Plotting and Presenting Your Data

Paweł Kordek
SOFTWARE ENGINEER

@pawel_kordek https://kordek.github.io

Summary

Choosing the tools

Generating plots

Demo

The Library

Bokeh Plots

Bokeh Plots

Simple API

Bokeh Plots

Simple API

Targets browsers

Bokeh Plots

Simple API

Targets browsers

Can work with Pandas DataFrames

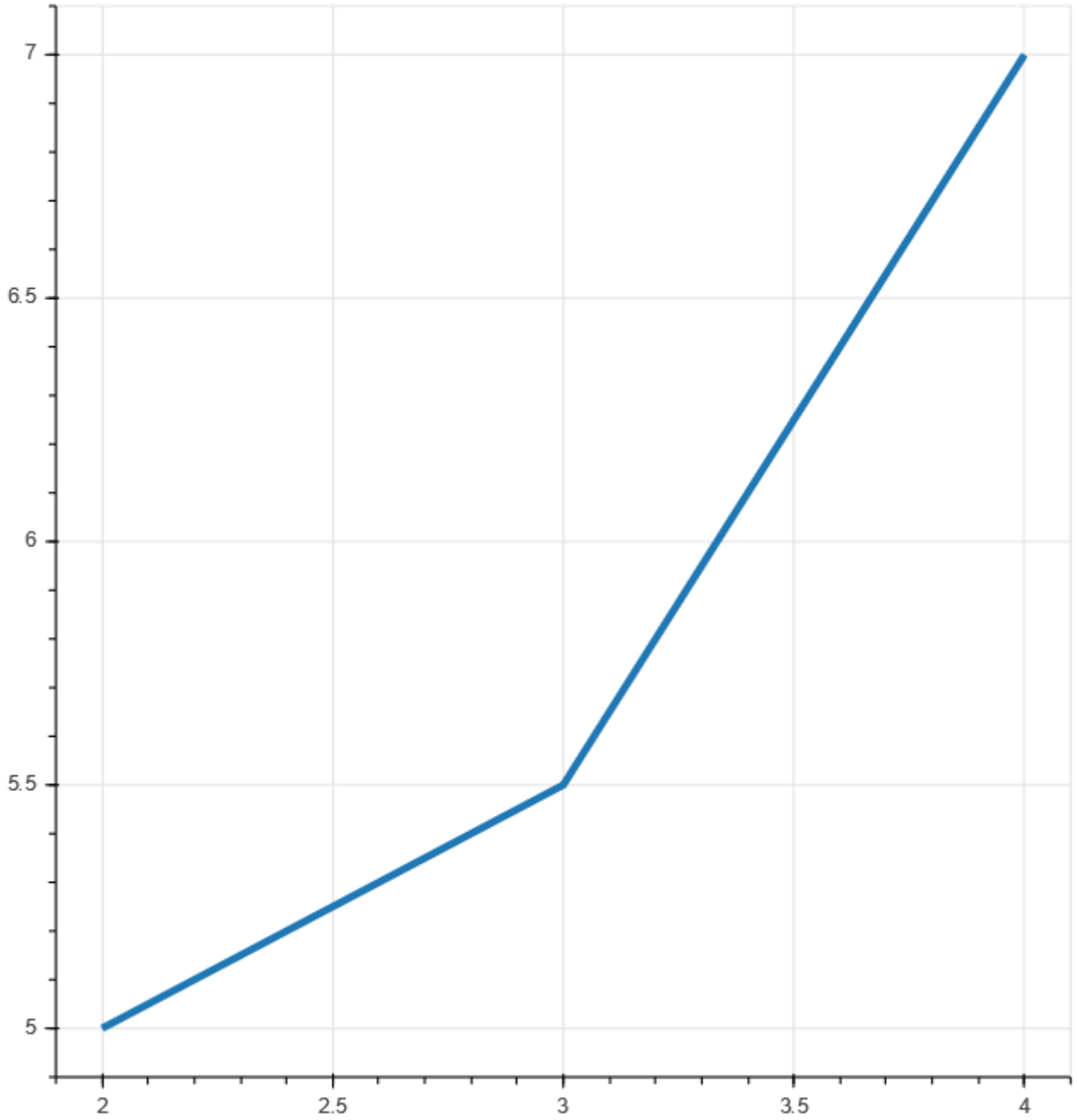
Bokeh Is Fun!

Bokeh Basics

```
p = figure()

p.line(x=[2,3,4], y=[5,5.5,7], line_width=4)
```

Basic Plot and Glyph

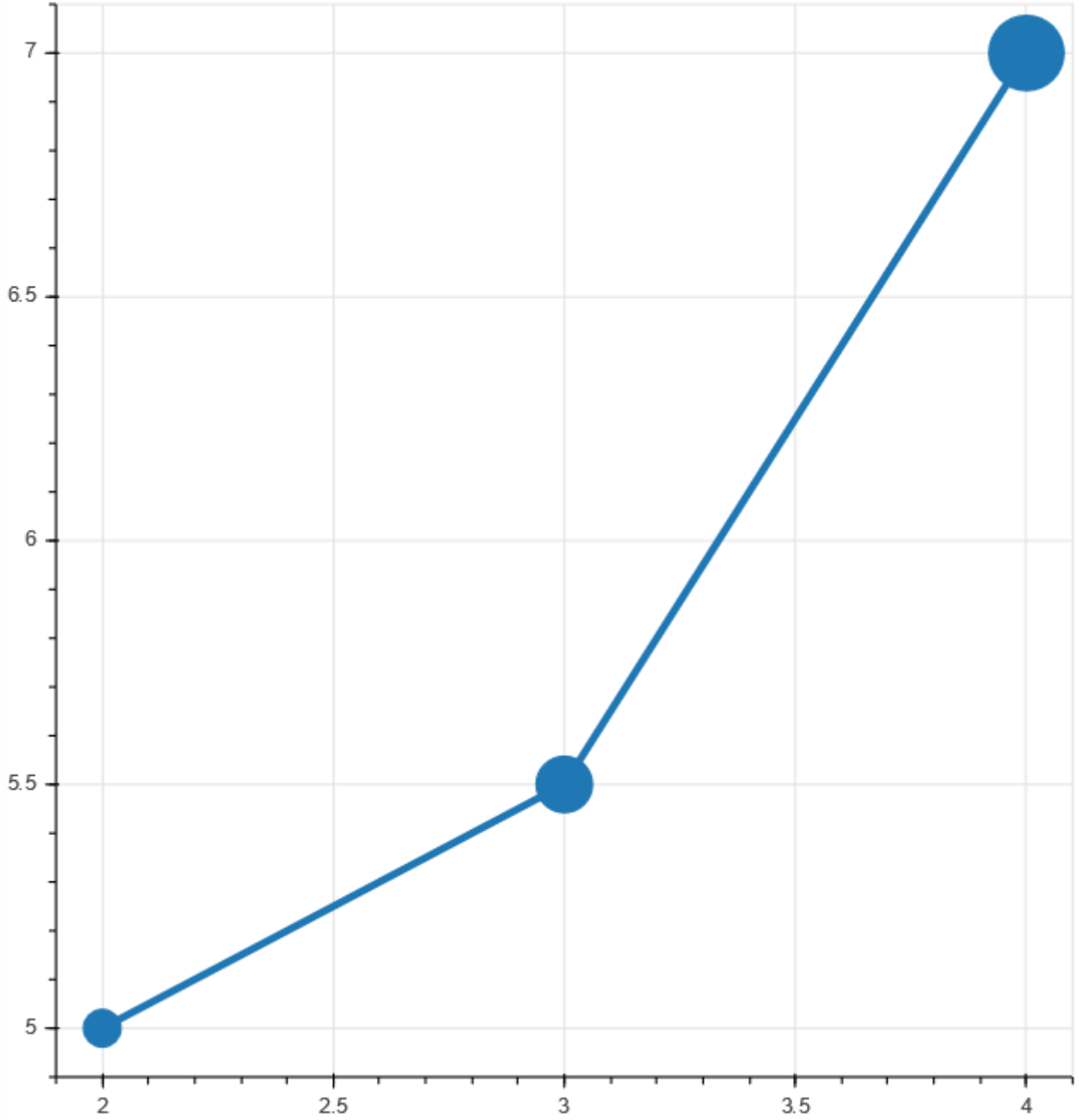
Glyphs are placed by calling their respective methods


7
6.5
6
5.5
5
2
2.5
3
3.5
4

```
p = figure()
p.line(x=[2,3,4], y=[5,5.5,7], line_width=4)
p.circle(x=[2,3,4], y=[5,5.5,7], size=[20,30,40])
```

Multiple Glyphs

Just call more methods


7
6.5
6
5.5
5
2
2.5
3
3.5
4

id	grade	years	salary
1	3	5	75000
2	2	1	50000
3	4	10	150000
4	3	1	100000

```
source = ColumnDataSource(df)
```

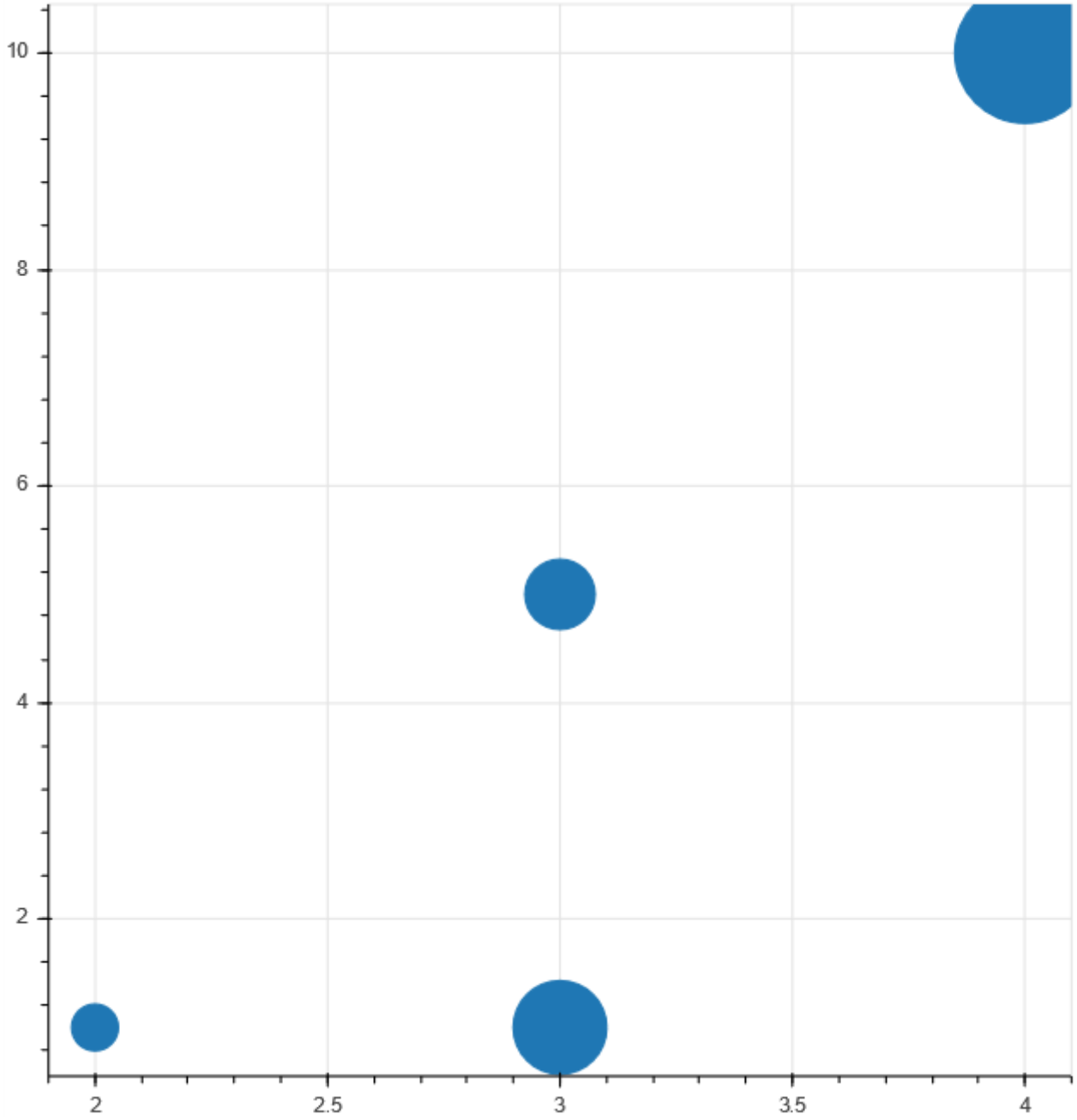
DataFrame as Data Source

Quick conversion

```
source = ColumnDataSource(df)

p = figure()

p.circle(x='grade', y='years’,
         size='salary’, source=source)
```

DataFrame as Data Source

Quick conversion


10
8
6
4
2
2
2.5
3
3.5
4

```
source = ColumnDataSource(df)

p.circle(x='grade', y='years’,
         size='salary’, source=source)
```

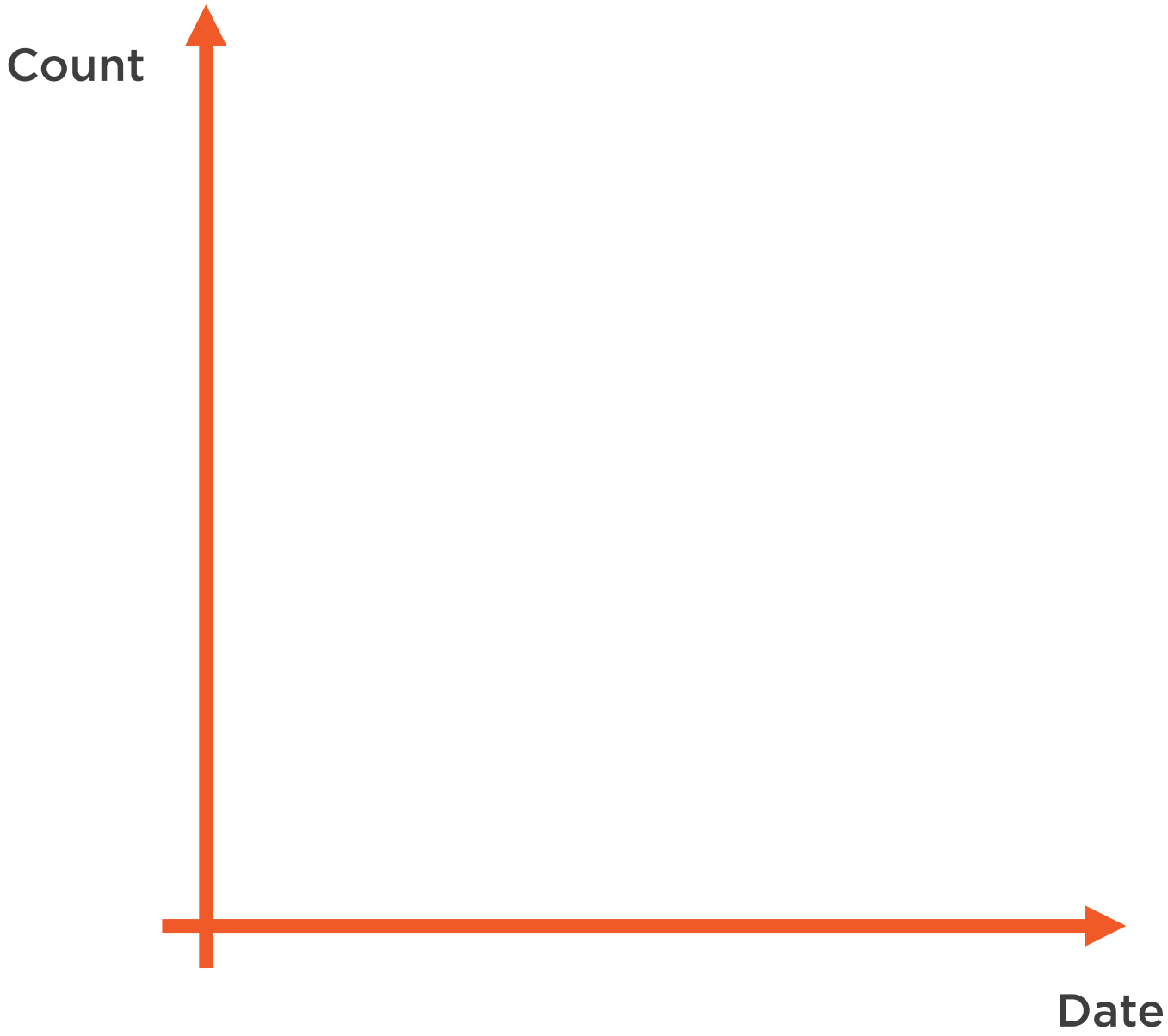
Hover Tool

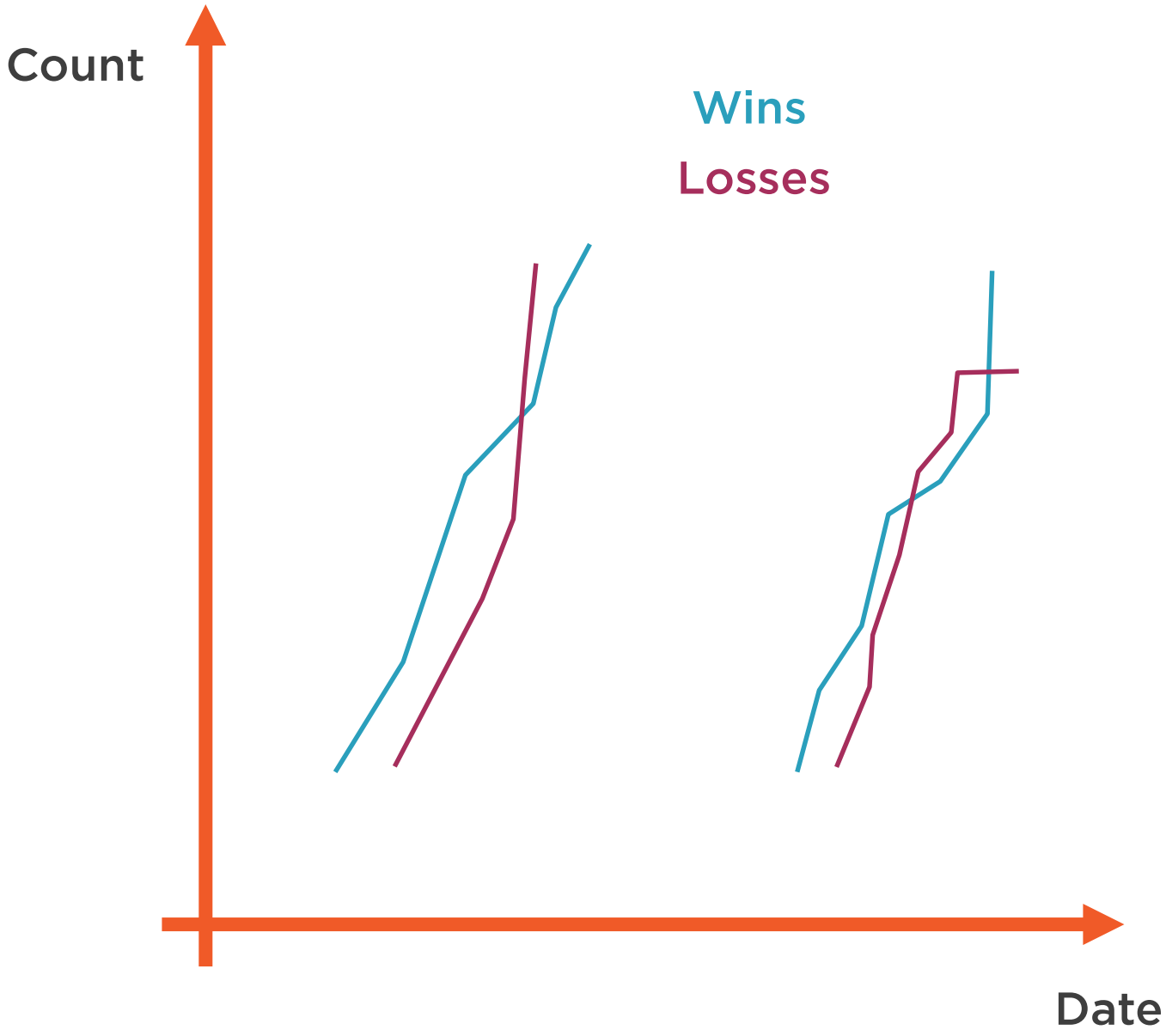
Interactive display of additional information

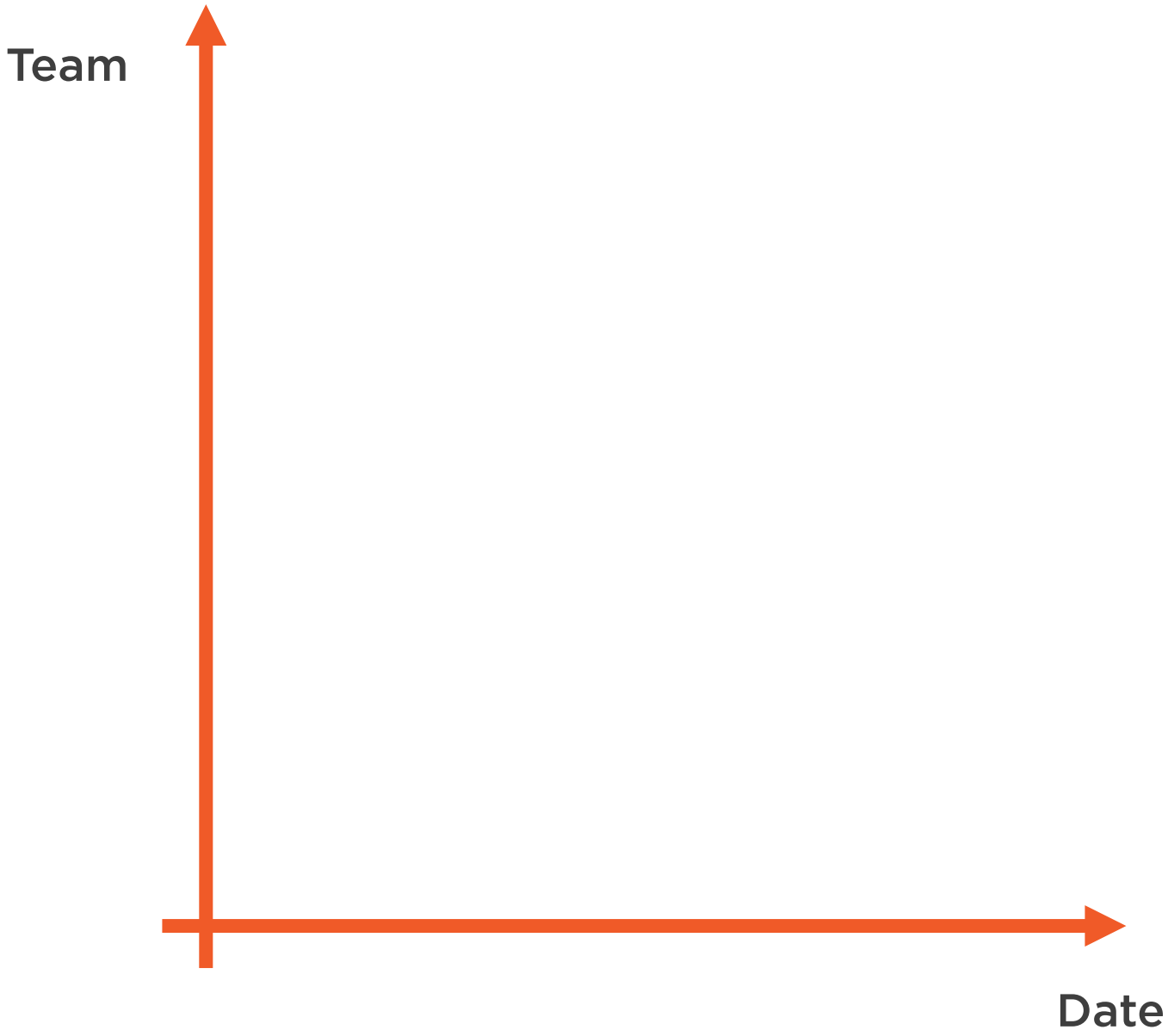
```
source = ColumnDataSource(df)

p.circle(x='grade', y='years’,
         size='salary’, source=source)

hover = HoverTool(tooltips=[("id", "@id")])

p.add_tools(hover)
```

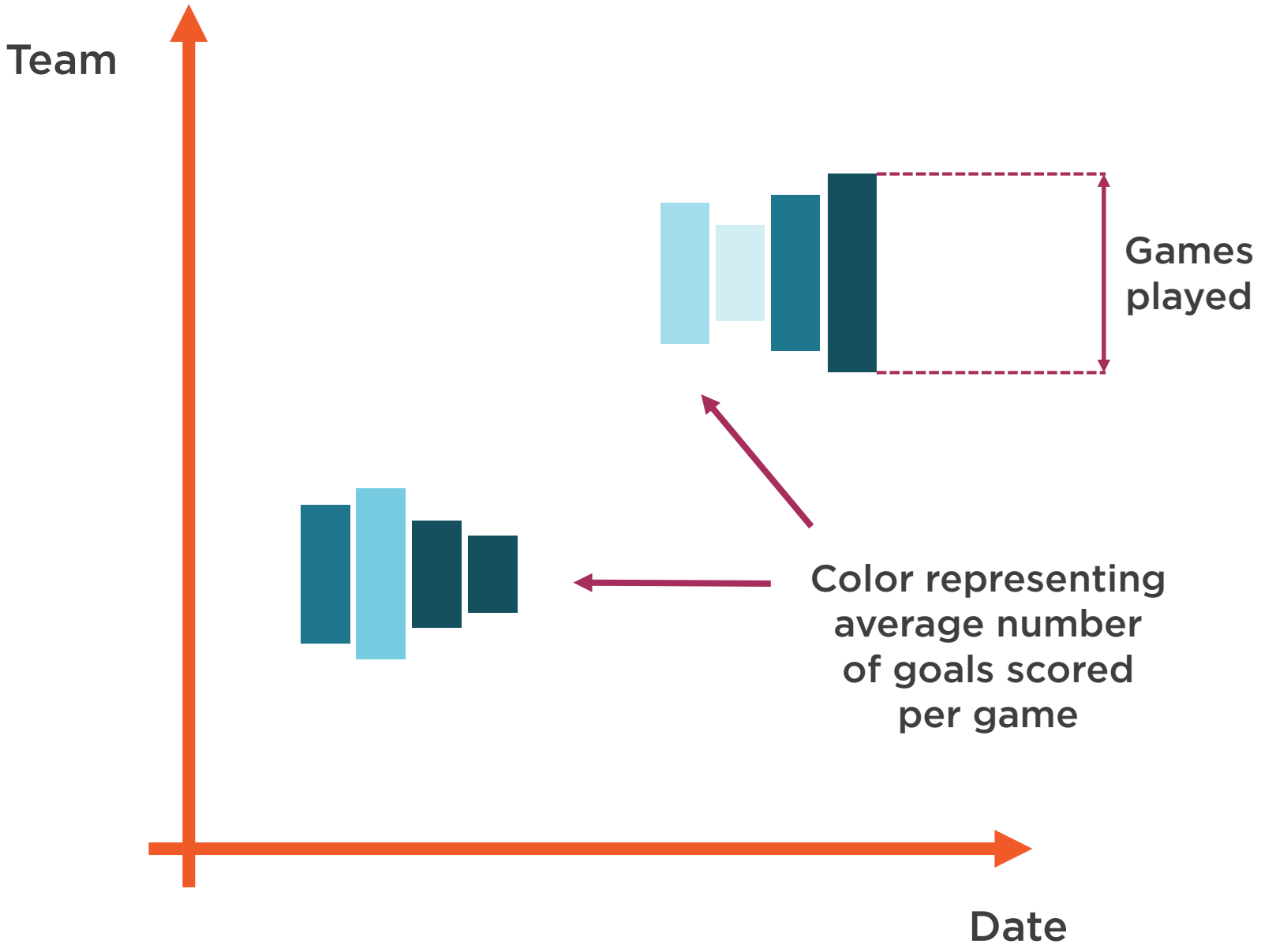
Hover Tool

Interactive display of additional information


Count
Date


Count
Wins
Losses
Date


Team
Date


Team
Games
played
Color representing
average number
of goals scored
per game
Date

Summary

You are familiar with the Bokeh library

You can build complex plots from simple building blocks

You understand the importance of the right representations

Course Wrap-up

Concepts Learned

Concepts Learned

Joins

Concepts Learned

Joins

Wide and long formats

Concepts Learned

Joins

Wide and long formats

Multi-level indexes

Concepts Learned

Joins

Wide and long formats

Multi-level indexes

Time series

Concepts Learned

Joins

Wide and long formats

Multi-level indexes

Time series

Windows

Concepts Learned

Joins

Wide and long formats

Multi-level indexes

Time series

Windows

Complex visualizations

Thank you!