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Fork of BAX 431 Exercise: Vega-Lite by Nick Rabinowitz

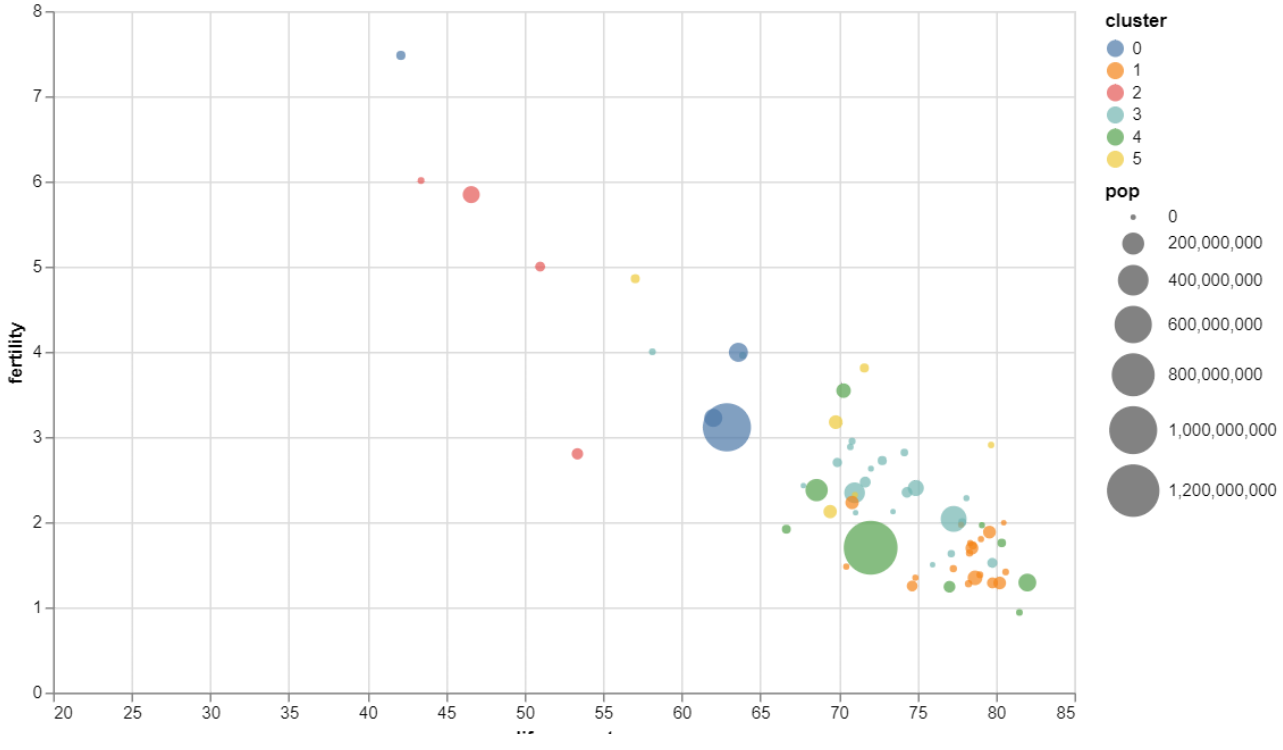
BAX 431 Exercise: Vega-Lite

Vega-Lite is a declarative language for interactive data visualization. It provides a highly flexible JSON grammar for describing visualization elements. It has extensive documentation and examples, and can be used on a variety of platforms, including Javascript and Python (via Altair).

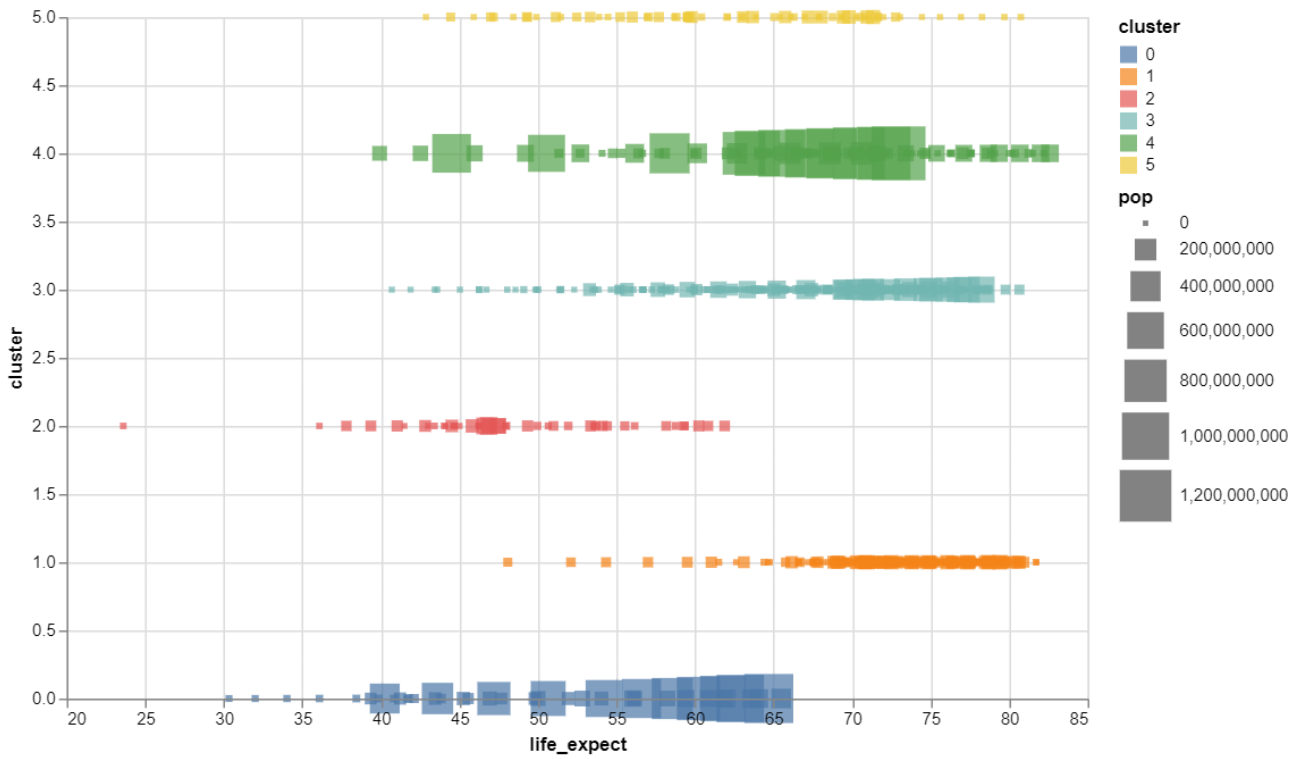
For simplicity, this notebook uses the JSON syntax of Vega-Lite. We'll be using a cleaned-up Gapminder dataset from vega-datasets.

year	country	cluster	pop	life_expect	fertility
1955	"Afghanistan"	0	8891209	30.332	7.7
1960	"Afghanistan"	0	9829450	31.997	7.7
1965	"Afghanistan"	0	10997885	34.02	7.7
1970	"Afghanistan"	0	12430623	36.088	7.7
1975	"Afghanistan"	0	14132019	38.438	7.7
1980	"Afghanistan"	0	15112149	39.854	7.8
1985	"Afghanistan"	0	13796928	40.822	7.9
1990	"Afghanistan"	0	14669339	41.674	8
1995	"Afghanistan"	0	20881480	41.763	8
2000	"Afghanistan"	0	23898198	42.129	7.4792

Visualization

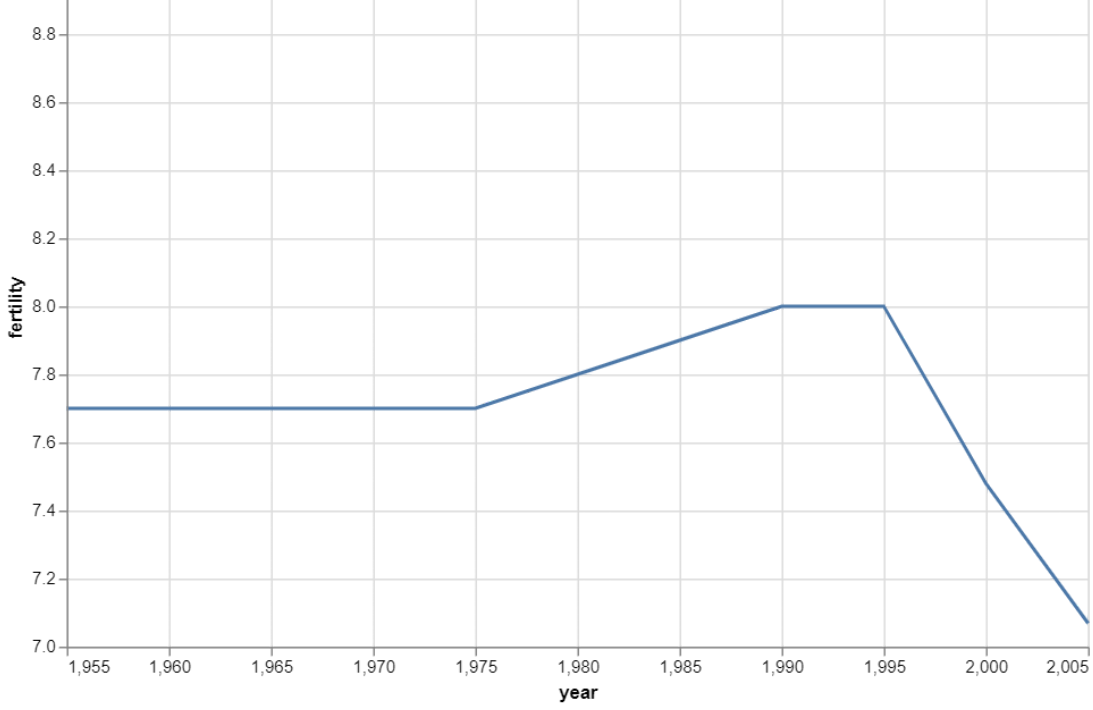


```
vegalite({
  "height": 400,
  "width": 600,
  "data":{
    "values":gapminder
  },
  "transform":[{"filter":{"field":"year","equal":2000}}],
  "mark":{
    "type":"circle"
  },
  "encoding":{
    "x":{"field":"life_expect","scale":{"domain":[20,85]}},
    "y":{"field":"fertility"},
    "size":{"field":"pop","scale":{"range":[10,1000]}},
    "color":{"field":"cluster","type":"nominal"}
   }
})
```




```
vegalite({
  "height": 400,
  "width": 600,
  "data":{
    "values":gapminder
  },

  "mark":{
    "type":"square"
  },
  "encoding":{
    "x":{"field":"life_expect","scale":{"domain":[20,85]}},
    "y":{"field":"cluster"},
    "size":{"field":"pop","scale":{"range":[10,1000]}},
    "color":{"field":"cluster","type":"nominal"}
   }
})
```




```
vegalite({
  "height": 400,
  "width": 600,
  "data":{
    "values":gapminder
  },
  "transform":[{"filter":{"field":"country","equal":"Afghanistan"}}],
  "mark":{
    "type":"line"
  },
  "encoding":{
    "x":{"field": "year",

        "timeunit":"year"},
    "y":{"field":"fertility","type": "quantitative","scale":{"domain":[7,9]}}
   }
})
```

Imports

```
vegalite = ƒ(spec)
```

```
datasets = ▶ Object {anscombe.json: ƒ(), barley.json: ƒ(), birdstrikes.json: ƒ(), budget.json: ƒ(), budgets.json: ƒ(
```

```
gapminder = ▶ Array(693) [Object, Object, Object, Object, Object, Object, Object, Object, Object, Object, Object, Ob
```

```
import {printTable} from @uwdata/data-utilities
```

```

```