D3.js Data Visualization Fundamentals

The Basics

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Course Outline

The Basics

Working with Data

Mapping

Basic Charting

Enhancing Your Viz

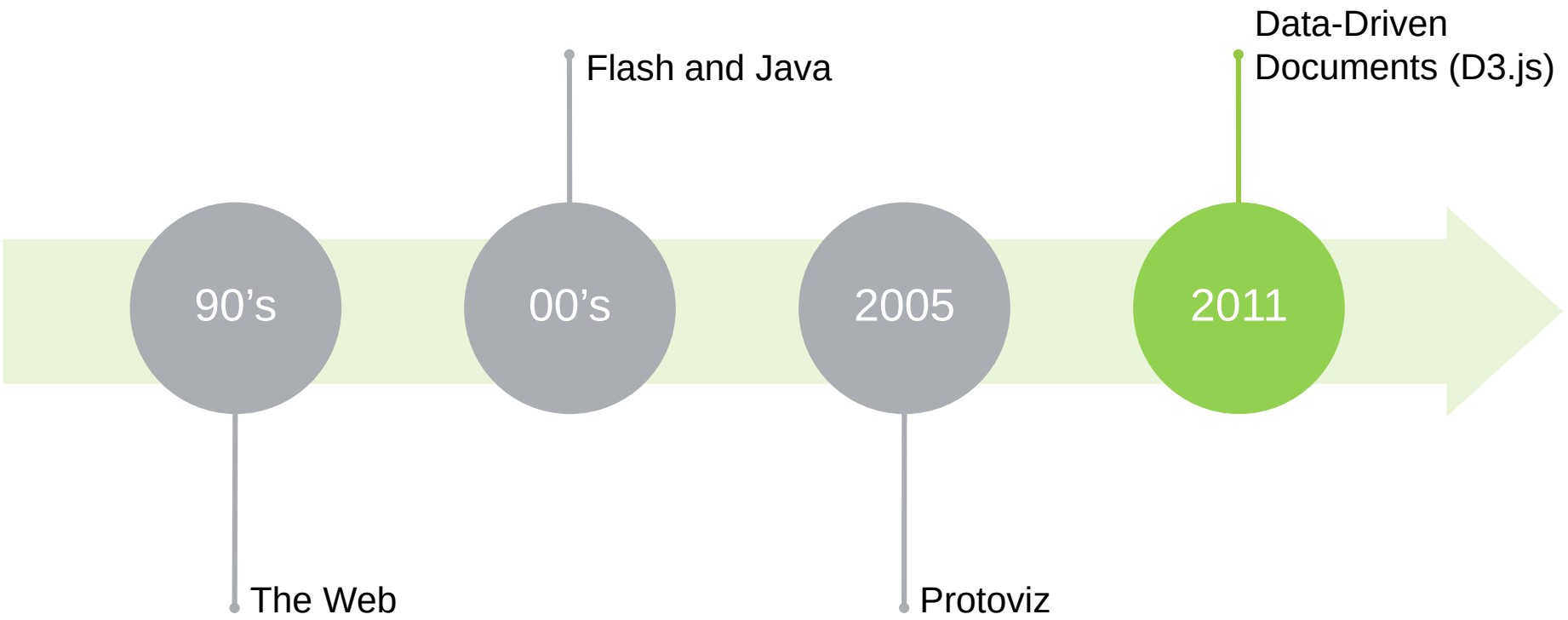
Pulling it All Together

Overview

- D3 Origins
- SVG Objects
- Drawing Shapes
- D3 Principles
- Drawing with Data

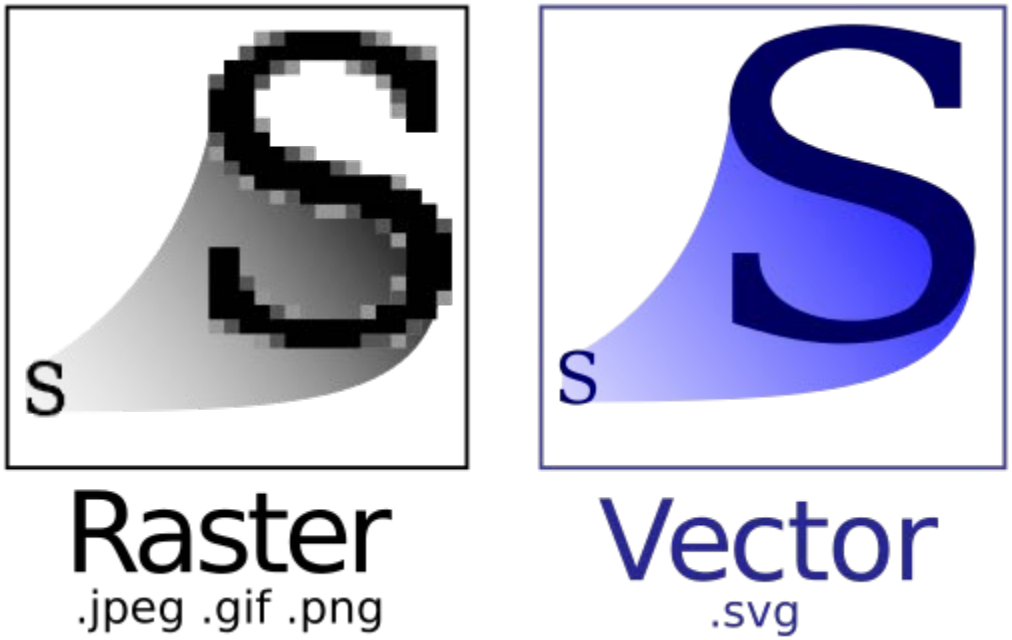
D3 Origins

D3 Origins

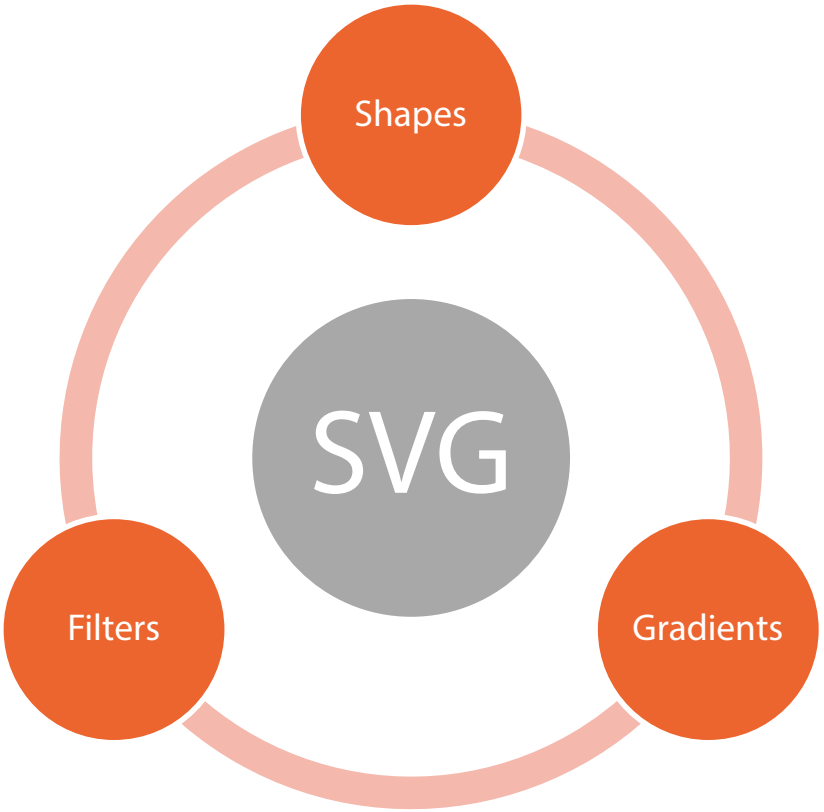

Data-Driven
Documents (D3.js)
Flash and Java
90’s
00’s
2005
2011
The Web
Protoviz

SVG Objects

Scalable Vector Graphics



Scalable Vector Graphics



http://www.w3schools.com/svg/svg_intro.asp

Scalable Vector Graphics

HTML

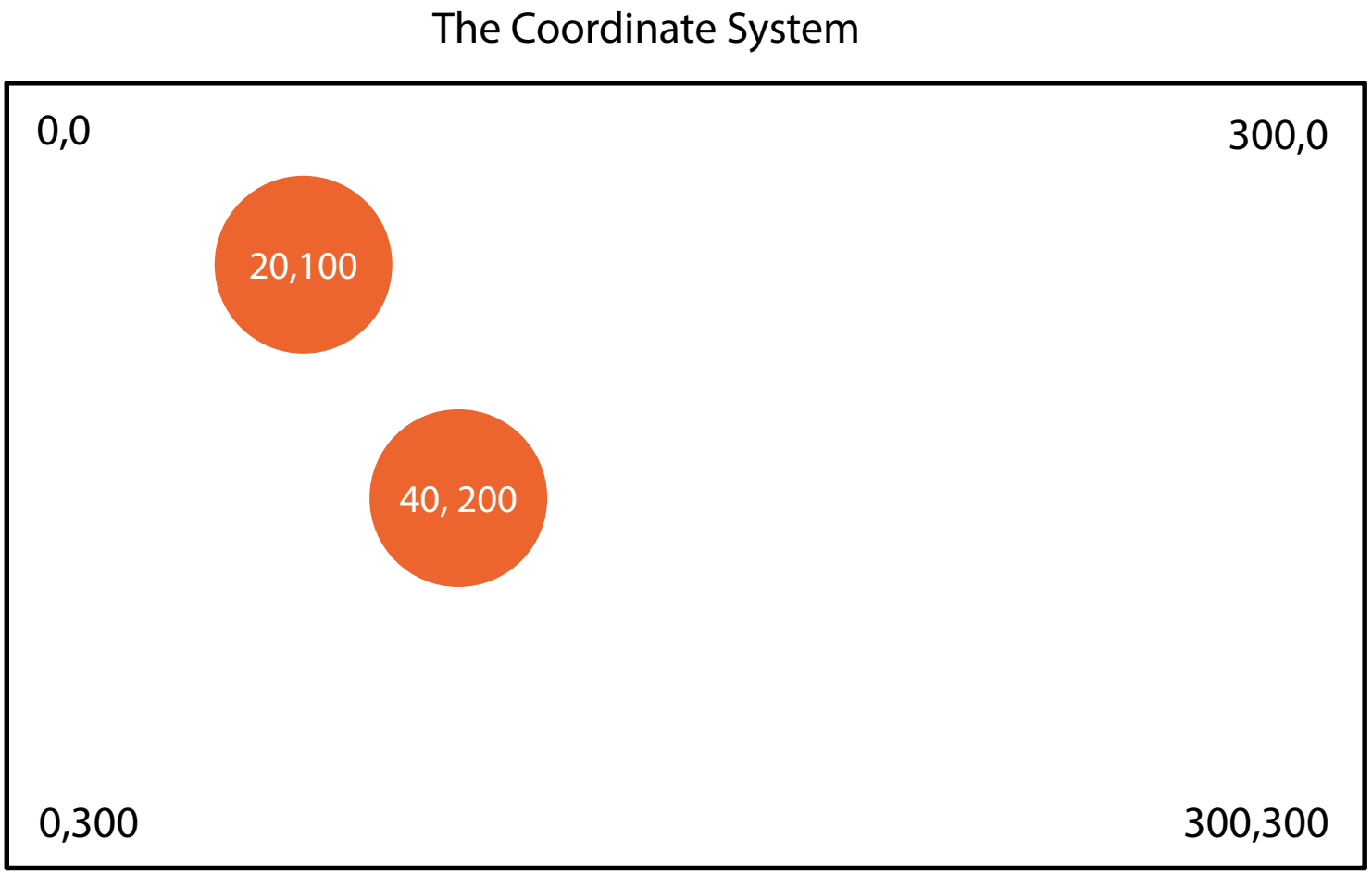
```
<svg>
        <rect width="50" height="200" style="fill: blue;"/>
</svg>
```

D3.js

```
d3.select("body").append("svg").append("rect").attr("width", 50).attr("height", 200).style("fill", "blue");
```

Both Output

Scalable Vector Graphics



Drawing Shapes

D3 Principles

D3 Principles

Selections

```
d3.select("body”) //selects the <body> html element
```

Append Operator

```
d3.select("body")
   .append("svg") //adds new <svg> object
   .append("rect") //add a new <rect> html element
```

Style Operator

```
d3.select("body")
   .append("svg") //adds new <svg> object
   .append("rect") //add a new <rect> html element
      .attr("width", 50) //set the width of our bar
      .attr("height", 200) //set the height of our bar
      .style("fill", "blue"); //fill the bar w/ the color blue
```

Chaining Syntax

With Whitespace

```
d3.select("body")
    .append("svg") //add a new <svg> html element
    .append("rect") //add a new <rect> html element which will be our bar
        .attr("width", 50) //set the width of our bar
        .attr("height", 200) //set the height of our bar
        .style("fill", "blue"); //fill the bar w/ the color blue
```

No Whitespace

```
d3.select("body").append("svg").append("rect").attr("width", 50).attr("height", 200).style("fill", "blue");
```

Drawing with Data

Summary

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- SVG Objects
- Drawing Shapes
- D3 Principles
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