

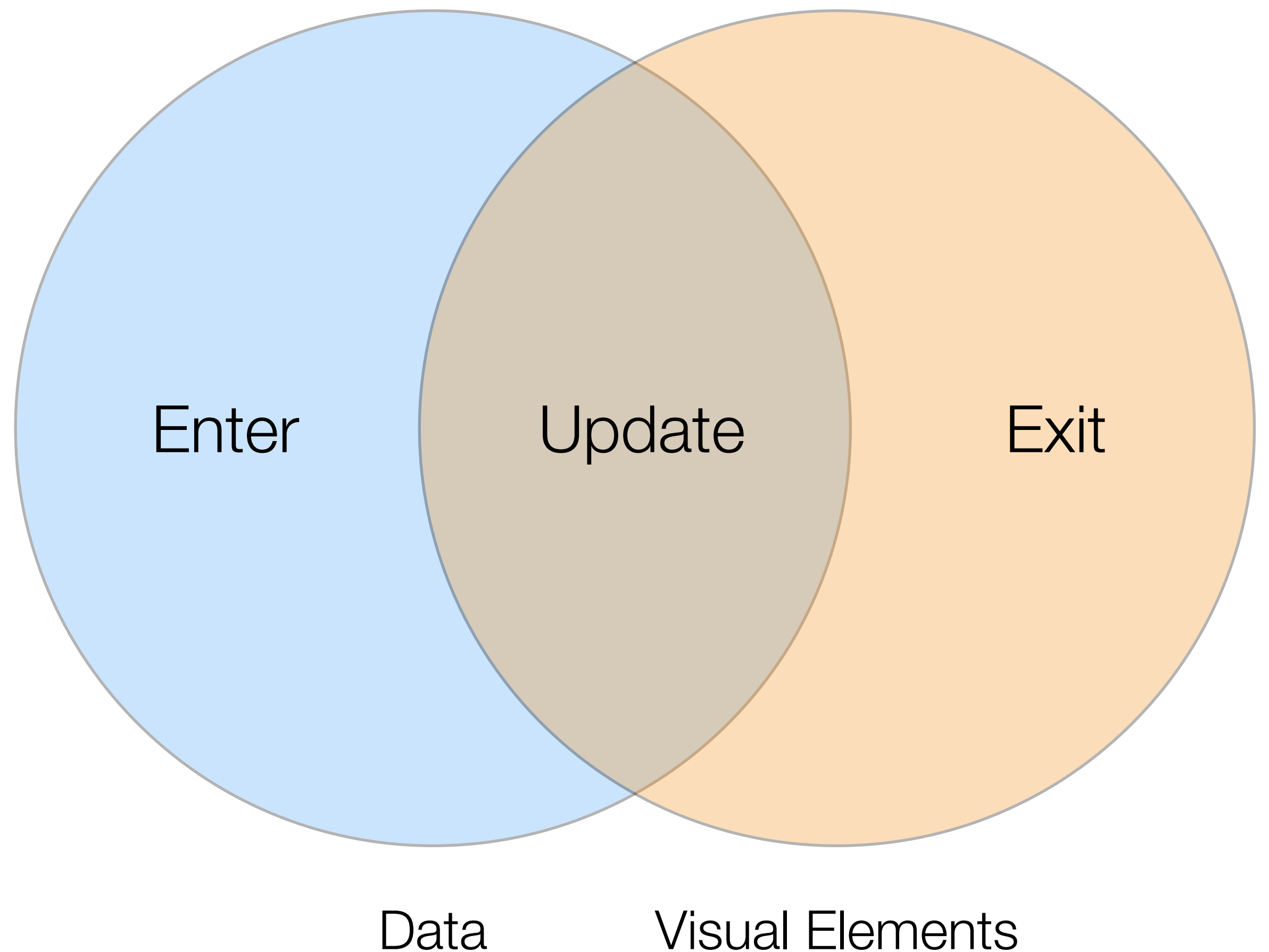
Data Visualization (CSCI 627/490)

Marks and Channels

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D3 Data Joins

- Two groups:
 - data items
 - visual elements
- Three parts of the join between them:
 - enter: `s.enter()`,
 - update: `s`,
 - exit: `s.exit()`



D3 Introduction (Continued)

- <https://observablehq.com/@dakoop/d3-intro>
- Standalone version: <http://dakoop.github.io/IntroD3/>
 - (Updated from [original](#))
- Other references:
 - <https://observablehq.com/@d3/learn-d3>
 - <https://observablehq.com/@d3/gallery>
 - Murrar's book on Interactive Data Visualization for the Web
 - The D3 website: d3js.org

D3 Examples

- Observable Notebook
- Three Bar Charts:
 - Similar Solution
 - With Axes and Scales
 - With Objects and Margin Convention
- More on Margin Convention:
 - <https://observablehq.com/@d3/margin-convention>

Toward Reusable Charts

- D3 does not provide "standard" charts
- E.g. there is no barchart method
- What is a standard chart?
 - "Should you expose the underlying scales and axes, or encapsulate them with chart-specific representations?"
 - "Should your chart support interaction and animation automatically?"
 - "Should the user be able to reach into your chart and tweak some aspect of its behavior?"

[Towards Reusable Charts, M. Bostock, 2012]

Assignment 3

- Upcoming
- Same visualization
- Different tools