Anatomy of a ggplot

Load the Library!!

library("ggplot2")

The Very Basics

Bottom axis variable

Must Match!

Left axis variable

Additional Arguments
can be added

ggplot(dataFrame, aes(x =column, y=column) + geom_plotType()

Always starts with ggplot

Code
Stands for "aesthetics"

Options include:
- boxplot
- line
- smooth
- point
- path
- And More!
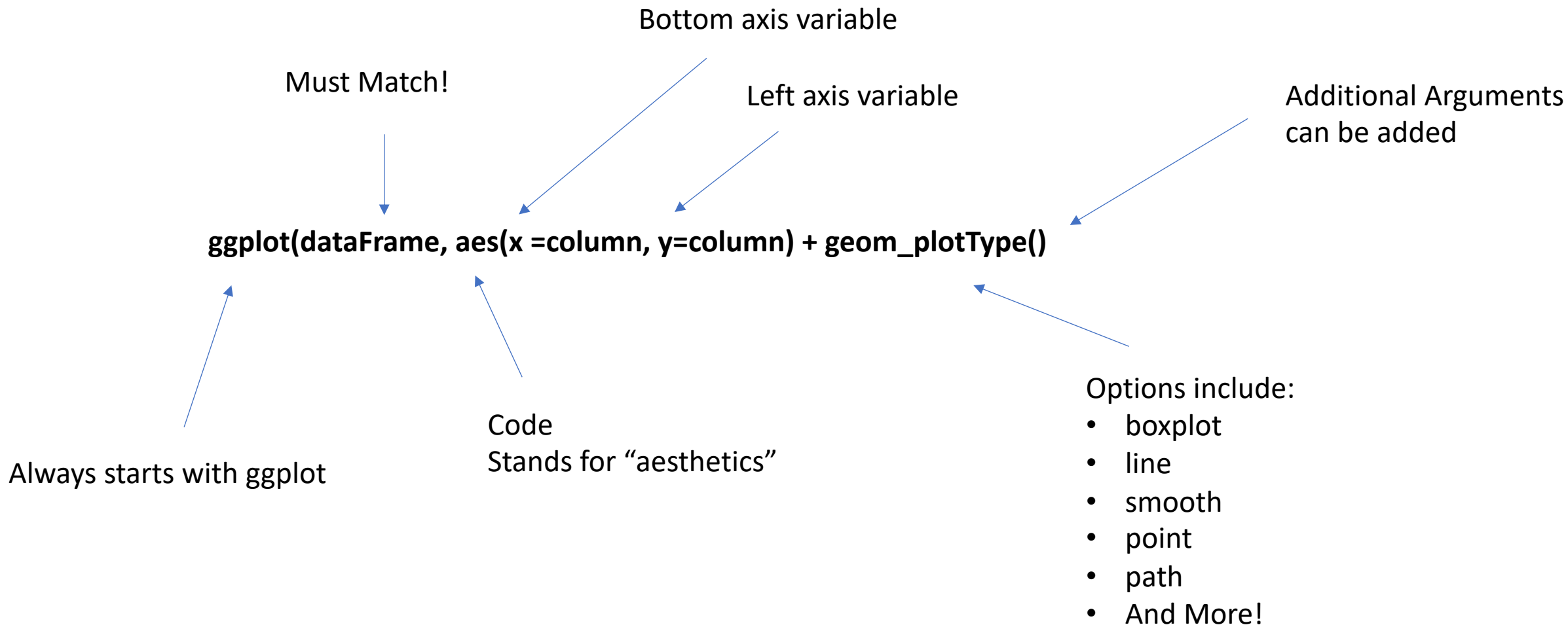
Changing a Variable Type for a Plot

Additional close parenthesis

ggplot(dataFrame, aes(x =type(column), y=column)) + geom_plotType()

Options include:
- factor
- date
- And More!

Column name in parentheses

Changing the Scaling

Select x or y for axis

ggplot(dataFrame, aes(x =type(column), y=column)) + geom_plotType() + scale_y_log10()

Code

Options to make bigger:
- log
- log10

To make smaller:
- sqrt

And many more!

Labels

ggplot(dataFrame, aes(x =column, y=column) +
                geom_plotType() +
                xlab("xLabel") +
                ylab("yLabel") +
                ggititle("GraphTitle")

Argument
Names

Text must be in
parentheses and quotes

Plotting with Color

```
ggplot(dataFrame, aes(x =column, y=column) +
        geom_plotType(color=column) +
        xlab("xLabel") +
        ylab("yLabel") +
        ggititle("GraphTitle")
```

Additional factor variable
Colors randomly assigned

Argument
Name

Plotting with Size

```
ggplot(dataFrame, aes(x =column, y=column) +
        geom_plotType(aes(size=column)) +
        xlab("xLabel") +
        ylab("yLabel") +
        ggititle("GraphTitle")
```

Additional factor variable
Sizes assigned

Argument Name
Use within aes()

Plotting with Transparency

```
ggplot(dataFrame, aes(x =column, y=column) +
        geom_plotType(aes(alpha=column)) +
        xlab("xLabel") +
        ylab("yLabel") +
        ggititle("GraphTitle")
```
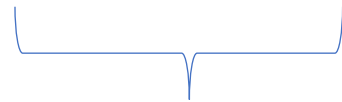
Additional factor variable
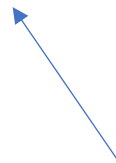Transparencies assigned

Argument Name
Use within aes()

Plotting with Multiple Graphs

• From the "gridExtra" package

grid.arrange(plot1, plot2, ncol=1) Number indicates vertical or horizontal

Named ggplots
already created

Argument Name