

# Day 7 Cheatsheet

## Data Visualization

### Major concepts:

- ggplot2 A tidyverse package for producing graphics
- Tidy data: Each variable forms a column and each observation forms a row.

### Functions

Library/Package	Piece of code	Example of usage	What it does
ggplot2	<code>ggplot()</code>	GG Plot	Begins a plot that is finished by adding layers.
ggplot2	<code>aes()</code>	Aesthetic Mappings	Designates how variables in the data object are mapped to the visual properties of the ggplot.
ggplot2	<code>geom_boxplot()</code>	Boxplot	Creates a boxplot when added as a layer to a <code>ggplot()</code> object.
ggplot2	<code>geom_density()</code>	Density Plot	Creates a smoothed plot when added as a layer to a <code>ggplot()</code> object based on the computed density estimate.
ggplot2	<code>geom_point()</code>	Scatterplot	Creates a scatterplot when added as a layer to a <code>ggplot()</code> object.
ggplot2	<code>geom_line()</code>	Line plot	Creates a line plot when added as a layer to a <code>ggplot()</code> object by connecting the points in order of the x axis variable.
ggplot2	<code>geom_hline()</code>	Horizontal line	Annotates a plot with horizontal lines when added as a layer to a <code>ggplot()</code> object with one of the <code>geom</code> functions used to draw the plot, for example, <code>geom_point()</code> .
ggplot2	<code>theme_classic()</code>	Classic Theme	Displays <code>ggplot</code> without gridlines. The <code>ggtheme</code> documentation has descriptions on additional themes that can be used.

Library/Package	Piece of code	Example of usage	What it does
ggplot2	<code>xlab(); ylab(); ggtitle()</code>	X Axis Labels; Y Axis Labels; GG Title	Modifies the labels on the x axis and on the y axis, and sets the title of a <b>ggplot</b> , respectively.
ggplot2	<code>facet_wrap()</code>	Facet Wrap	Plots individual graphs using specified variables to subset the data.
ggplot2	<code>ggsave()</code>	GG Save	Saves the last plot in working directory.
ggplot2	<code>last_plot()</code>	Last plot	Returns the last plot produced.

\* This format was adapted from the cheatsheet format from AlexsLemonade.