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```
[{
  x: 'Oceania',
  low: 1,
  q1: 9,
  median: 16,
  q3: 22,
  high: 24
}, {
  x: 'East Europe',
  low: 1,
  q1: 5,
  median: 8,
  q3: 12,
  high: 16
}, {
  x: 'Australia',
  low: 1,
  q1: 8,
  median: 12,
  q3: 19,
```

```
    high: 26
  }, {
    x: 'South America',
    low: 2,
    q1: 8,
    median: 12,
    q3: 21,
    high: 28
  }, {
    x: 'North Africa',
    low: 1,
    q1: 8,
    median: 14,
    q3: 18,
    high: 24
  }, {
    x: 'North America',
    low: 3,
    q1: 10,
    median: 17,
    q3: 28,
    high: 30
  }, {
    x: 'West Europe',
    low: 1,
    q1: 7,
    median: 10,
    q3: 17,
    high: 22
  }, {
    x: 'West Africa',
    low: 1,
    q1: 6,
    median: 8,
    q3: 13,
    high: 16
  }
}]
```

40, 40, 80, 60

• ?????? Transform

????? map ?

| ?? | ??? |
|------|---|
| ?? | ???? |
| ???? | <pre>function callback(obj) { obj.range = [obj.low, obj.q1, obj.median, obj.q3, obj.high]; return obj;}</pre> |

• ? Geom

K??? schema ?

| ?? | ??? |
|---------|---------|
| ?? | x*range |
| ?? | K?? |
| ?? | box |
| ?? - ?? | #545454 |



?????.png



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-

```
[{  
  low: 1,  
  q1: 9,  
  median: 16,  
  q3: 22,  
  high: 24  
}]
```

-

```
40, 40, 60
```

• ?????? Transform

????? map ?

| | |
|----|------|
| ?? | ??? |
| ?? | ???? |

????

```
function callback(obj) {  
  obj.range = [obj.low, obj.q1, obj.median,  
  obj.q3, obj.high];  
  return obj;  
}
```

• ? Geom

K??? schema ?

| ?? | ??? |
|---------|---------|
| ?? | range*1 |
| ?? | K?? |
| ?? | box |
| ?? - ?? | #545454 |



?????.png



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- 

```
[{
  x: 'Oceania',
  low: 1,
  q1: 9,
  median: 16,
  q3: 22,
  high: 24
}, {
  x: 'East Europe',
  low: 1,
  q1: 5,
  median: 8,
  q3: 12,
  high: 16
}, {
  x: 'Australia',
  low: 1,
  q1: 8,
  median: 12,
  q3: 19,
  high: 26
}, {
  x: 'South America',
```

```
low: 2,  
q1: 8,  
median: 12,  
q3: 21,  
high: 28  
, {  
  x: 'North Africa',  
  low: 1,  
  q1: 8,  
  median: 14,  
  q3: 18,  
  high: 24  
, {  
  x: 'North America',  
  low: 3,  
  q1: 10,  
  median: 17,  
  q3: 28,  
  high: 30  
, {  
  x: 'West Europe',  
  low: 1,  
  q1: 7,  
  median: 10,  
  q3: 17,  
  high: 22  
, {  
  x: 'West Africa',  
  low: 1,  
  q1: 6,  
  median: 8,  
  q3: 13,  
  high: 16  
}]
```

-

50, 50, 100

• ?????? Transform

?????map?

| ?? | ??? |
|------|--|
| ?? | ???? |
| ???? | <pre>function callback(obj) { obj.range = [obj.low, obj.q1, obj.median, obj.q3, obj.high]; return obj;} </pre> |

• ??? Scale

range? Y? ?

| ?? | ??? |
|---------|--------|
| ?? | range |
| ?? | linear |
| ??????? | ?? |
| ??? | 35 |

• ? Geom

K??? schema ?

| ?? | ??? |
|------|---------|
| ?? | x*range |
| ?? | K?? |
| ???? | x |

| | |
|----|-----|
| ?? | box |
| ?? | 60 |

• ?? Legend

| ?? | ??? |
|------|-----|
| ?? | ?? |
| ?? | x |
| ?? | ? |
| ?? | ?? |
| ???? | ?? |

• ??? Coord

| ?? | ??? |
|-------|------|
| ?? | ???? |
| ????? | 0.4 |



?????.png



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```
[{
  x: 'A',
  low: 20000,
  q1: 26000,
  median: 27000,
  q3: 32000,
  high: 38000,
  outliers: [50000, 52000]
}, {
  x: 'B',
  low: 40000,
  q1: 49000,
  median: 62000,
  q3: 73000,
  high: 88000,
  outliers: [32000, 29000, 106000]
}, {
  x: 'C',
  low: 52000,
  q1: 59000,
  median: 65000,
  q3: 74000,
  high: 83000,
```

```
    outliers: [91000]
  }, {
    x: 'D',
    low: 58000,
    q1: 96000,
    median: 130000,
    q3: 170000,
    high: 200000,
    outliers: [42000, 210000, 215000]
  }, {
    x: 'E',
    low: 24000,
    q1: 28000,
    median: 32000,
    q3: 38000,
    high: 42000,
    outliers: [48000]
  }, {
    x: 'F',
    low: 47000,
    q1: 56000,
    median: 69000,
    q3: 85000,
    high: 100000,
    outliers: [110000, 115000, 32000]
  }, {
    x: 'G',
    low: 64000,
    q1: 74000,
    median: 83000,
    q3: 93000,
    high: 100000,
    outliers: [110000]
  }, {
    x: 'H',
    low: 67000,
    q1: 72000,
    median: 84000,
    q3: 95000,
    high: 110000,
```

```
outliers: [57000, 54000]
}]
```

-

```
40, 40, 60, 60
```

- ?????? Transform

????? map ?

| ?? | ??? |
|------|---|
| ?? | ???? |
| ???? | <pre>function callback(obj) { obj.range = [obj.low, obj.q1, obj.median, obj.q3, obj.high]; return obj;}</pre> |

- Scale

range? Y? ?

| ?? | ??? |
|---------|--------|
| ?? | range |
| ?? | linear |
| ??????? | ?? |
| ??? | 0 |
| ??? | 250000 |

outliers? Y? ?

| ?? | ??? |
|----|----------|
| ?? | outliers |

| | |
|--------|--------|
| ?? | linear |
| ?????? | ?? |
| ??? | 0 |
| ??? | 250000 |

- ??? Axis

outliers? Y? ?

| | |
|----|----------|
| ?? | ??? |
| ?? | ?? |
| ?? | outliers |

- □ Geom

K??? schema ?

| | |
|----|---------|
| ?? | ??? |
| ?? | x*range |
| ?? | K?? |
| ?? | box |

??? point ?

| | |
|----|------------|
| ?? | ??? |
| ?? | x*outliers |
| ?? | ?? |
| ?? | circle |
| ?? | 3 |