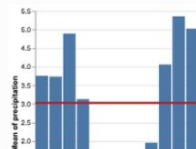


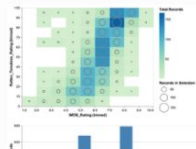
Interactions & Selections in Altair

Interactions and Selections in Altair

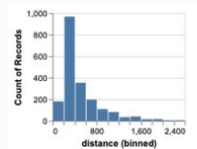
- Pan and zoom
- Selection
- Brushing
- Binding with other views



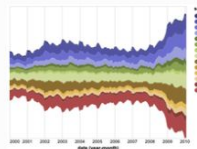
Interactive Average



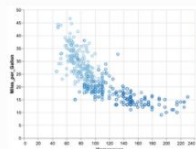
Interactive Chart
with Cross-Highlight



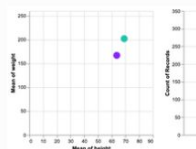
Interactive Crossfilter



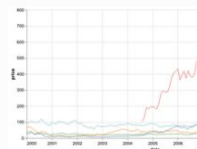
Interactive Legend



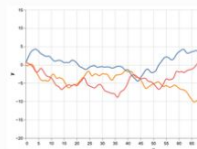
Interactive
Rectangular Brush



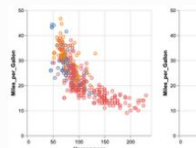
Interactive Scatter
Plot and Linked
Layered Histogram



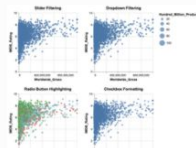
Multi-Line Highlight



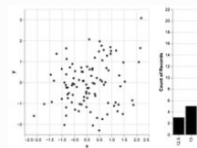
Multi-Line Tooltip



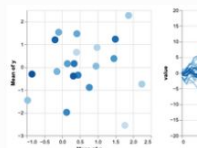
Multi-panel Scatter
Plot with Linked
Brushing



Multiple Interactions



Scatter Plot and
Histogram with
Interval Selection



Selection Detail
Example

How to Make Charts Interactive

```
source = data.cars()
```

1. Create brush selection

```
brush = alt.selection(type='interval')
```

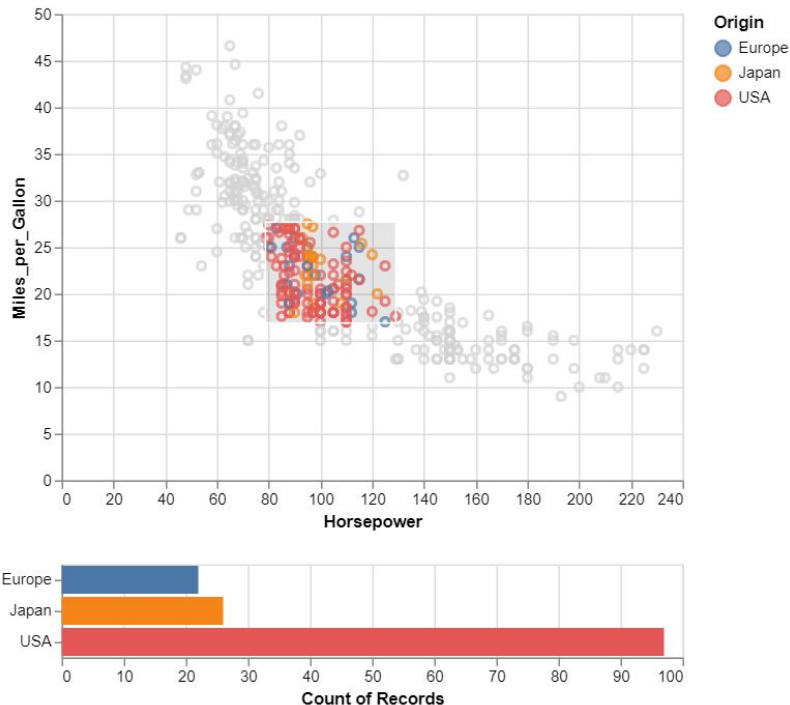
```
points = alt.Chart(source).mark_point().encode(  
    x='Horsepower:Q',  
    y='Miles_per_Gallon:Q',  
    color=alt.condition(brush, 'Origin:N', alt.value('lightgray'))  
).add_selection(  
    brush  
)
```

2. Add selection to the chart

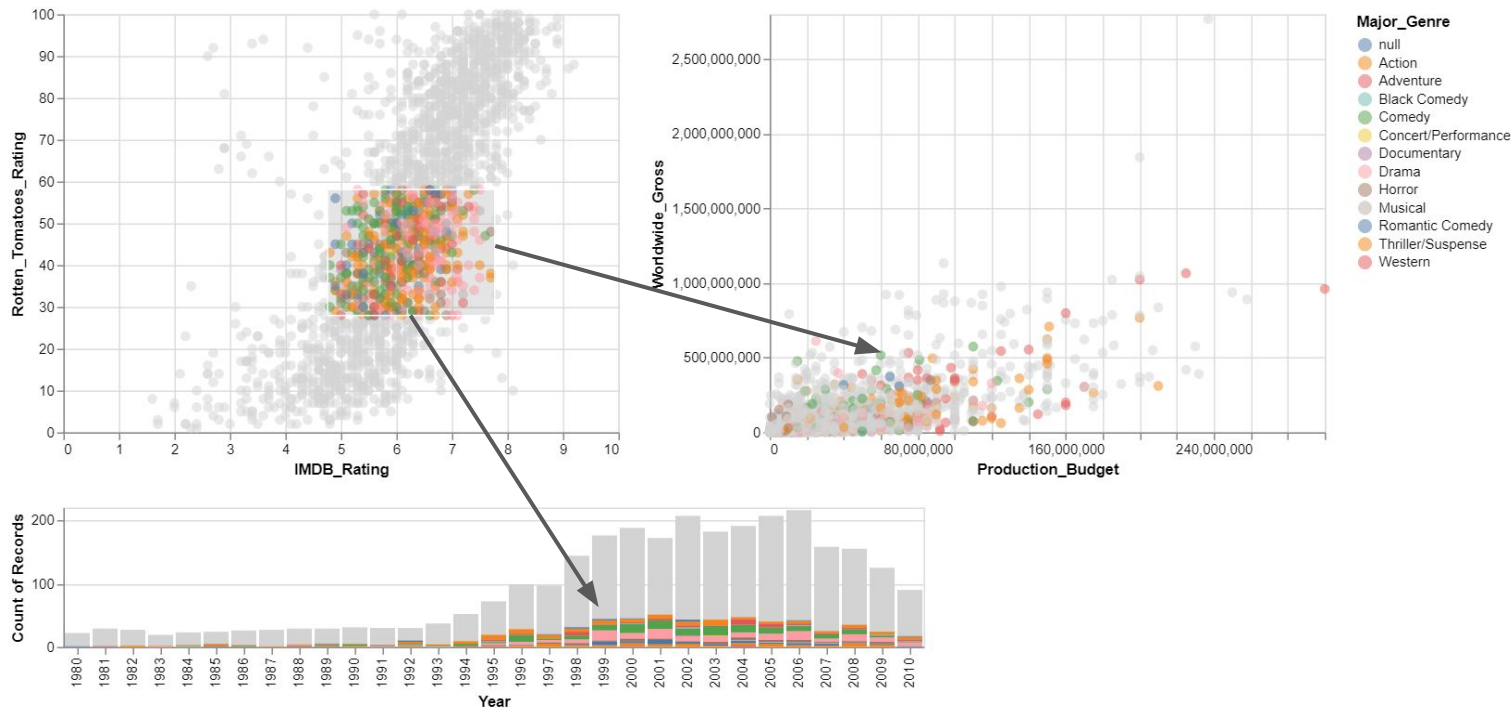
```
bars = alt.Chart(source).mark_bar().encode(  
    y='Origin:N',  
    color='Origin:N',  
    x='count(Origin):Q'  
).transform_filter(  
    brush  
)
```

3. Add the data filter based on the selection

```
points & bars
```



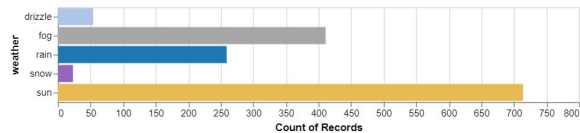
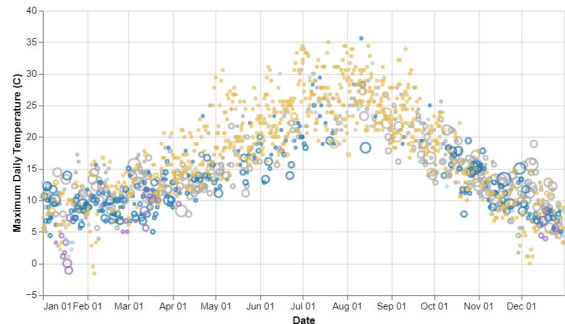
Brushing and Linking on the Movie Dataset



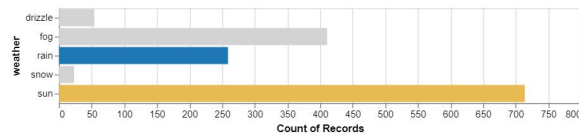
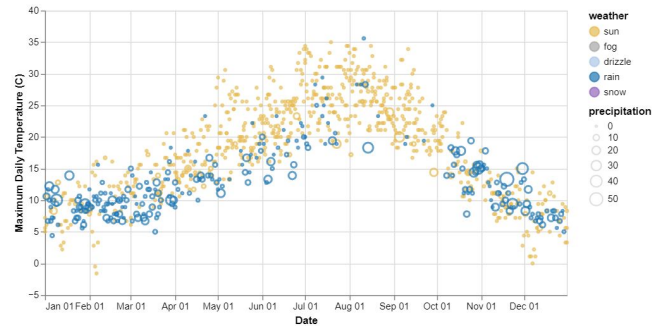
Seattle Weather 2013-2015

1. Selection

Seattle Weather: 2012-2015

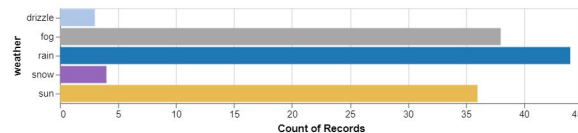
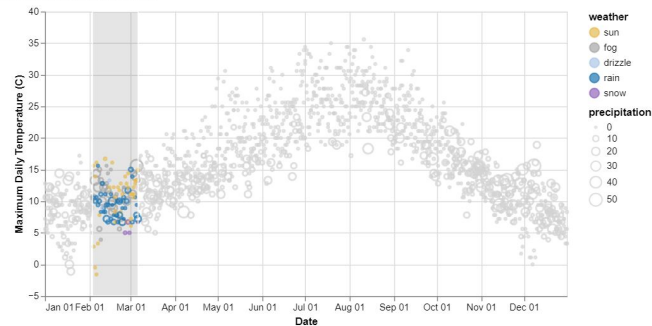


Seattle Weather: 2012-2015



2. Brushing

Seattle Weather: 2012-2015



Exercise: S&P 500 Index

