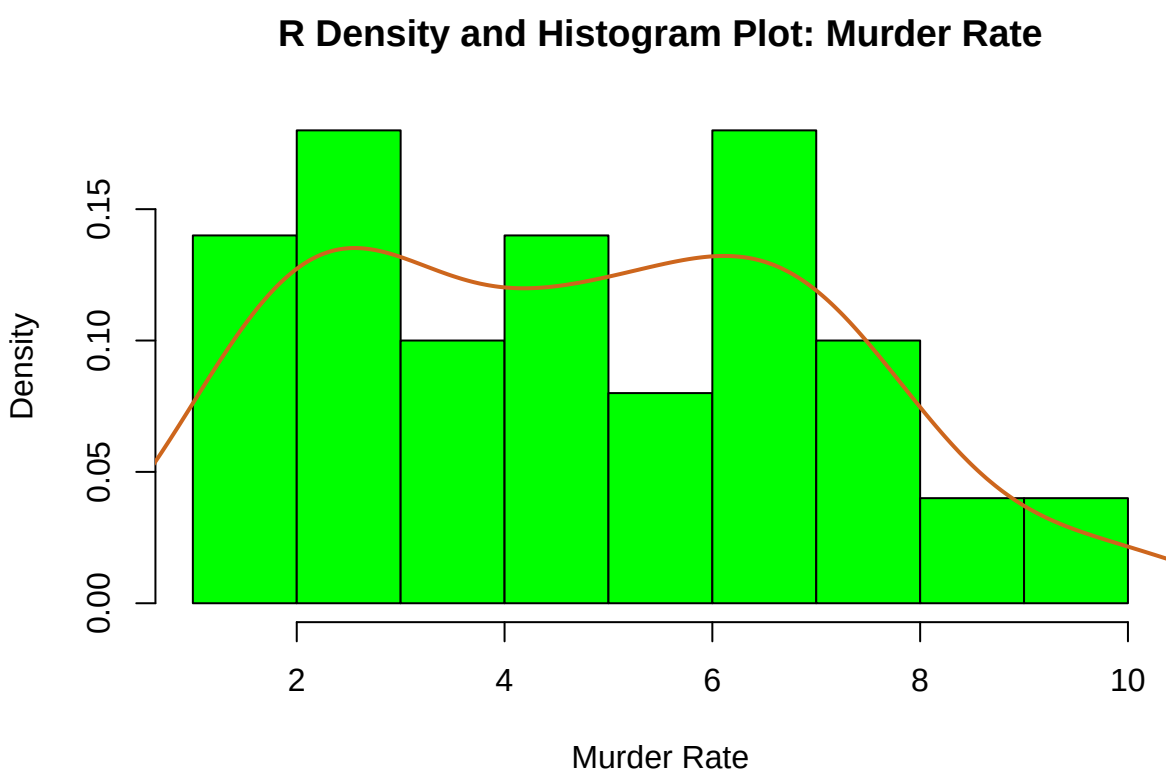

```
## integer(0)
```

Density Chart

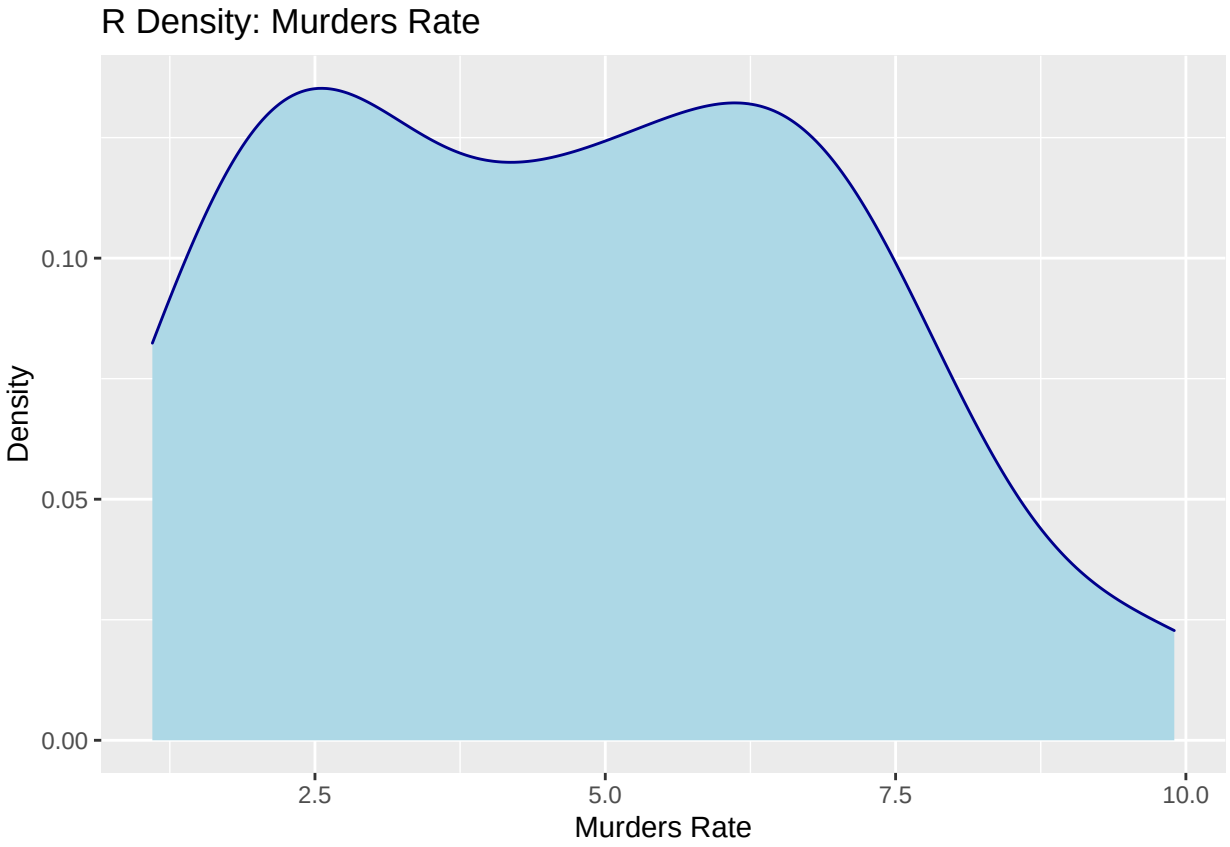
```
plot(crimerate$murder, frame = FALSE, col = "blue",main = "Density plot")
```




```
#Histogram
hist(crimerate$murder,
     col="green",
     border="black",
     prob = TRUE,
     xlab = "Murder Rate",
     main = "R Density and Histogram Plot: Murder Rate")
#Denisity line
lines(density(crimerate$murder),
      lwd = 2,
      col = "chocolate3")
```




```
# Change line color and fill color
ggplot(crimerate, aes(x=murder))+
  geom_density(color="darkblue", fill="lightblue")+
  labs(
    x = 'Murders Rate',
    y = 'Density',
    title = 'R Density: Murders Rate')
```


R Density: Murders Rate
Density
0.10
0.05
0.00
2.5
5.0
7.5
10.0
Murders Rate