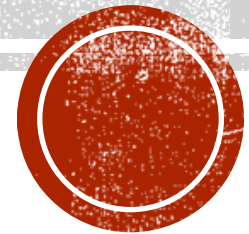


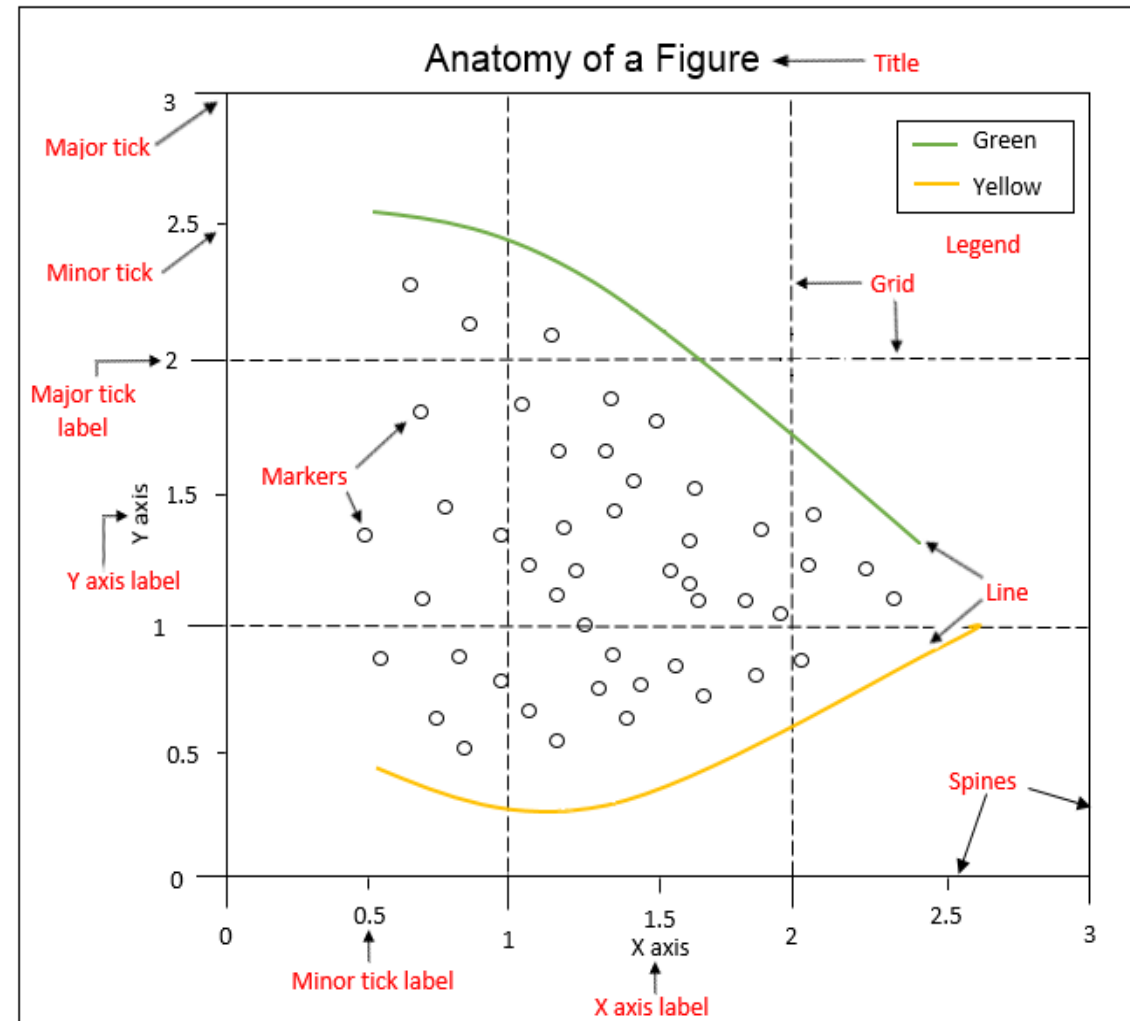
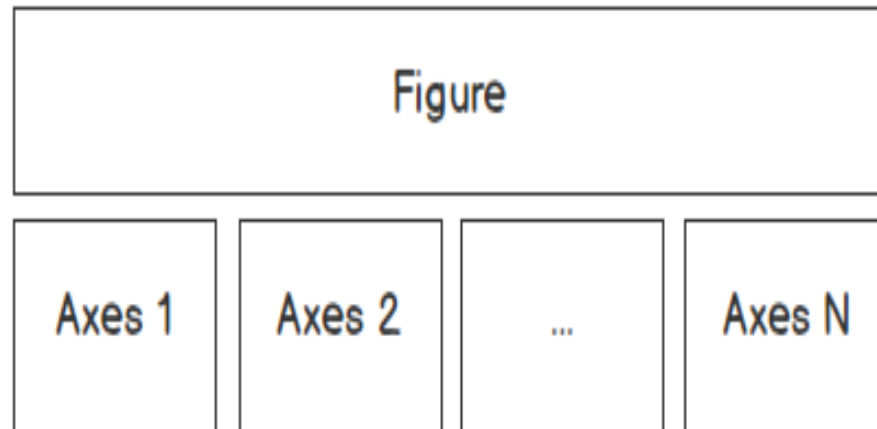
# DATA VISUALIZATION

Dr.V.Ajantha Devi

Research Head

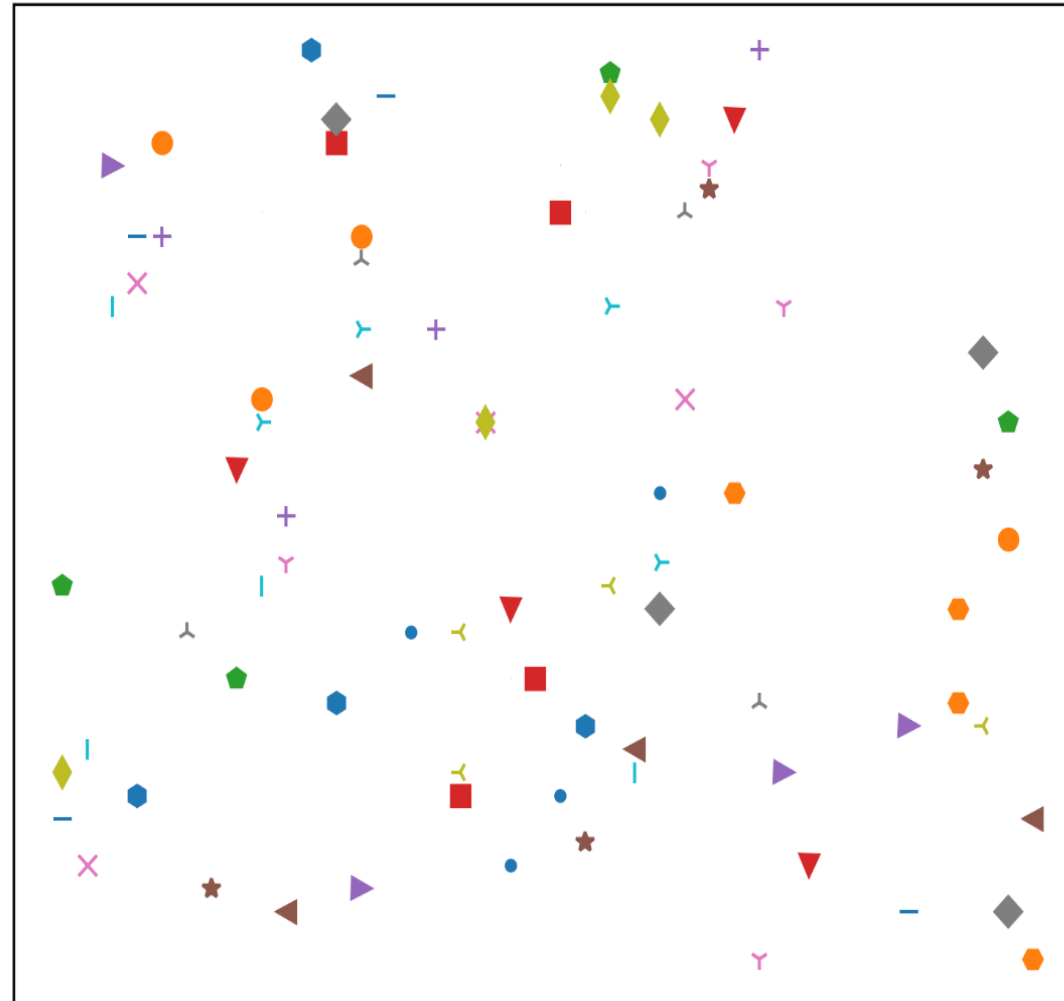


# PLOTS IN MATPLOTLIB



# FORMAT STRINGS

Colors	Color
'b'	blue
'r'	red
'g'	green
'm'	magenta
'c'	cyan
'k'	black
'w'	white
'y'	yellow



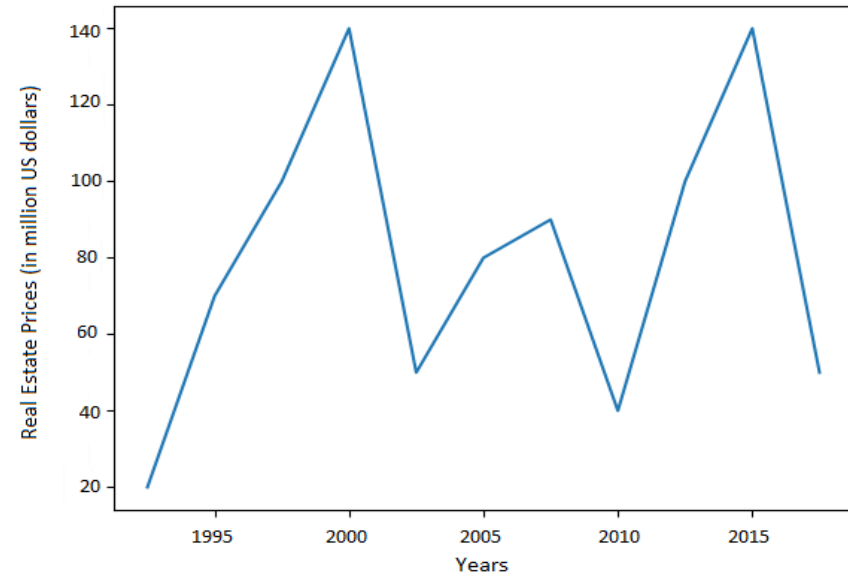
• point marker	= '.'
○ circle marker	= 'o'
• pixel marker	= ','
▼ triangle_down marker	= 'v'
► triangle_right marker	= '>'
◄ triangle_left marker	= '<'
Y tri_down marker	= '1'
^ tri_up marker	= '2'
← tri_left marker	= '3'
→ tri_right marker	= '4'
⬡ hexagon1 marker	= 'h'
⬢ hexagon2 marker	= 'H'
⬠ pentagon marker	= 'p'
■ square marker	= 's'
+ plus marker	= '+'
★ star marker	= '*'
✕ x marker	= 'x'
◆ diamond marker	= 'D'
◇ thin_diamond marker	= 'd'
vline marker	= ' '
- hline marker	= '-'

# DATA VISUALIZATION

- **Comparison Plots**
- **Relation Plots**
- **Composition Plots**
- **Distribution Plots**
- **Geoplots**

# COMPARISON PLOTS

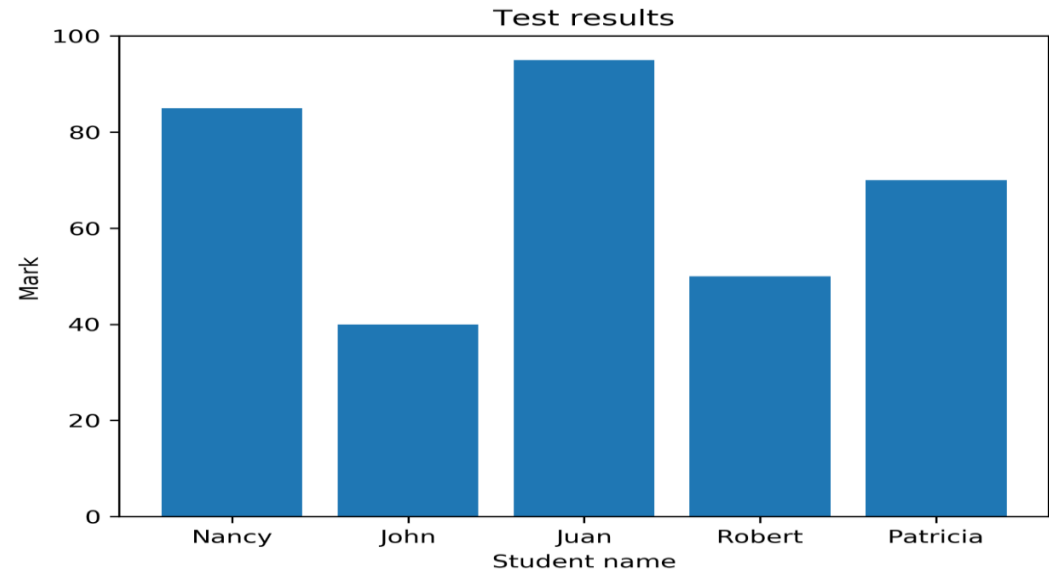
- **Line Chart**
- **Bar Chart**
- **Radar Chart**



- **Uses**
- **Design Practices**

# COMPARISON PLOTS

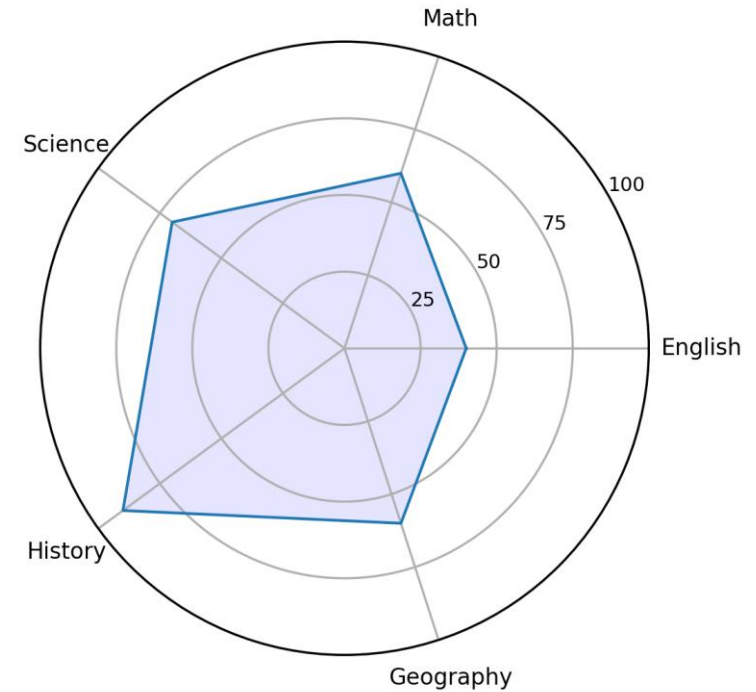
- Line Chart
- **Bar Chart**
- Radar Chart



- Uses
- Design Practices

# COMPARISON PLOTS

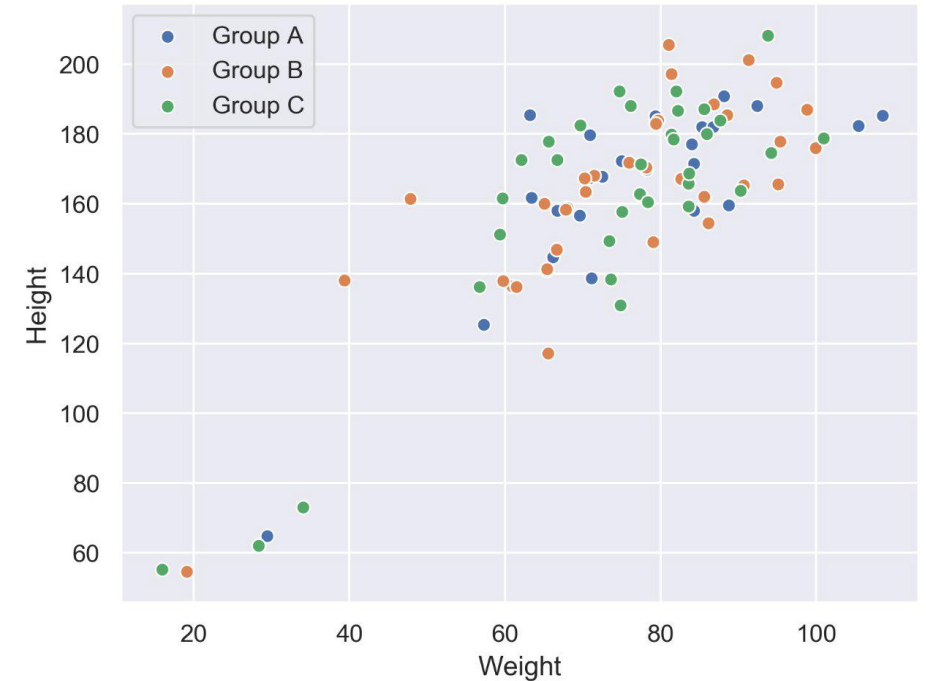
- Line Chart
- Bar Chart
- **Radar Chart**



- Uses
- Design Practices

# RELATION PLOTS

- **Scatter Plot**
- Variants: Scatter Plots with Marginal Histograms
- Bubble Plot
- Correlogram
- Heatmap

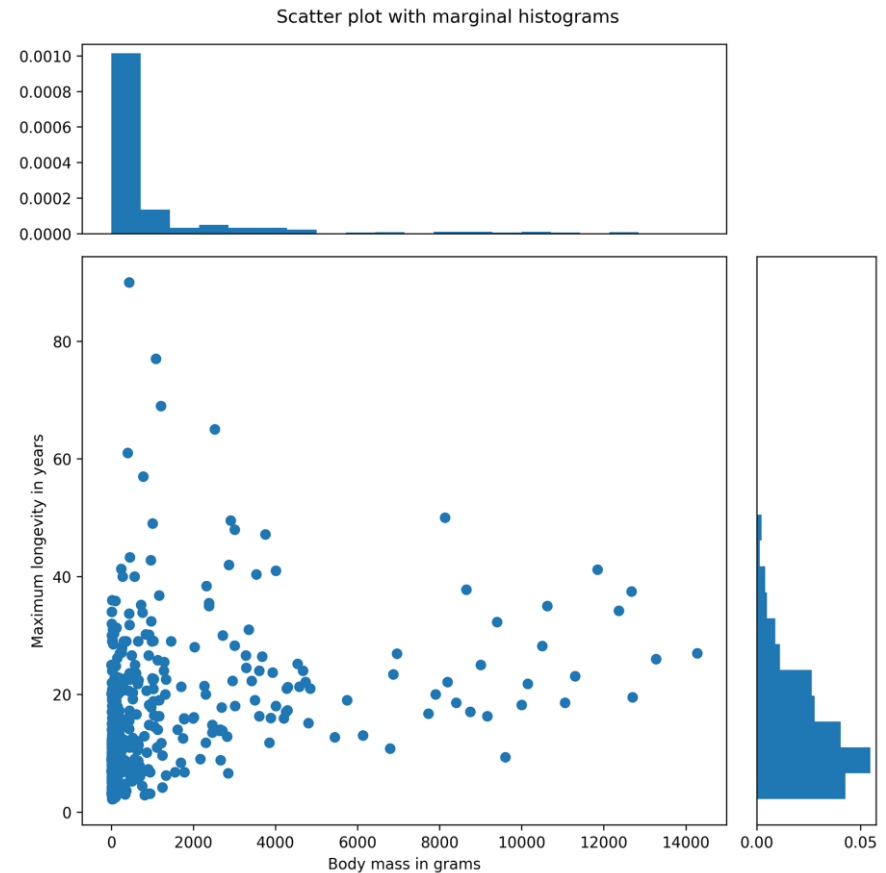


- Uses
- Design Practices



# RELATION PLOTS

- Scatter Plot
- **Variants: Scatter Plots with Marginal Histograms**
- Bubble Plot
- Correlogram
- Heatmap



- Uses
- Design Practices

# RELATION PLOTS

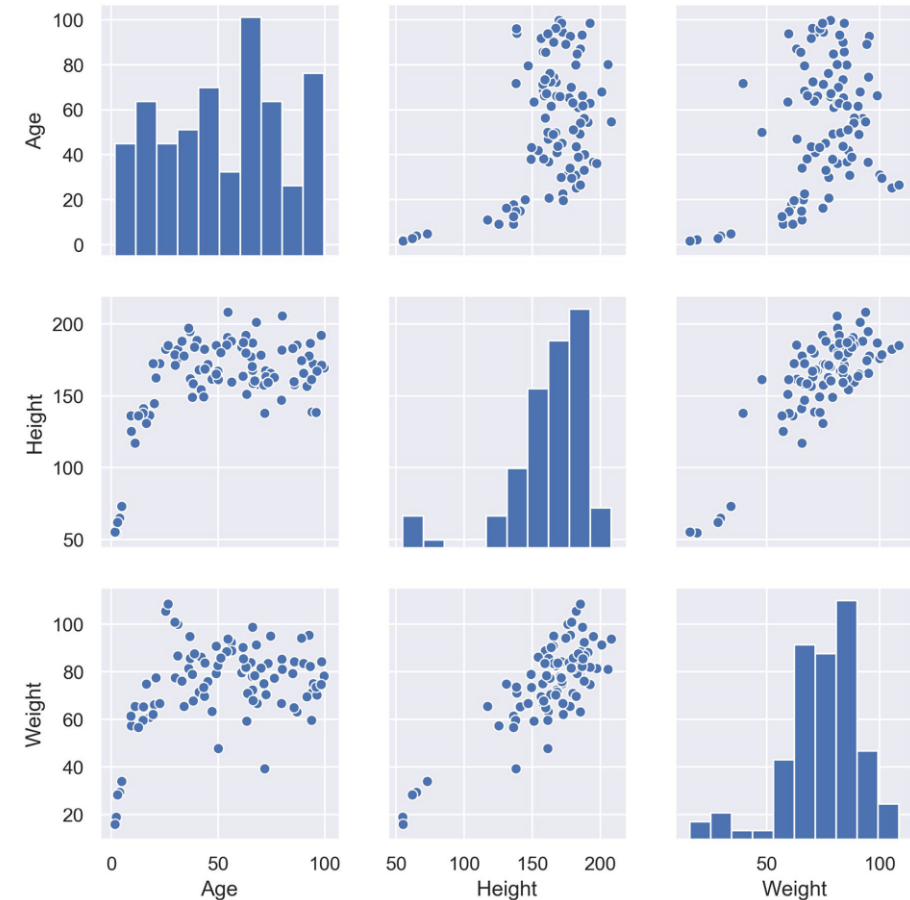
- Scatter Plot
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- **Bubble Plot**
- Correlogram
- Heatmap



- Uses
- Design Practices

# RELATION PLOTS

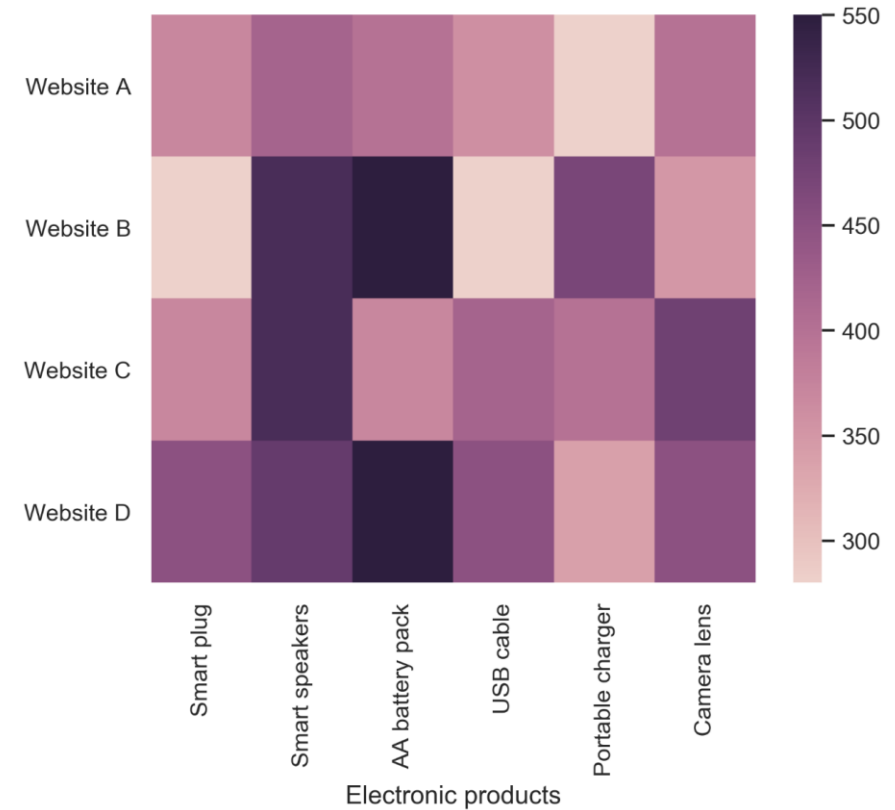
- Scatter Plot
- Variants: Scatter Plots with Marginal Histograms
- Bubble Plot
- **Correlogram**
- Heatmap



- Uses
- Design Practices

# RELATION PLOTS

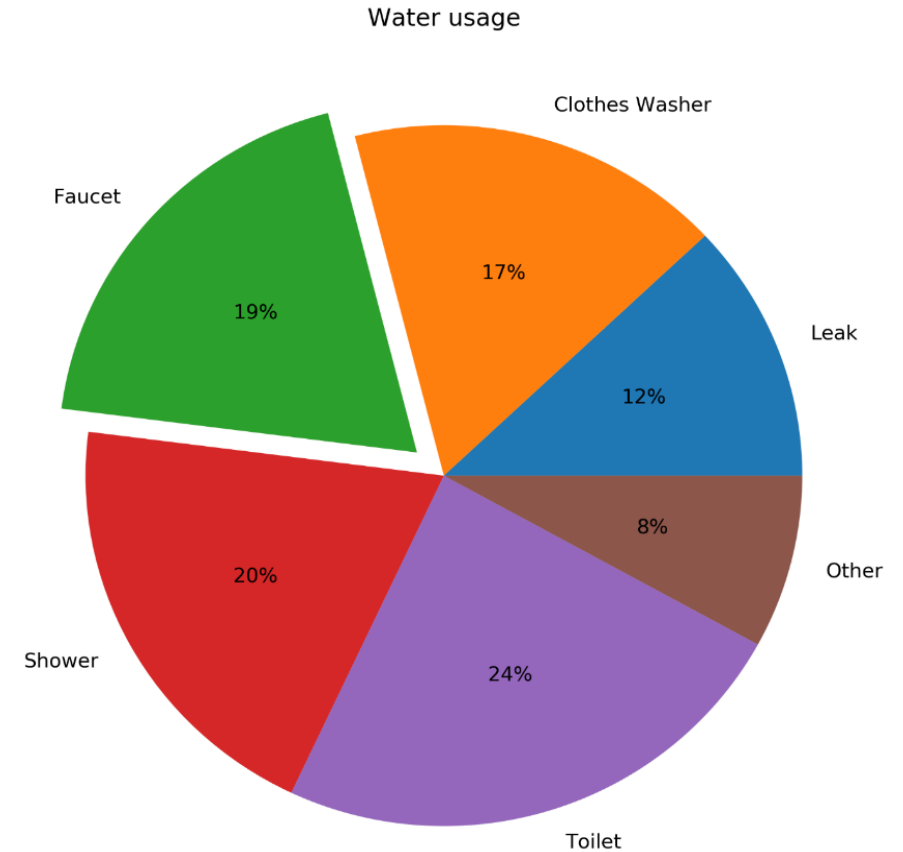
- Scatter Plot
- Variants: Scatter Plots with Marginal Histograms
- Bubble Plot
- Correlogram
- **Heatmap**



- Uses
- Design Practices

# COMPOSITION PLOTS

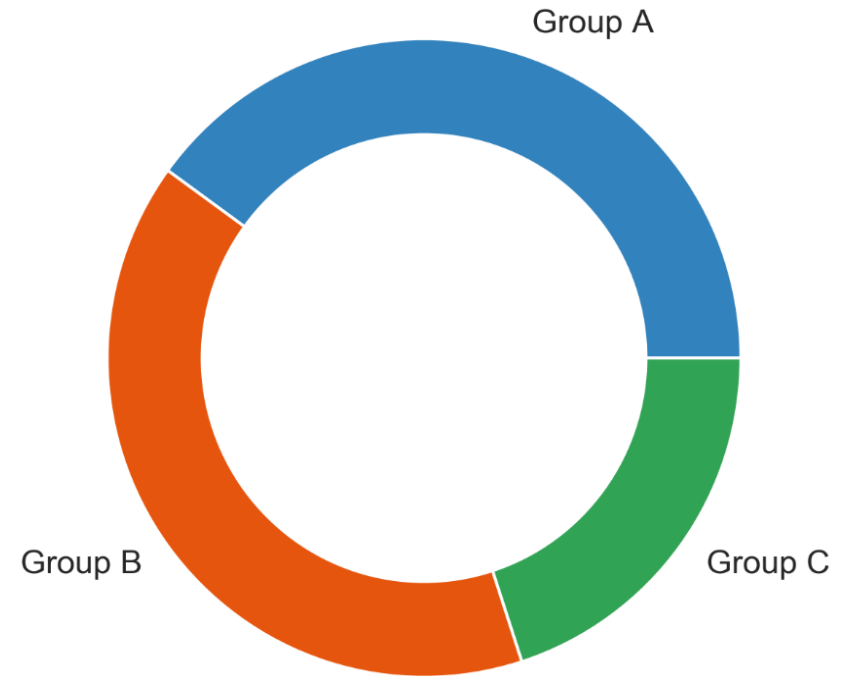
- **Pie Chart**
- Variants: Donut Chart
- Stacked Bar Chart
- Stacked Area Chart
- Venn Diagram



- Uses
- Design Practices

# COMPOSITION PLOTS

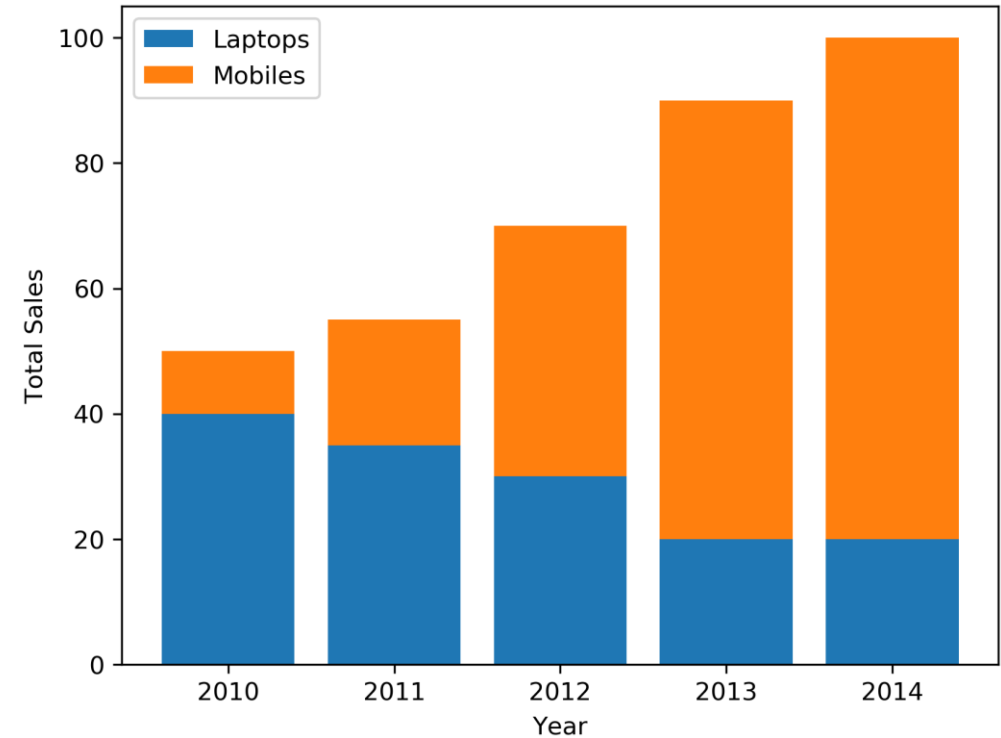
- Pie Chart
- **Variants: Donut Chart**
- Stacked Bar Chart
- Stacked Area Chart
- Venn Diagram



- Uses
- Design Practices

# COMPOSITION PLOTS

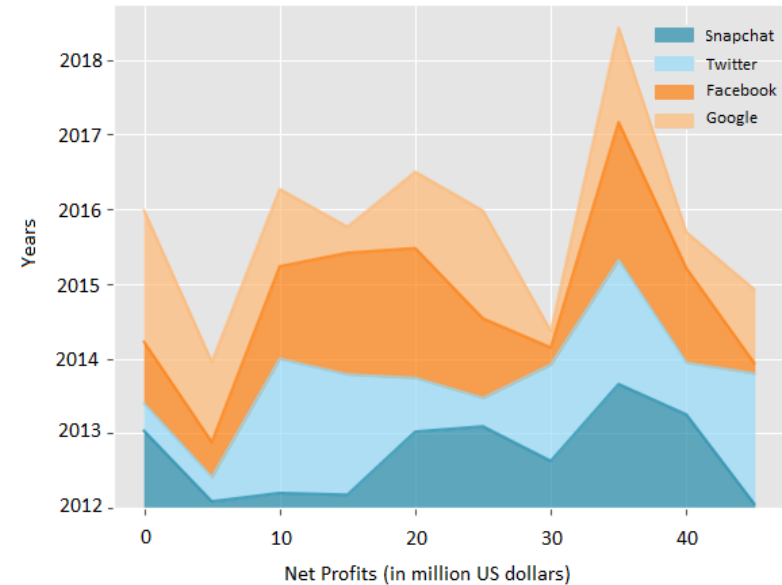
- Pie Chart
- Variants: Donut Chart
- **Stacked Bar Chart**
- Stacked Area Chart
- Venn Diagram



- Uses
- Design Practices

# COMPOSITION PLOTS

- Pie Chart
- Variants: Donut Chart
- Stacked Bar Chart
- **Stacked Area Chart**
- Venn Diagram

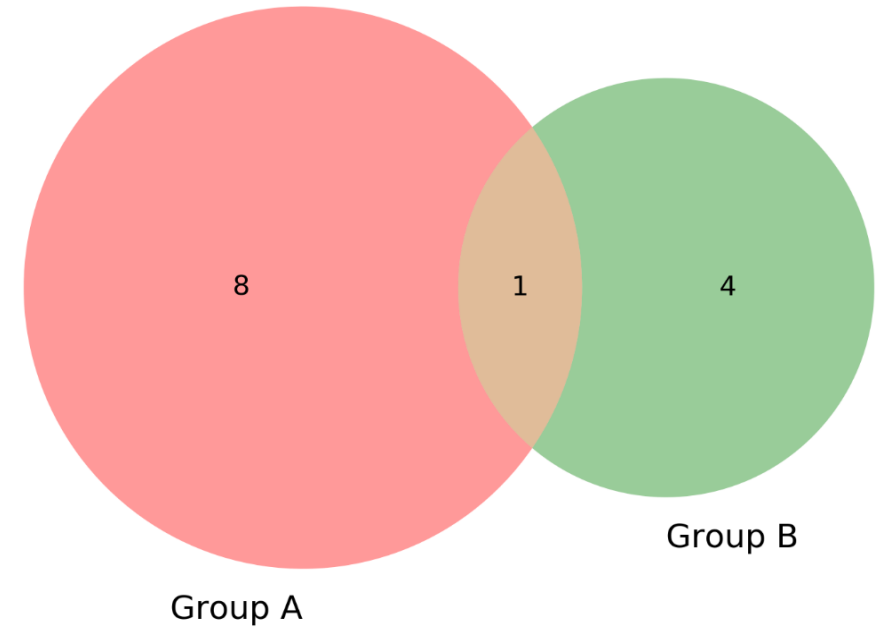


- Uses
- Design Practices



# COMPOSITION PLOTS

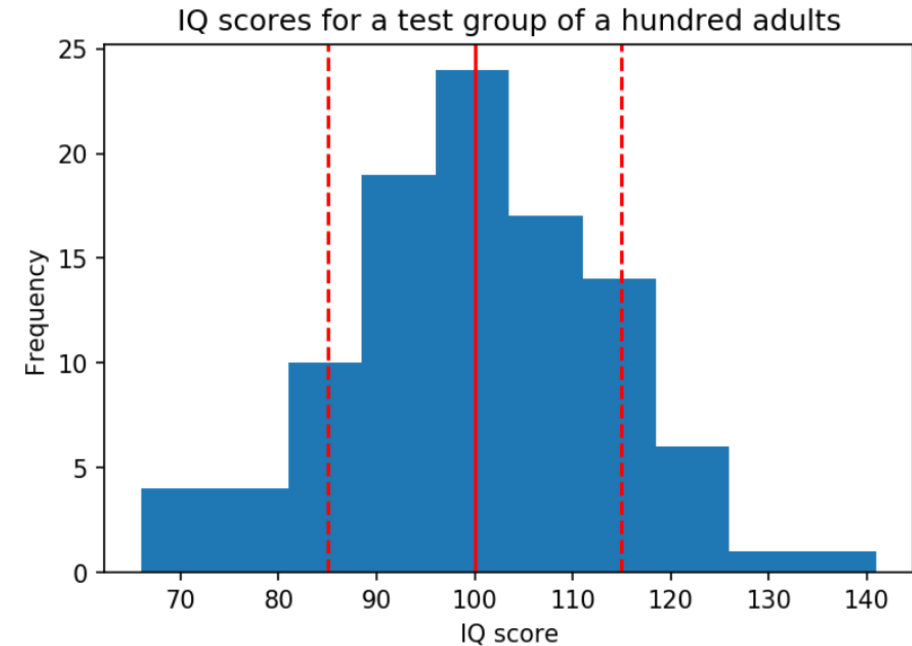
- Pie Chart
- Variants: Donut Chart
- Stacked Bar Chart
- Stacked Area Chart
- **Venn Diagram**



- Uses
- Design Practices

# DISTRIBUTION PLOTS

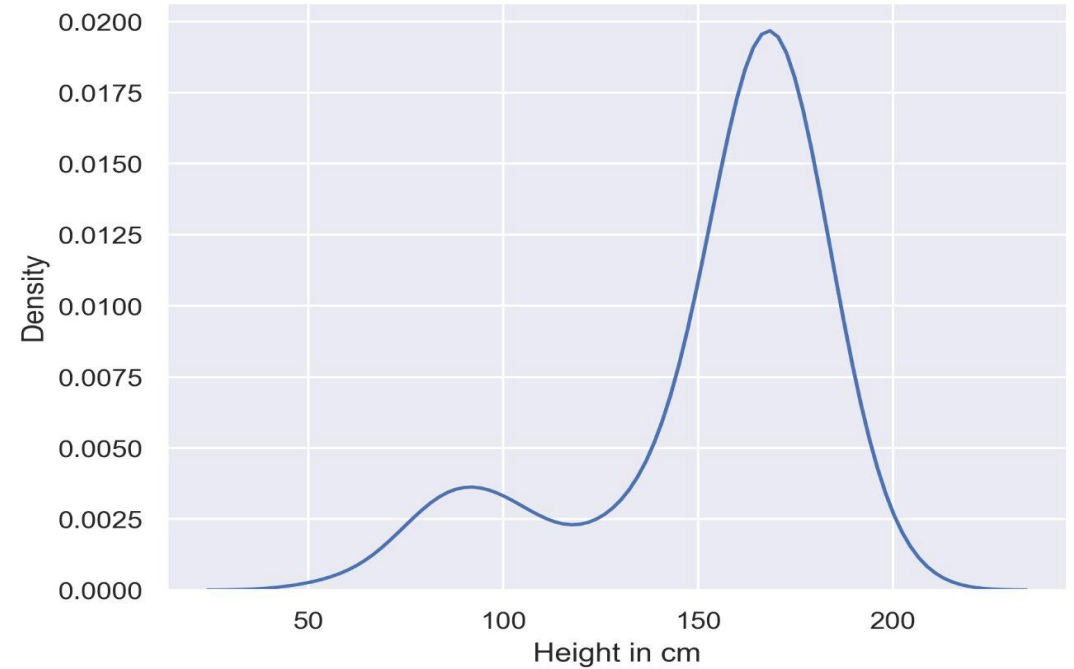
- **Histogram**
- Density Plot
- Box Plot
- Violin Plot



- Uses
- Design Practices

# DISTRIBUTION PLOTS

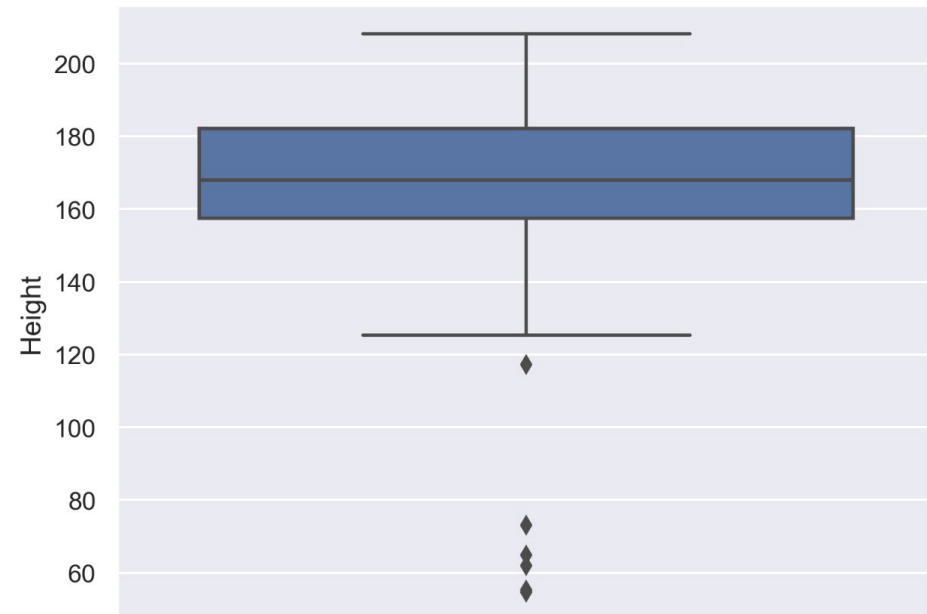
- Histogram
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- Box Plot
- Violin Plot



- Uses
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# DISTRIBUTION PLOTS

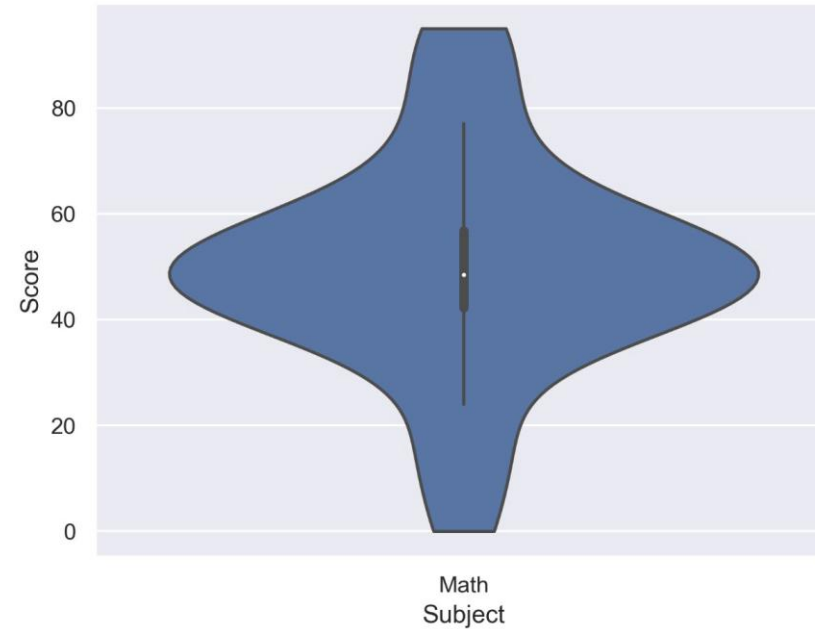
- Histogram
- Density Plot
- **Box Plot**
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- Uses
- Design Practices

# DISTRIBUTION PLOTS

- Histogram
- Density Plot
- Box Plot
- **Violin Plot**



- Uses
- Design Practices

# GEOPLOTS

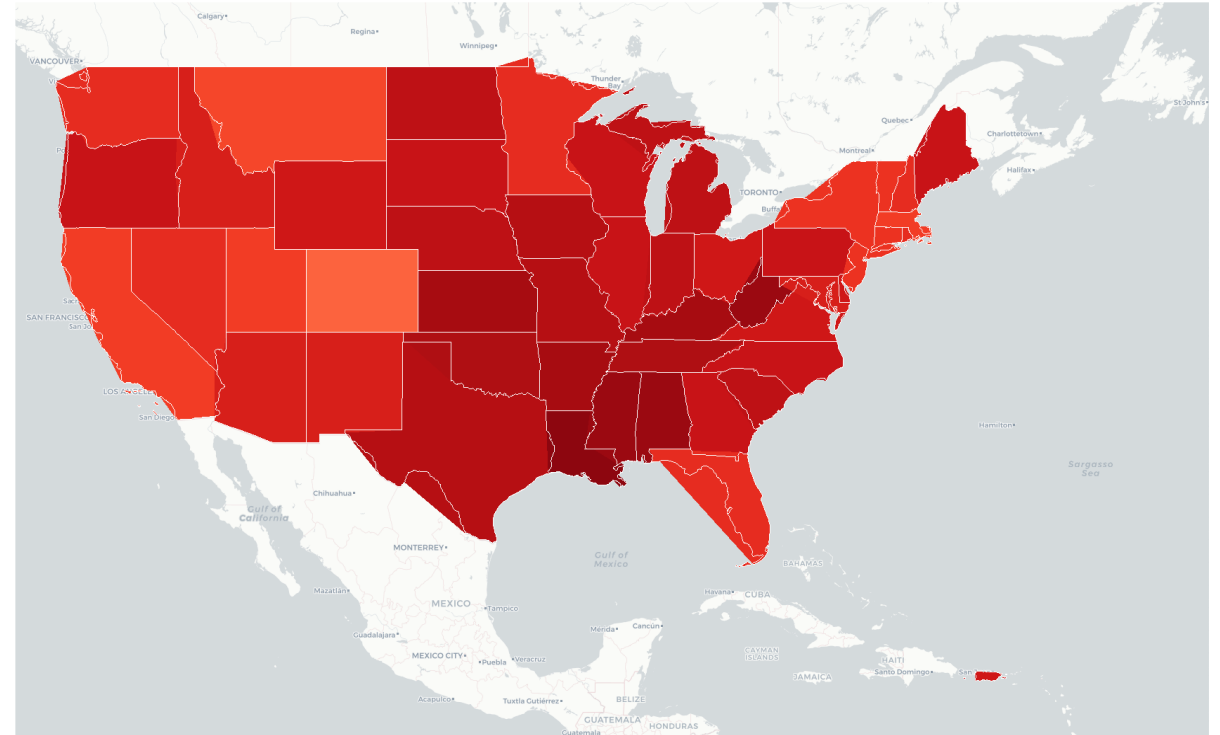
- **Dot Map**
- Choropleth Map
- Connection Map



- **Uses**
- **Design Practices**

# GEOPLOTS

- Dot Map
- **Choropleth Map**
- Connection Map



- Uses
- Design Practices

# GEOPLOTS

- Dot Map
- Choropleth Map
- **Connection Map**



- Uses
- Design Practices



**THANK YOU**

