

As the plot[ly] thickens...

# WHY ARE GRAPHS USEFUL?

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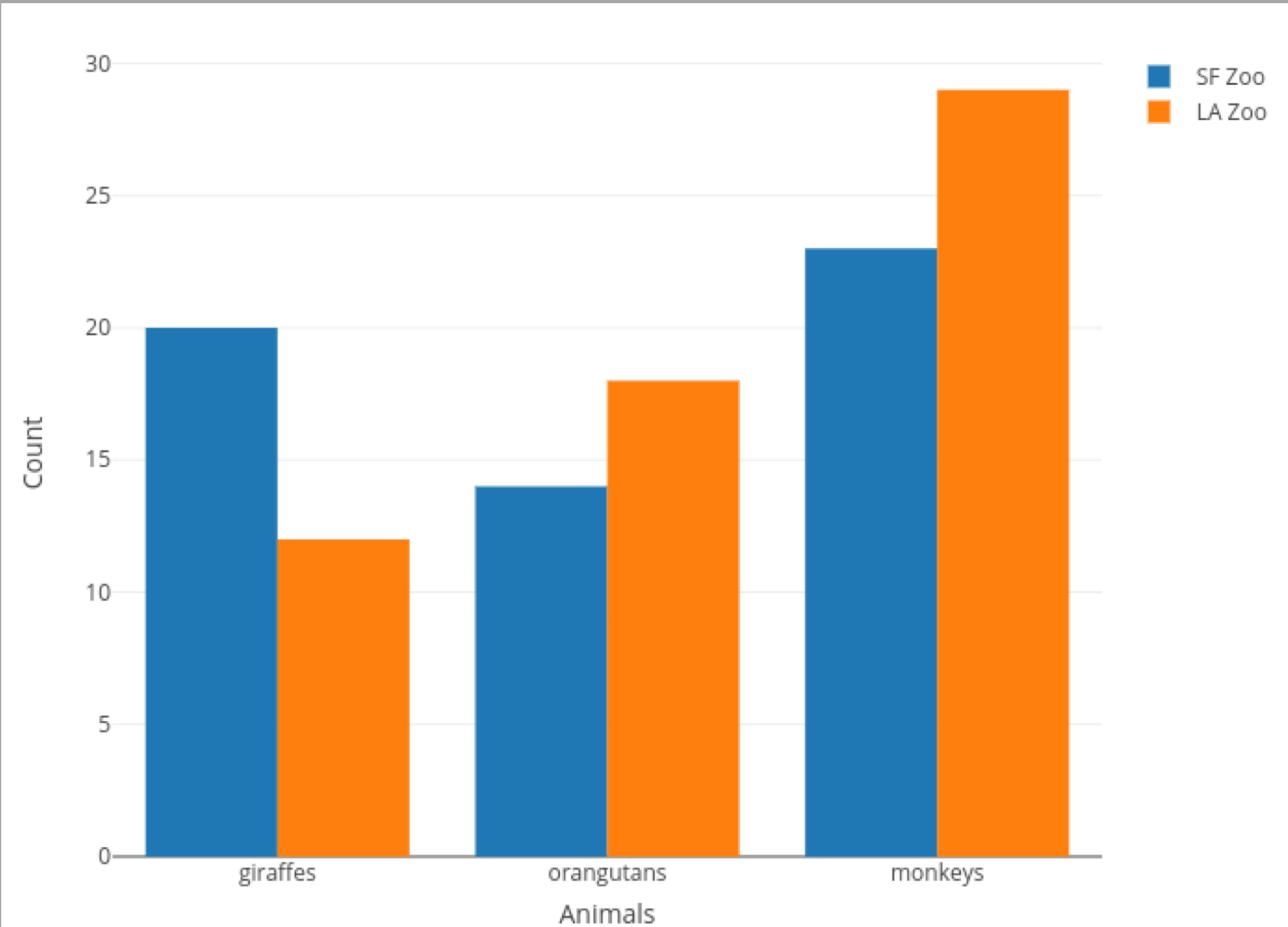
- Tell a story
- Explore data
- Allow audiences to better understand your results
- Provide another way to communicate information

# HOW?

- Choose an appropriate chart type to display information
  - Bar Chat
    - Comparing types across a specific category
  - Line Graph
    - Plot data that change with regard to a continually increasing variable (often time)
  - Scatter Plot
    - Displaying connections between two or more numerical values
  - Other?
- Plot data : use color, text, and presentation choices to enhance your ability to communicate

# HOW?

- Choose a chart type
  - Bar
  - Comparison
  - Line Graph
  - Plot chart
  - Scatter plot
  - Display
  - Other?
- Plot data

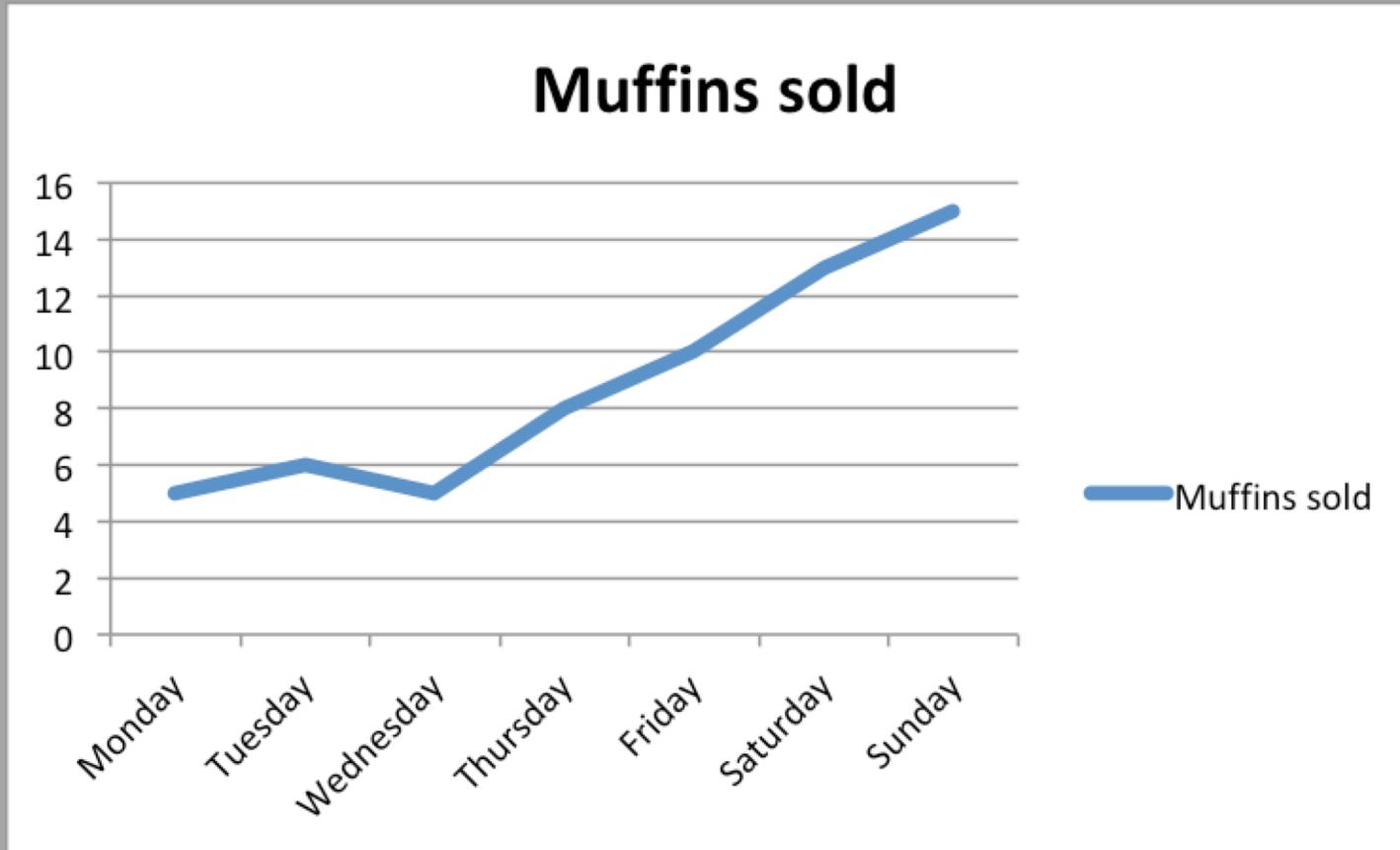


# HOW?

- Choose an appropriate chart type to display information
  - Bar Chat
    - Comparing types across a specific category
  - Line Graph
    - Plot data that change with regard to a continually increasing variable (often time)
  - Scatter Plot
    - Displaying connections between two or more numerical values
  - Other?
- Plot data : use color, text, and presentation choices to enhance your ability to communicate

# HOW?

- Choose a chart type
  - Bar Charts
  - Column Charts
  - Line Graphs
  - Plot Charts
- Scatter Plots
- Displays
- Other?
- Plot data

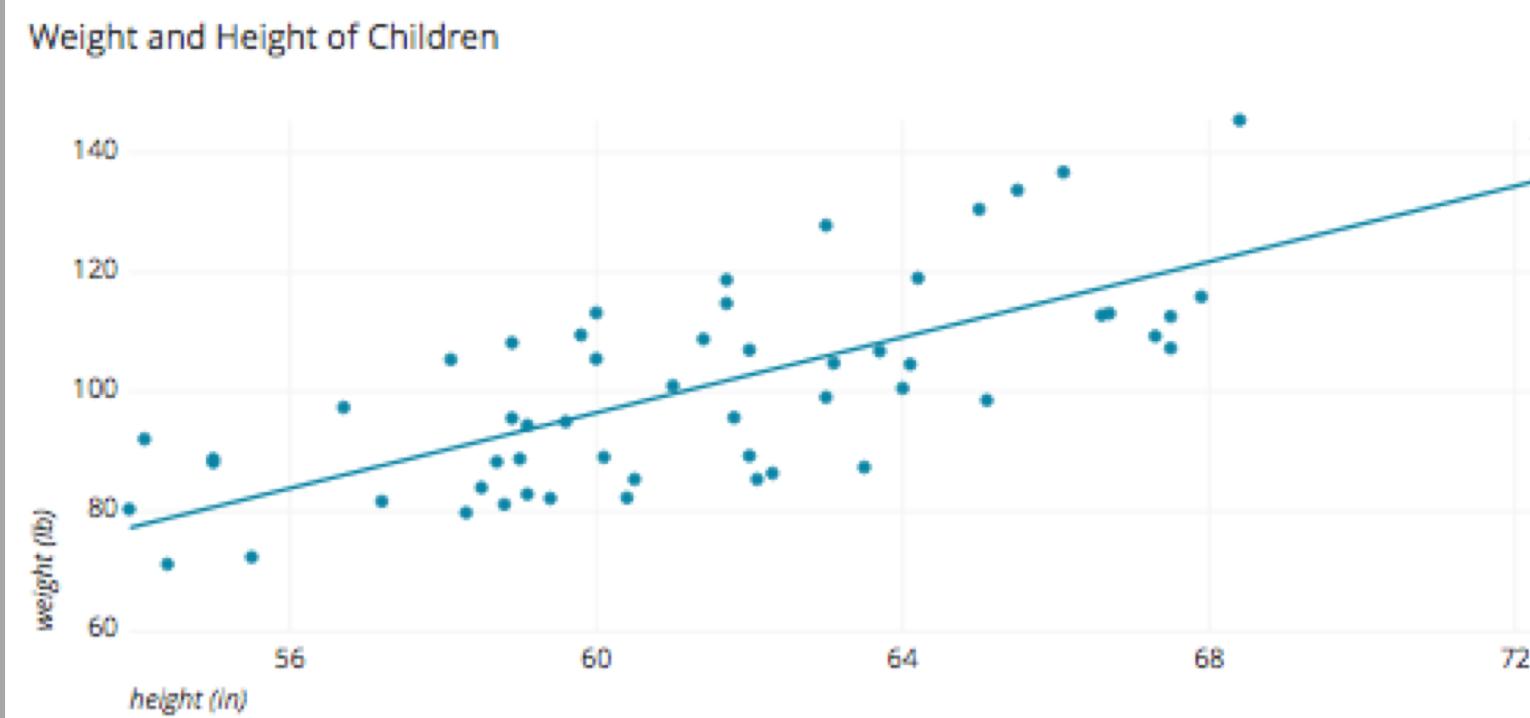


# HOW?

- Choose an appropriate chart type to display information
  - Bar Chat
    - Comparing types across a specific category
  - Line Graph
    - Plot data that change with regard to a continually increasing variable (often time)
  - Scatter Plot
    - Displaying connections between two or more numerical values
  - Other?
- Plot data : use color, text, and presentation choices to enhance your ability to communicate

# HOW?

- Choose a chart type
  - Bar Charts
  - Comparative Charts
  - Line Graphs
  - Plot Charts
  - Scatter Plots
  - Distributions
  - Others
- Plot data



# HOW?

- Choose an appropriate chart type to display information
  - Bar Chat
    - Comparing types across a specific category
  - Line Graph
    - Plot data that change with regard to a continually increasing variable (often time)
  - Scatter Plot
    - Displaying connections between two or more numerical values
  - Other?
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## PLOTLY:WHAT WE'LL BE USING FOR THIS COURSE

- Powerful library supported by many languages (javascript, r, python)
- Check out the documentation: <https://plot.ly/python/>
- Integrate with pandas! : <https://plot.ly/pandas/>

## PLOTLY: HOW TO INSTALL

`pip3 install plotly`

`pip3 install plotly --upgrade`

## PLOTLY: HOW TO MAKE GRAPHS

```
import plotly.graph_objs as go
import plotly.offline as plot
...
# a Figure object must take a Data object
# (and optionally a Layout object)
```

## PLOTLY: HOW TO MAKE GRAPHS

NOTE: when looking at examples online:

`iplot()` is for the interactive shell

`plot()` is for running your normal .py programs

(so, just use the one that makes sense for you)

# REAL-TIME CODING



LAB TIME

