

# Quarto Presentations with Reveal.js

# Hello, There

Reveal.js enables you to create beautiful interactive slide decks using HTML. This presentation will show you examples of what it can do, including:

- Presenting code and LaTeX equations
- Including computations in slide output
- Image, video, and iframe backgrounds
- Fancy transitions and animations
- Printing to PDF

# Pretty Code

- Over 20 syntax highlighting themes available
- Default theme optimized for accessibility

```
1 # Define a server for the Shiny app
2 function(input, output) {
3
4   # Fill in the spot we created for a plot
5   output$phonePlot <- renderPlot({
6     # Render a barplot
7   })
8 }
```

# Code Animations

- Over 20 syntax highlighting themes available
- Default theme optimized for accessibility

```
1 # Define a server for the Shiny app
2 function(input, output) {
3
4   # Fill in the spot we created for a plot
5   output$phonePlot <- renderPlot({
6     # Render a barplot
7     barplot(WorldPhones[,input$region]*1000,
8             main=input$region,
9             ylab="Number of Telephones",
10            xlab="Year")
11   })
12 }
```

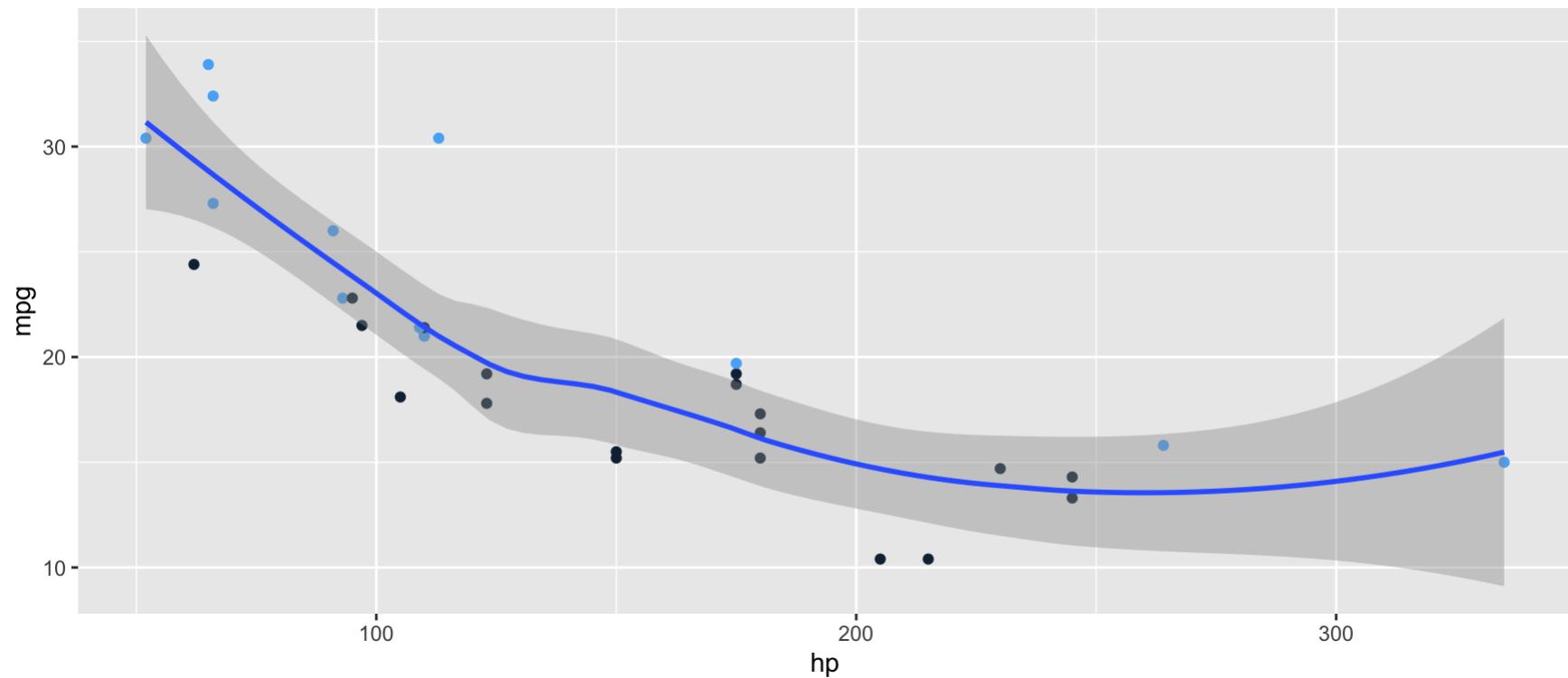
# Line Highlighting

- Highlight specific lines for emphasis
- Incrementally highlight additional lines

```
1 import numpy as np
2 import matplotlib.pyplot as plt
3
4 r = np.arange(0, 2, 0.01)
5 theta = 2 * np.pi * r
6 fig, ax = plt.subplots(subplot_kw={'projection': 'polar'})
7 ax.plot(theta, r)
8 ax.set_rticks([0.5, 1, 1.5, 2])
9 ax.grid(True)
10 plt.show()
```

# Executable Code

```
1 library(ggplot2)
2 ggplot(mtcars, aes(hp, mpg, color = am)) +
3   geom_point() + geom_smooth(formula = y ~ x, method = "loess")
```



# LaTeX Equations

MathJax rendering of equations to HTML

```
1 \begin{gather*}
2 a_1=b_1+c_1\\
3 a_2=b_2+c_2-d_2+e_2
4 \end{gather*}
5
6 \begin{align}
7 a_{11}&=b_{11} & a_{12}&=b_{12}\\
8 a_{12}&=b_{12} \\
9 a_{21}&=b_{21} & a_{22}&=b_{22}+c_{22}\\
10 a_{22}&=b_{22}+c_{22}
11 \end{align}
```

$$a_1 = b_1 + c_1$$

$$a_2 = b_2 + c_2 - d_2 + e_2$$

$$a_{11} = b_{11}$$

$$a_{12} = b_{12}$$

$$a_{21} = b_{21}$$

$$a_{22} = b_{22} + c_{22}$$

# Column Layout

Arrange content into columns of varying widths:

## Motor Trend Car Road Tests

The data was extracted from the 1974 Motor Trend US magazine, and comprises fuel consumption and 10 aspects of automobile design and performance for 32 automobiles.

	mpg	cyl	disp	hp	wt
Mazda RX4	21.0	6	160	110	2.620
Mazda RX4 Wag	21.0	6	160	110	2.875
Datsun 710	22.8	4	108	93	2.320
Hornet 4 Drive	21.4	6	258	110	3.215
Hornet Sportabout	18.7	8	360	175	3.440
Valiant	18.1	6	225	105	3.460

# Incremental Lists

Lists can optionally be displayed incrementally:

- First item
- Second item
- Third item

Insert pauses to make other types of content display incrementally.

# Fragments

Incremental text display and animation with fragments:

Fade in

Slide up while fading in

Slide left while fading in

Fade in then semi out

~~Strike~~

Highlight red

# Slide Backgrounds

Set the `background` attribute on a slide to change the background color (all CSS color formats are supported).

Different background transitions are available via the `background-transition` option.

# Media Backgrounds

You can also use the following as a slide background:

- An image: `background-image`
- A video: `background-video`
- An iframe: `background-iframe`

# Position Elements Anywhere



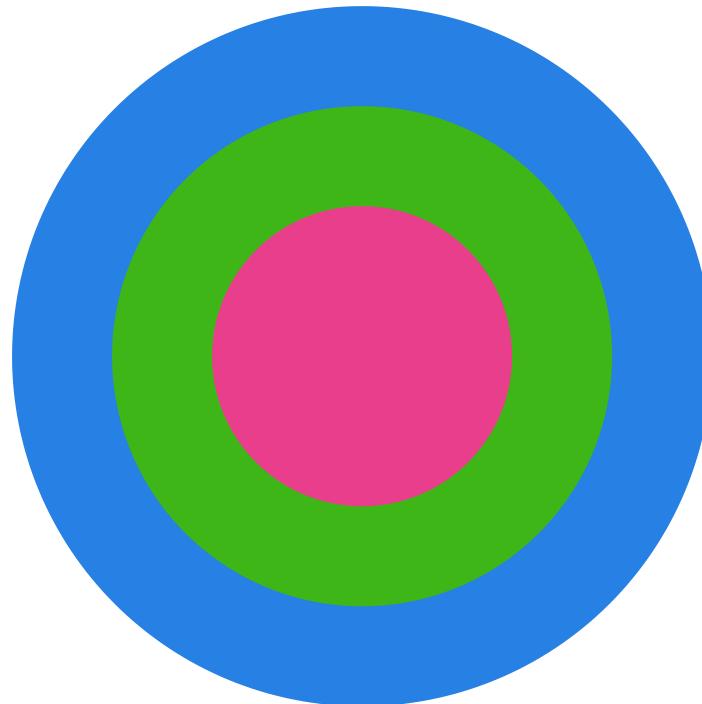
# Auto-Animate

Automatically animate matching elements across slides with Auto-Animate.



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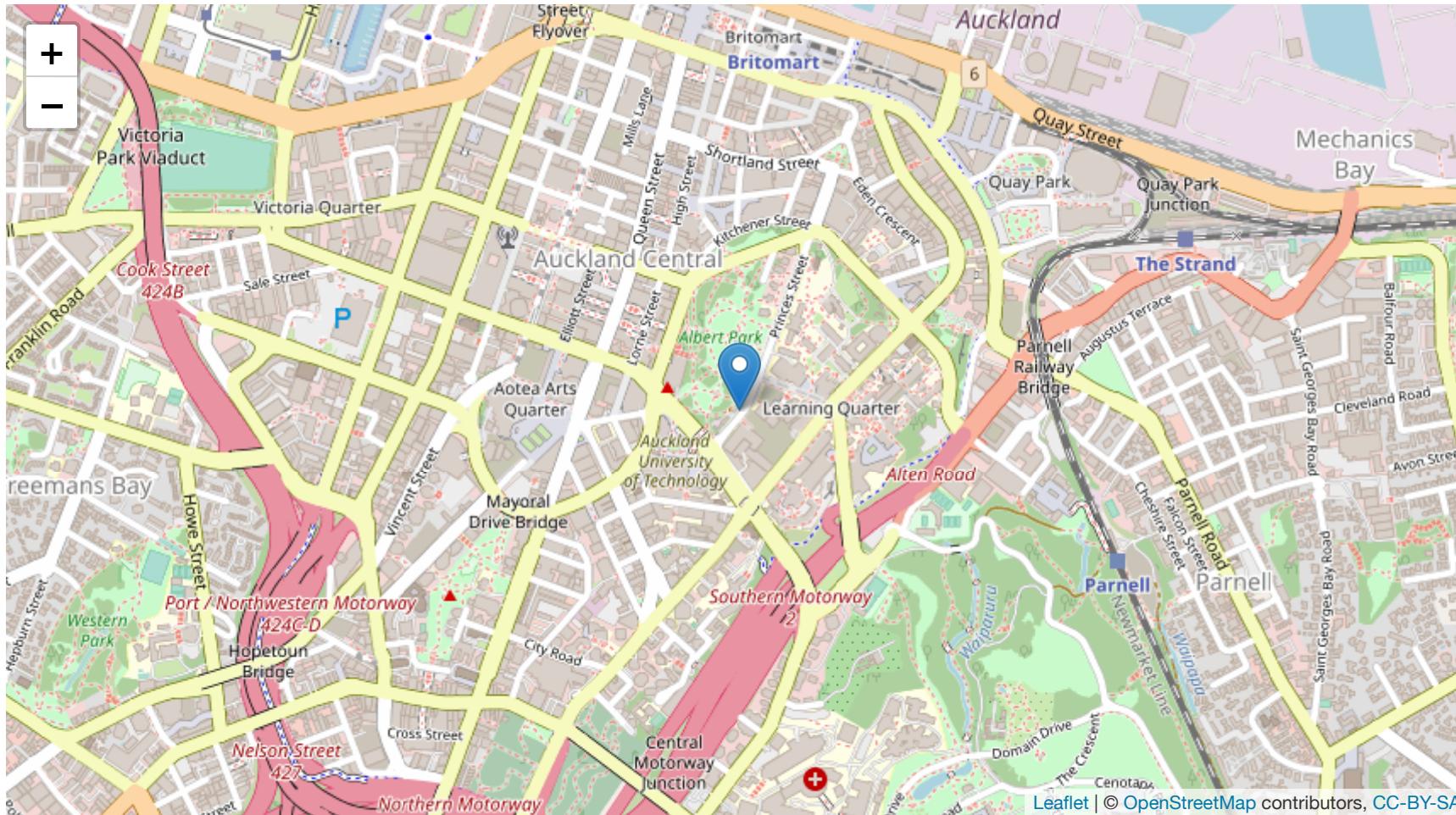
# Slide Transitions

The next couple of slides will transition using the `slide` transition

Transition	Description
<code>none</code>	No transition (default, switch instantly)
<code>fade</code>	Cross fade
<code>slide</code>	Slide horizontally
<code>convex</code>	Slide at a convex angle
<code>concave</code>	Slide at a concave angle
<code>zoom</code>	Scale the incoming slide so it grows in from the center of the screen.

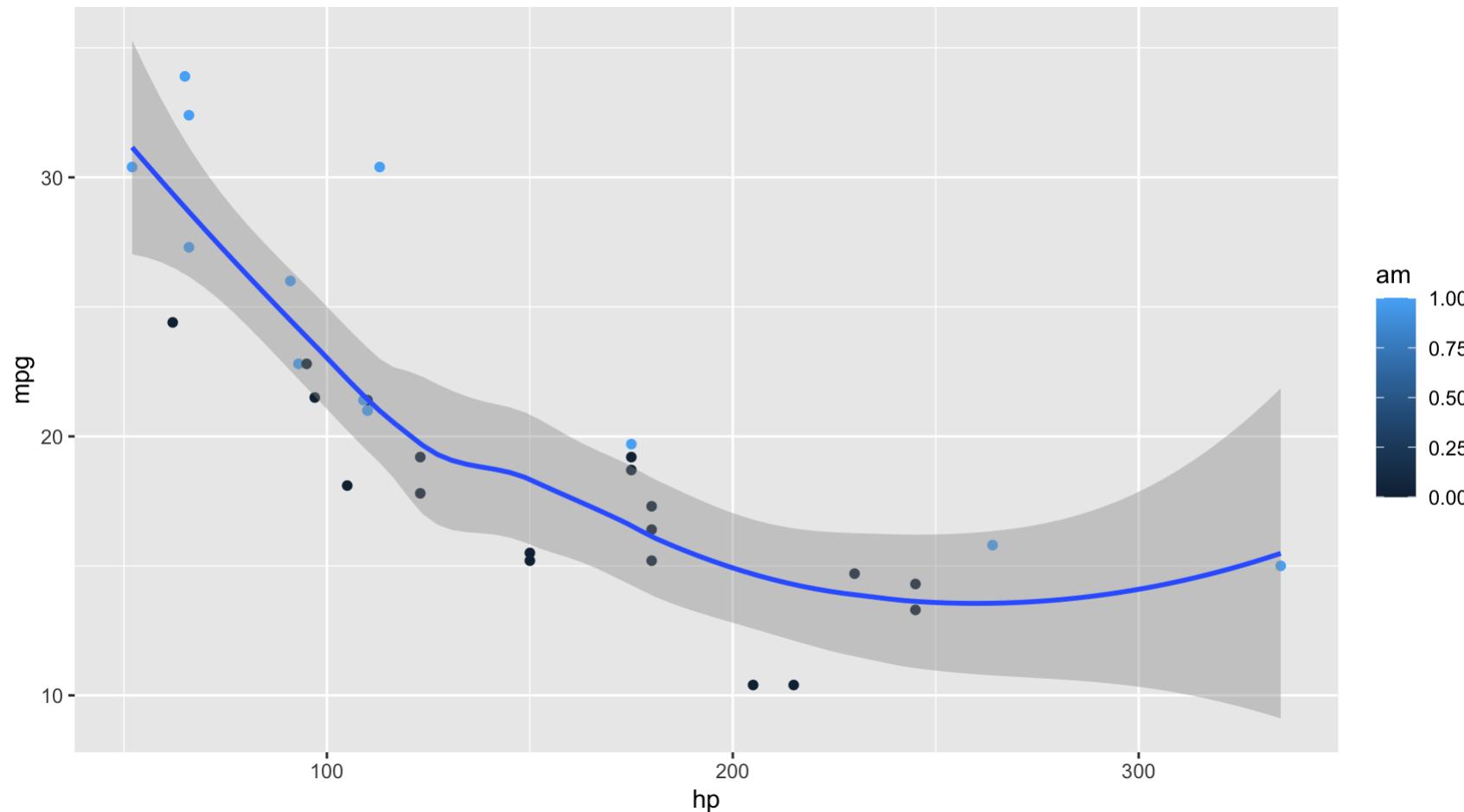
# Interactive Widgets

Interactivity with Jupyter Widgets and htmlwidgets for R



# Tabs

Plot Data



# Themes

## 10 Built-in Themes (or [create your own](#))

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< >

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☰ Learn more: Incremental Lists quarto®

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# Easy Navigation

Quickly jump to other parts of your presentation

- ☰ Toggle the slide menu with the menu button (bottom left of slide) to go to other slides and access presentation tools.

You can also press **m** to toggle the menu open and closed.

# Chalkboard

Free form drawing and slide annotations

-  Use the chalkboard button at the bottom left of the slide to toggle the chalkboard.
-  Use the notes canvas button at the bottom left of the slide to toggle drawing on top of the current slide.

You can also press **b** to toggle the chalkboard or **c** to toggle the notes canvas.

# Point of View

Press **O** to toggle overview mode:

The screenshot displays the Quarto authoring interface with several panels open:

- Cross References**: Shows two small images of historical figures and text about the feature.
- Advanced page layout**: Describes features inspired by Tufte, Distill, and Hugo Prose, including figures and tables spanning the page, margin use, and responsive show/hide of site navigation and TOC. It includes links to [HTML](#) and [PDF](#).
- Figure/layout Panels**: Shows a screenshot of the interface with a figure and a table, and a list of features: arbitrary layout of figures and tables, margin support, and callouts.
- Callouts**: Shows a screenshot of the interface with a callout box highlighting a figure.
- Quarto Websites**: Lists features: arbitrary content depth, multi-level navigation, full text search, freezing computational output, and an example link to <https://quarto.org>.

Hold down the **Alt** key (or **Ctrl** in Linux) and click on any element to zoom towards it—try it now on this slide.

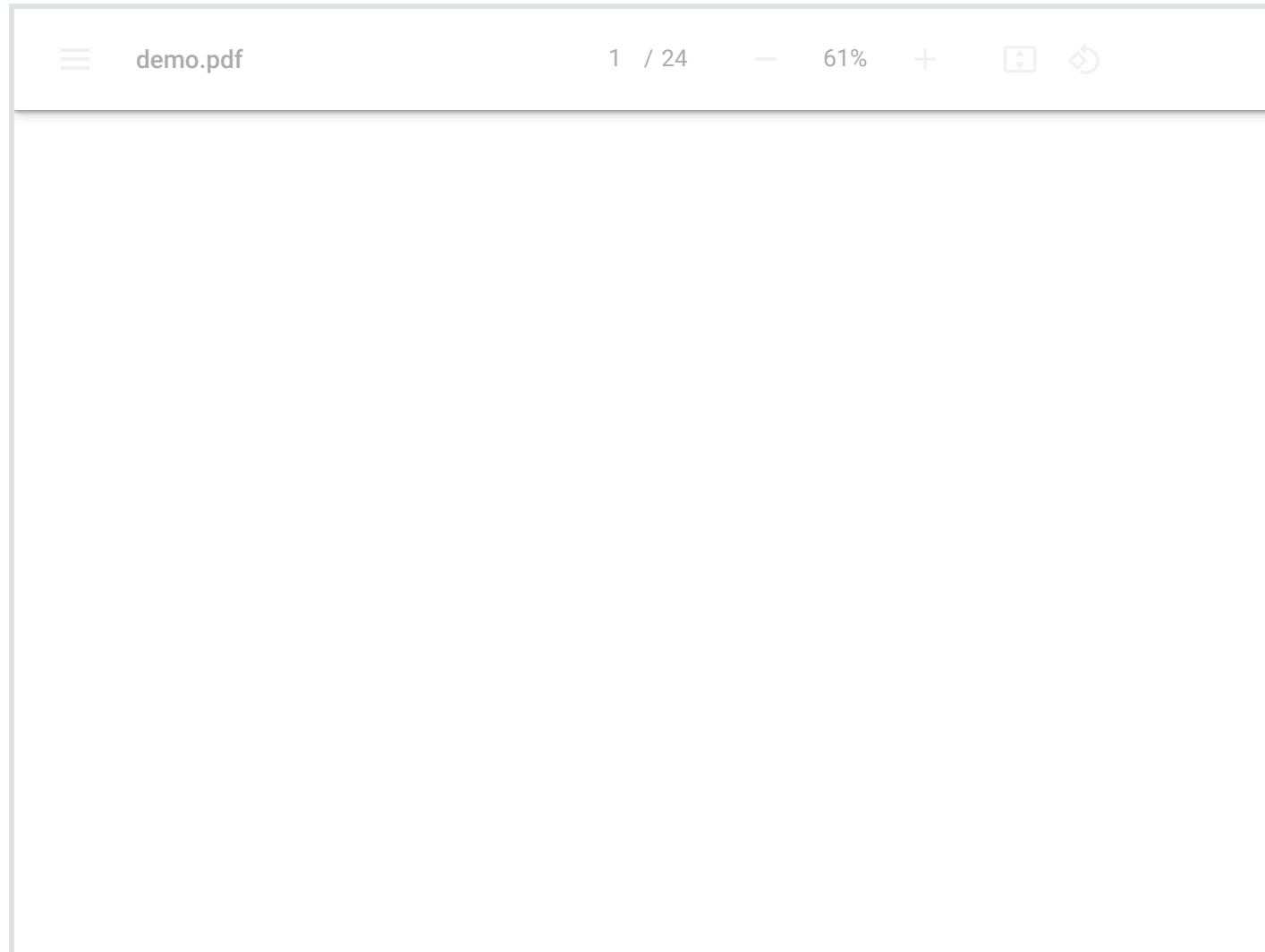
# Speaker View

Press **s** (or use the presentation menu) to open speaker view

The image shows a speaker view interface for a presentation. On the left, a large slide area displays the title "Quarto Presentations with Reveal.js". Below the title is a URL "https://quarto.org" and the Quarto logo. At the top right of the slide area, it says "1 / 23". To the right of the slide area is a navigation bar with three tabs: "Upcoming", "There", and "Layout: Default". The "There" tab is selected. Below the tabs, there is a brief description of Reveal.js: "Reveal.js enables you to create beautiful interactive slide decks using HTML. This presentation will show you examples of what it can do, including:" followed by a bulleted list: "Presenting code and LaTeX equations", "Including computations in slide output", "Image, video, and iframe backgrounds", "Fancy transitions and animations", and "Printing to PDF". There is also a link "Learn more: Quarto Presentations" and the Quarto logo. At the bottom right of the slide area, there is a timer showing "TIME 00:01:01 09:33 AM".

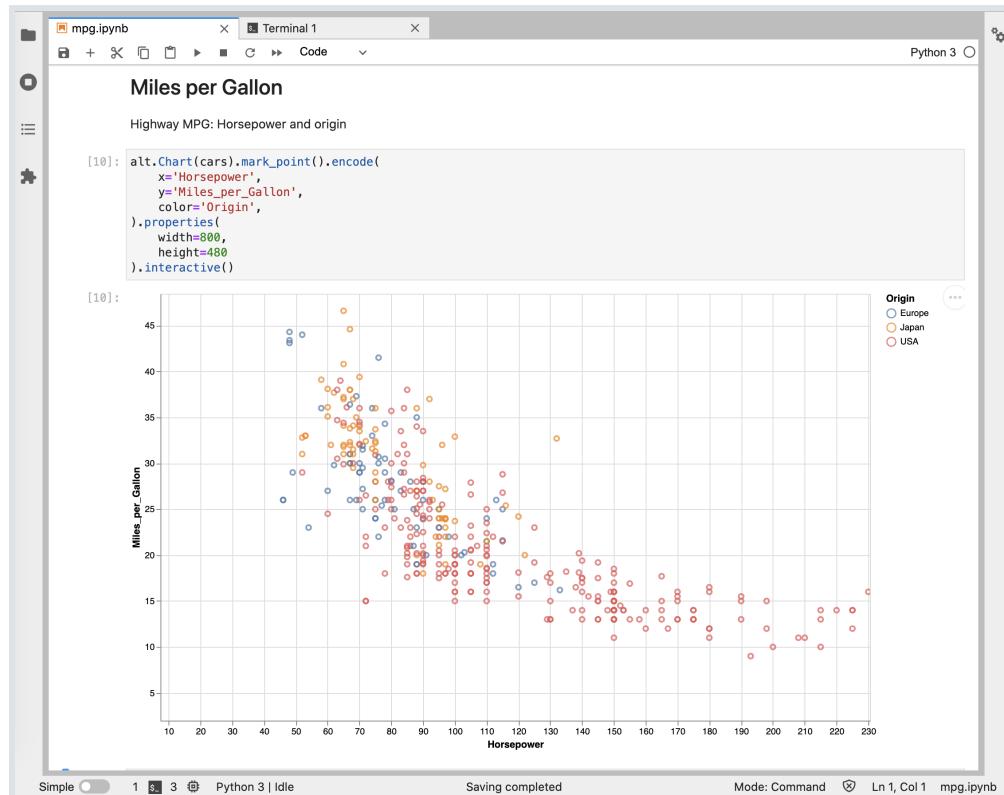
# Print to PDF

Print presentations to PDF using Chrome. Here's a PDF version of this demo presentation:



# Author in a Notebook or Text Editor

Live side-by-side preview for Jupyter, VS Code, etc.

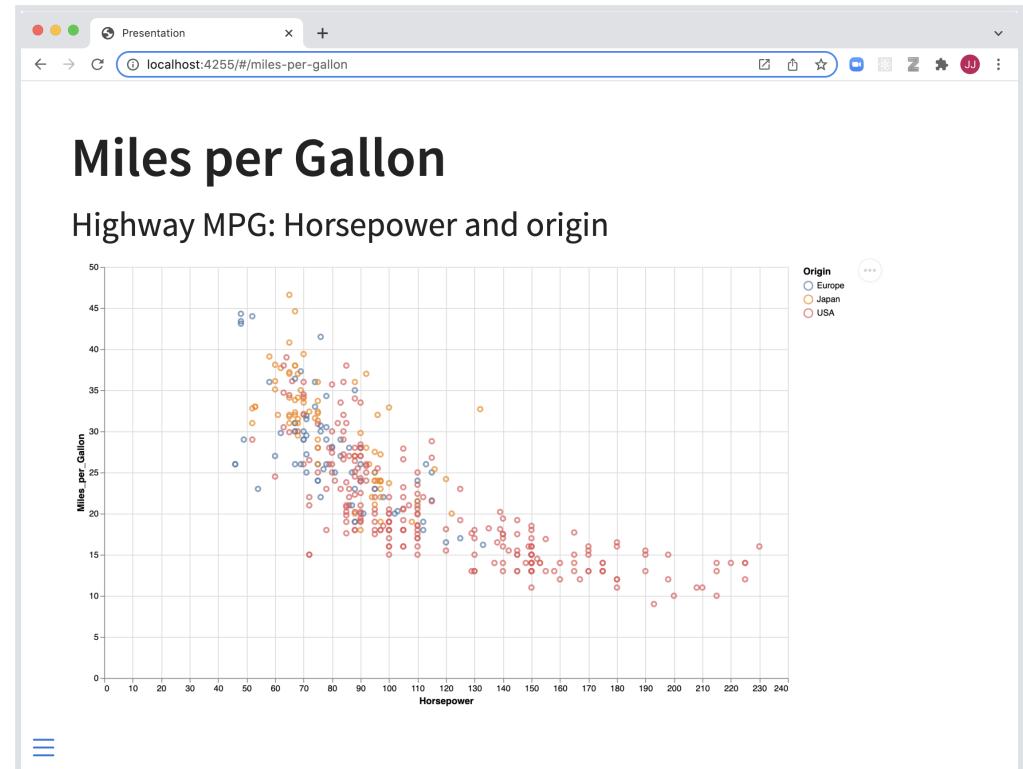


Miles per Gallon

Highway MPG: Horsepower and origin

```
[10]: alt.Chart(cars).mark_point().encode(
    x="Horsepower",
    y='Miles_per_Gallon',
    color="Origin",
).properties(
    width=800,
    height=480
).interactive()
```

The screenshot shows a Jupyter notebook cell with the code for generating a scatter plot. The plot displays the relationship between Horsepower (x-axis, ranging from 10 to 230) and Miles per Gallon (y-axis, ranging from 5 to 48). Data points are colored by Origin, with three categories: Europe (blue), Japan (orange), and USA (red). The plot is interactive, as indicated by the 'interactive()' function call in the code.



# Author in RStudio

Integrated Quarto presentation preview pane

The screenshot shows the RStudio interface with an integrated Quarto presentation preview pane. The top navigation bar includes tabs for Environment, History, Connections, Tutorial, and Presentation, with the Presentation tab selected. The main area displays a presentation slide titled "Miles Per Gallon" with the subtitle "Highway MPG: Displacement and vehicle class". The slide contains a ggplot2 scatter plot showing the relationship between highway miles per gallon (hwy) on the y-axis and engine displacement (displ) on the x-axis. The plot uses color to represent vehicle classes: 2seater (red), compact (orange), midsize (green), minivan (teal), pickup (blue), subcompact (purple), and SUV (pink). The plot shows a general downward trend where higher displacement tends to correspond with lower fuel efficiency. Below the plot is the R code used to generate it:

```
{r}
library(ggplot2)
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy, color = class))
```

The bottom section of the RStudio window shows the Quarto preview pane with the title "Miles Per Gallon" and the subtitle "Highway MPG: Displacement and vehicle class". It also displays the same scatter plot and R code. The bottom right corner of the RStudio window shows the R documentation for the "mtcars" dataset.

# And More...

- **Touch** optimized (presentations look great on mobile, swipe to navigate slides)
- **Footer & Logo** (optionally specify custom footer per-slide)
- **Auto-Slide** (step through slides automatically, without any user input)
- **Multiplex** (allows your audience to follow the slides of the presentation you are controlling on their own phone, tablet or laptop).