

↑ {
 hrow (data)
 str (data)

{
 frame = x, y
 layers.
 scales:
 facet
 or theme

fill,
 Note: bin width, color
 (add after geom)

1. Univariate

- distribution
1. histogram (single variable)
 2. box plot (check distribution and outlier)
 3. density (smoothed version of a histogram)
 4. bar

2. Bivariate

1. Scatterplot: relationship between 2 variable, point

ggplot (---, aes(x=---, y=---)) +
 geom_point()

2. Line plot (for time-series)

3. correlation heatmap, for correlations between 2 contin vari

library (corrplot)

corr-matrix <- cor (data[,c ('var1', '2')])

corrplot (corr-matrix)

{
 quantitative
 (need, new
 axis)
 categorical
 (way of group)
 eg: color

3. Multi, V's

- 1) pairs (data)

(method = "m")

eg: Simpson's paradox
 using facet

4. Spatial V's

- 1) Leaflet (for interactive maps)

leaflet (data) |>

addTiles () |>

addMarkers (lng = ~longitude, lat = ~latitude)

↓

ggplot (data) +

geom_sf ()

eg: ggplot (data) +

geom_sf +

geom_point (data = , aes

theme map

Types of spatial V's
 point Map: location

contour Map: density

choropleth map: out come
 for different region