ggplot2 demo

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# 1. Air Quality

[Figure 1](#fig-airquality) further explores the impact of temperature on ozone level.

library(tidyverse)  
library(ggplot2)  
  
ggplot(airquality, aes(Temp, Ozone)) +   
 geom\_point() +   
 geom\_smooth(method = "loess"  
)

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| --- |
| Figure 1: Temperature and ozone level. |

# 2. mpg data

## 2.1 mpg scatter plot

[Figure 2](#fig-scatterplot) shows correlation between highway and city mileages.

ggplot(mpg, aes(hwy, cty, color=cyl)) +   
 geom\_point(alpha=0.5, size=2) +  
 scale\_color\_viridis\_c() +  
 theme\_minimal()

|  |
| --- |
| Figure 2: City and highway mileage for 38 popular models of cars. |

## 2.2 the mpg data as table

There are 32 observations in our data.

# A tibble: 32 × 4  
# Groups: manufacturer [15]  
 manufacturer cyl avg\_cty avg\_hwy  
 <chr> <int> <dbl> <dbl>  
 1 audi 4 19.1 28.1  
 2 audi 6 16.4 25.3  
 3 audi 8 16 23   
 4 chevrolet 4 20.5 28.5  
 5 chevrolet 6 17.7 27   
 6 chevrolet 8 13.6 19.9  
 7 dodge 4 18 24   
 8 dodge 6 15 20.7  
 9 dodge 8 11.6 15.7  
10 ford 6 15.3 20.7  
# ℹ 22 more rows

Hypothetical table\_viewer will show your tables in a much better way.

table\_viewer(mpg)

# 3. Formulas

you can have formulas in your document

# 4. Citations

We’re going to do this analysis using literate programming [@Knuth1984].

# 5. Layout

## 5.1 Callouts

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| Note |
| Here’s some information |