Assignment3.2

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```r
# import necessary libraries
library(ggplot2)
library(dplyr)

# load dataset
data <- read.csv("crimerates-by-state-2005.csv")

# The section below is to display the Scatterplot

# scatterplot: murder rate vs robbery rate
ggplot(data, aes(x = murder, y = robbery)) +
  geom_point() +
  ggtitle("R - Scatterplot: Murder Rate vs Robbery Rate") +
  xlab("Murder Rate (per 100,000 inhabitants)") +
  ylab("Robbery Rate (per 100,000 inhabitants)") +
  theme_minimal()
```

R – Scatterplot: Murder Rate vs Robbery Rate
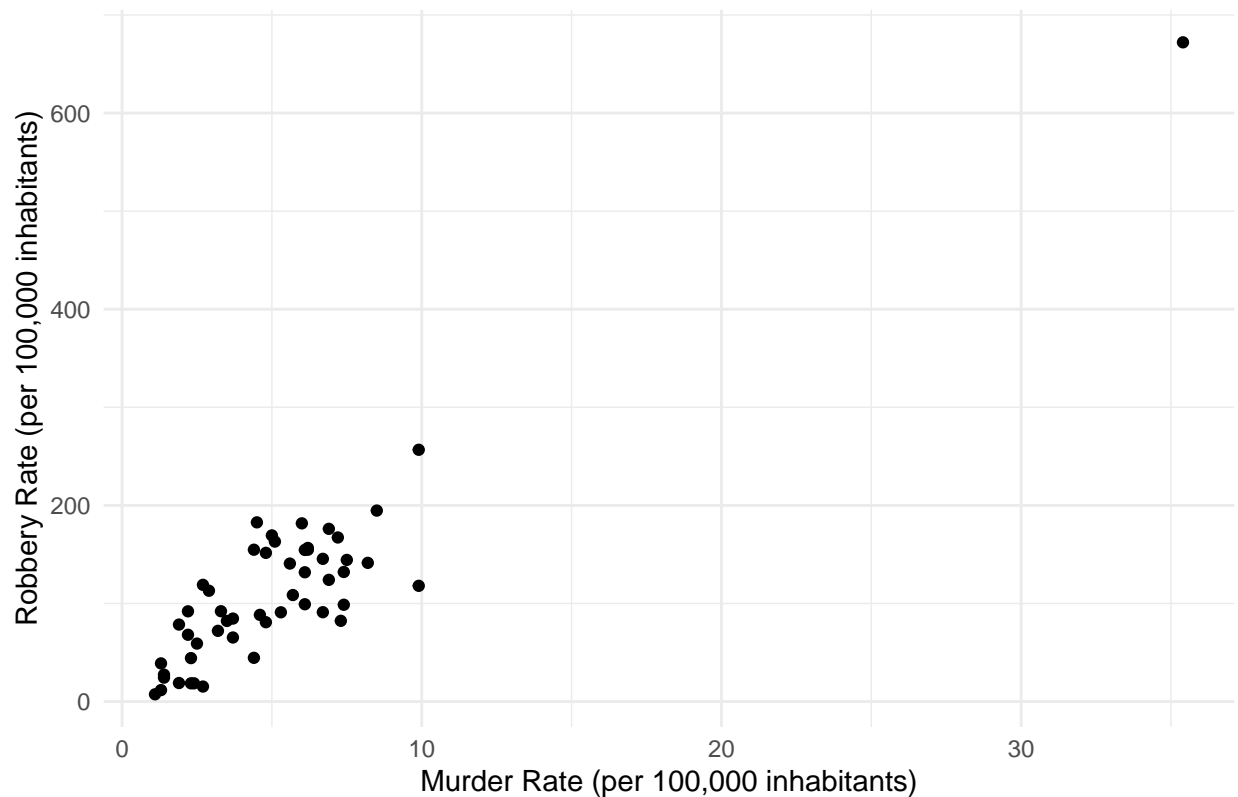

```
# The section below is to display the Bubble chart

# bubble chart: aggravated assault rate vs burglary rate with bubble size representing population
ggplot(data, aes(x = aggravated_assault, y = burglary, size = population)) +
  geom_point(alpha = 0.5) +
  ggtitle("R - Bubble Chart: Aggravated Assault Rate vs Burglary Rate") +
  xlab("Aggravated Assault Rate (per 100,000 inhabitants)") +
  ylab("Burglary Rate (per 100,000 inhabitants)") +
  scale_size(range = c(1, 15)) +
  theme_minimal()
```

R – Bubble Chart: Aggravated Assault Rate vs Burglary Rate
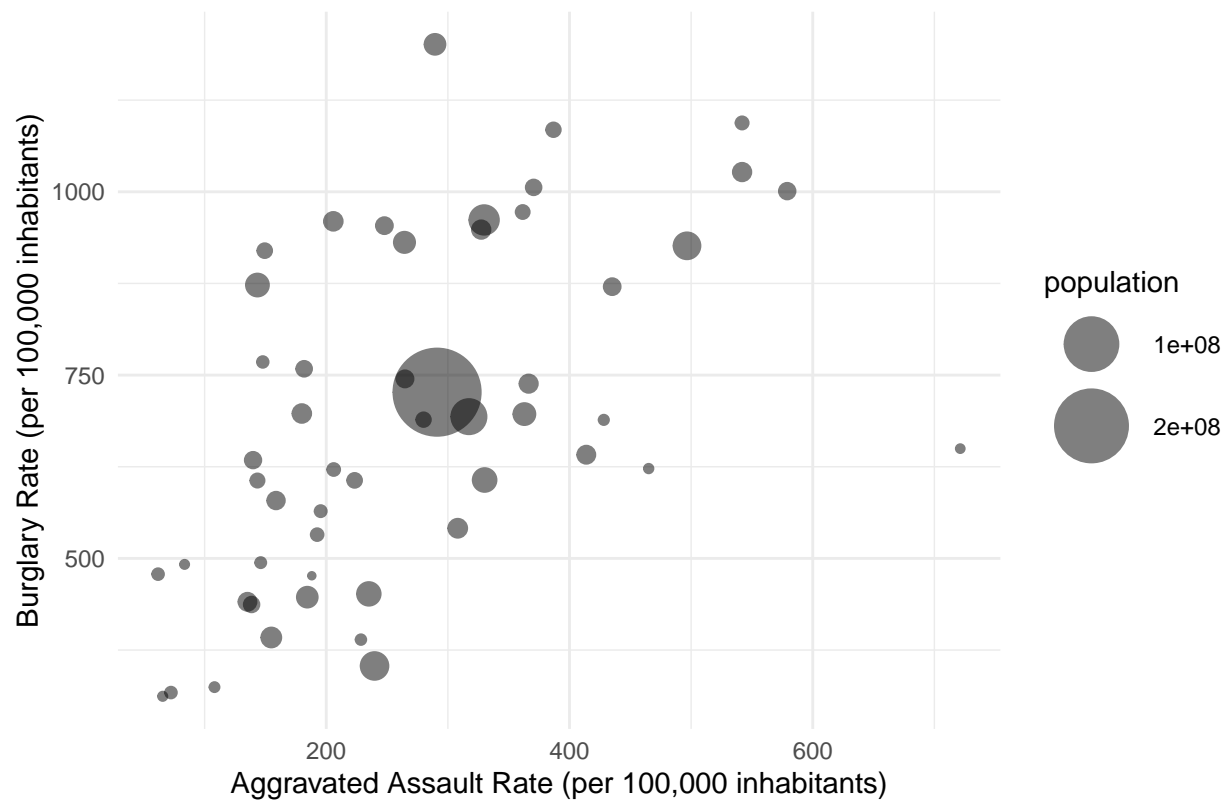

```r
# The section below is the density plot

# density plot: forcible rape rate
ggplot(data, aes(x = forcible_rape)) +
  geom_density(fill = "blue", alpha = 0.5) +
  ggtitle("R - Density Plot: Forcible Rape Rate") +
  xlab("Forcible Rape Rate (per 100,000 inhabitants)") +
  ylab("Density") +
  theme_minimal()
```

R – Density Plot: Forcible Rape Rate