Course Topics

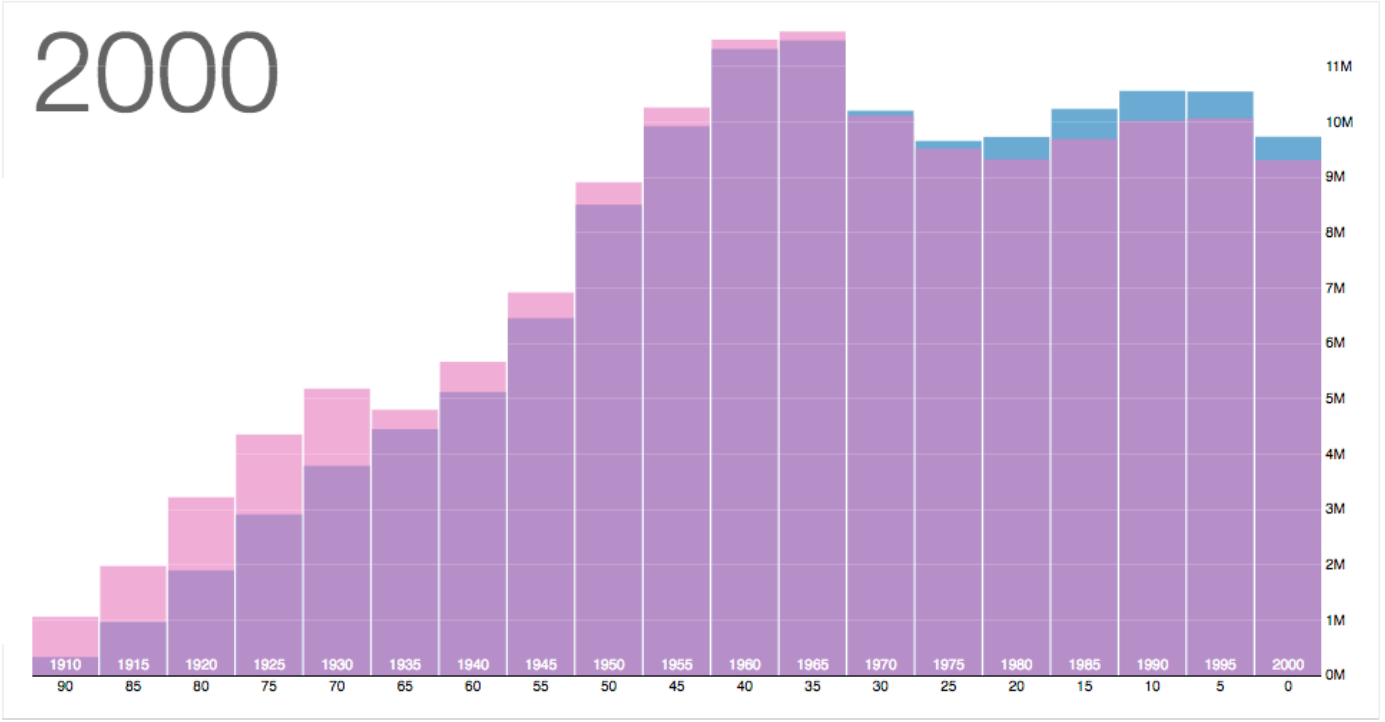
Part One

Fundamental techniques
for encoding data

Components

- Data structure to visual form
- Selecting chart types
- Perception and patterns
- Color and contrast
- Interactions

Population Pyramid




```
year,age,sex,people
1850,0,1,1483789
1850,0,2,1450376
1850,5,1,1411067
1850,5,2,1359668
1850,10,1,1260099
1850,10,2,1216114
1850,15,1,1077133
1850,15,2,1110619
1850,20,1,1017281
```

```
// An SVG element with a bottom-right origin.
var svg = d3.select("body").append("svg")
    .attr("width", width + margin.left + margin.right)
    .attr("height", height + margin.top + margin.bottom)
  .append("g")
    .attr("transform", "translate(" + margin.left + "," + margin.top + ")");

// A sliding container to hold the bars by birthyear.
var birthyears = svg.append("g")
    .attr("class", "birthyears");
```

http://bl.ocks.org/mbostock/4062085

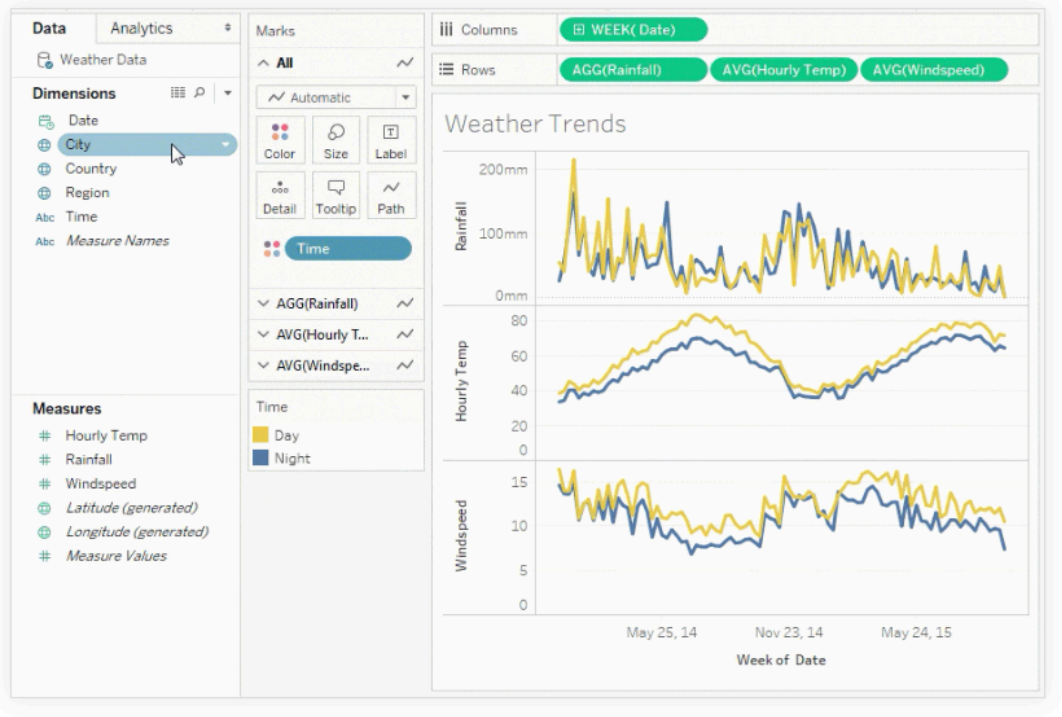
Part Two

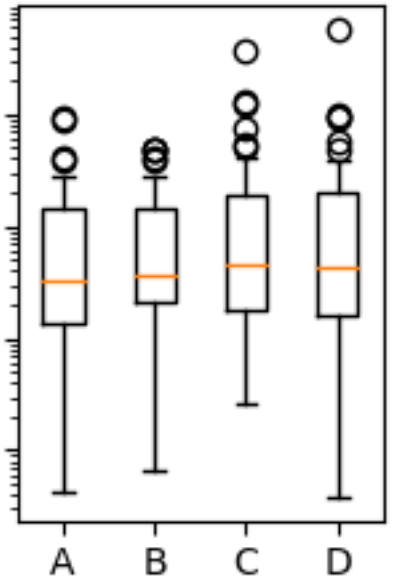
Design and Build

Components

- Exploratory data analysis
- Design and evaluation process
- Python visualization tools

Components





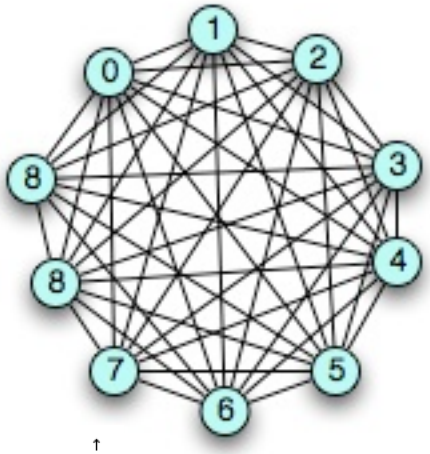

```
plt.boxplot(data)
```

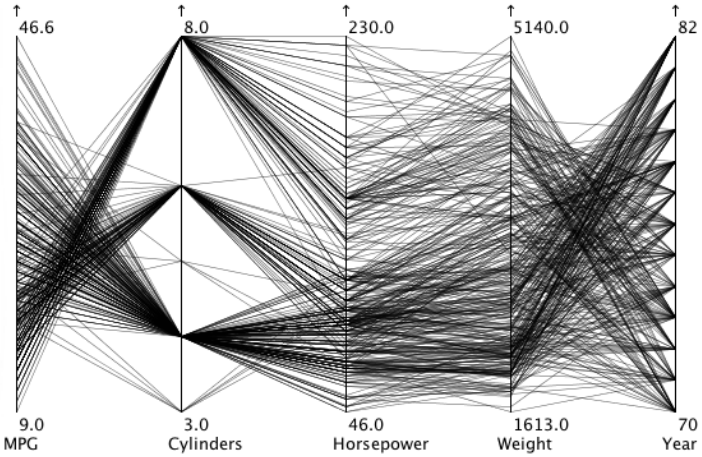
Part Three

Specialized Topics

Components

- Time and place
- Multidimensional data
- Performance
- Networks
- Narrative





Hands-On Approach

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