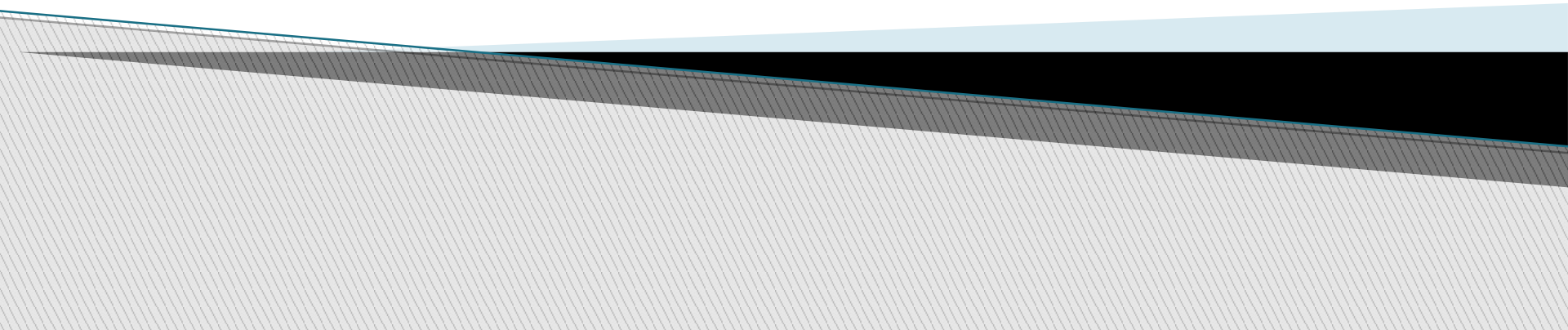


D3.js 柱形图

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柱形图任务分解

1. 在页面添加一个 SVG 绘图区，添加一个矩形框
2. 添加 N 个矩形，向下生长
3. 矩形向上生长
4. 矩形添加文本数值
5. 更新数据
6. 排序
7. 增加数据

1 在页面添加一个 SVG 绘图区和矩形框

```
<script>
```

```
var width=document.body.clientWidth;  
var height=document.body.clientHeight;  
var dataset=[189,300,60,200,120,150];  
var svg=d3.select("body")  
    .append("svg")  
    .attr("width",width)  
    .attr("height",height);  
var rect=svg.selectAll("rect")  
    .data(dataset)  
    .enter()  
    .append("rect")  
    .attr("fill","green")  
    .attr("x",100)  
    .attr("y",50)  
    .attr("width",240)  
    .attr("height",300)
```

```
</script>
```

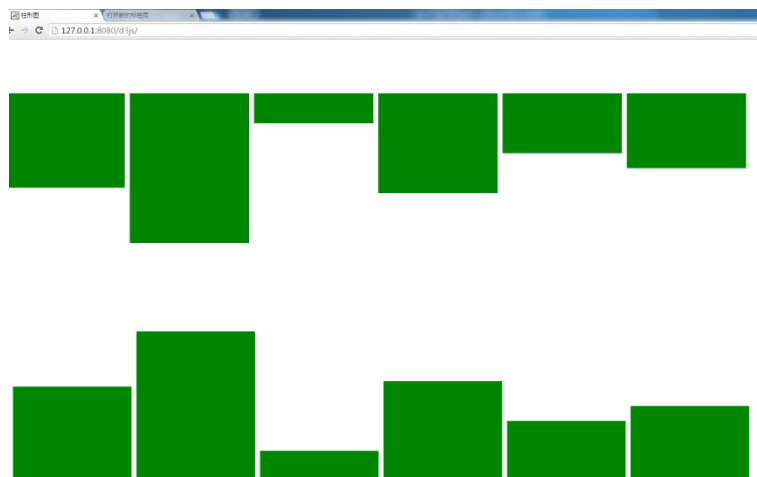


2-3 矩形向上生长

<script>

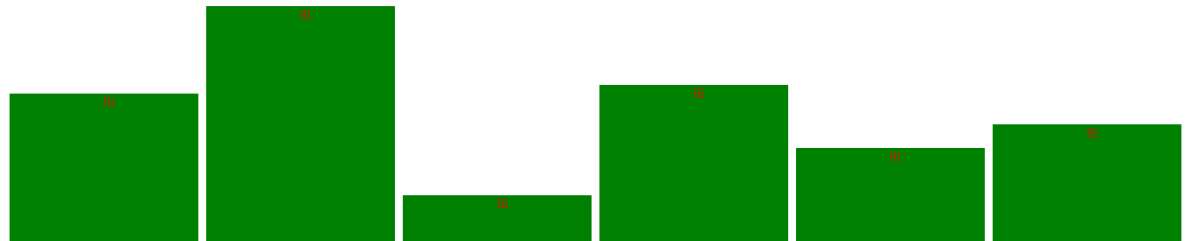
```
var width=document.body.clientWidth;  
var height=document.body.clientHeight;  
var dataset=[189,300,60,200,120,150];  
var svg=d3.select("body")  
    .append("svg")  
    .attr("width",width)  
    .attr("height",height);  
var rect=svg.selectAll("rect")  
    .data(dataset)  
    .enter()  
    .append("rect")  
    .attr("fill","green")  
    .attr("x",function(d,i){return i*250})  
    .attr("y",function(d,i){return 800-d})  
    .attr("width",240)  
    .attr("height",function(d,i){return d})
```

</script>



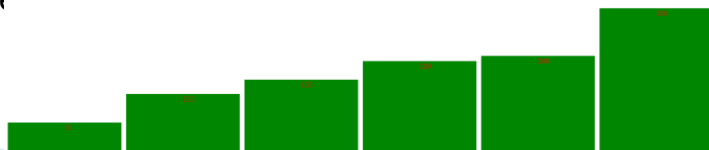
4 矩形添加文本数值

- ▶ `var text=svg.selectAll("text")`
- ▶ `.data(dataset)`
- ▶ `.enter()`
- ▶ `.append("text")`
- ▶ `.attr("fill","red")`
- ▶ `.attr("x",function(d,i){return i*250})`
- ▶ `.attr("y",function(d,i){return 800-d})`
- ▶ `.attr("dx",120)`
- ▶ `.attr("dy","1em")`
- ▶ `.text("Hi")`



5 更新数据

```
function draw(){  
  var updateRect=svg.selectAll("rect")  
    .data(dataset);  
  var enterRect=updateRect.enter();  
  var exitRect=updateRect.exit();  
  
  updateRect.attr("fill","green")  
    .attr("x",function(d,i){return i*250})  
    .attr("y",function(d,i){return 600-d})  
    .attr("width",240)  
    .attr("height",function(d,i){return d})  
  
  enterRect.append("rect")  
    .attr("fill","green")  
    .attr("x",function(d,i){return i*250})  
    .attr("y",function(d,i){return 600-d})  
    .attr("width",240)  
    .attr("height",function(d,i){return d})  
  
  exitRect.remove();  
}
```

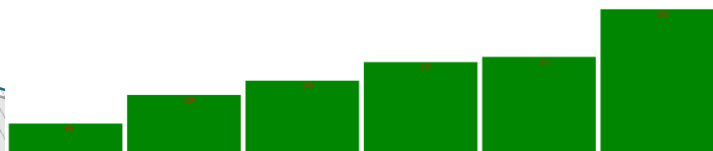


5 更新文本

```
▶ var updateText=svg.selectAll("text")
▶     .data(dataset);
▶     var enterText=updateText.enter();
▶     var exitText=updateText.exit();
▶
▶     updateText.attr("fill","red")
▶         .attr("x",function(d,i){return i*250})
▶         .attr("y",function(d,i){return 600-d})
▶         .attr("dx",120)
▶         .attr("dy","1em")
▶         .text(function(d){return d;});
▶     enterText.append("text")
▶         .attr("fill","red")
▶         .attr("x",function(d,i){return i*250})
▶         .attr("y",function(d,i){return 600-d})
▶         .attr("dx",120)
▶         .attr("dy","1em")
▶         .text(function(d){return d;});
▶     exitText.remove();
```

6 排序

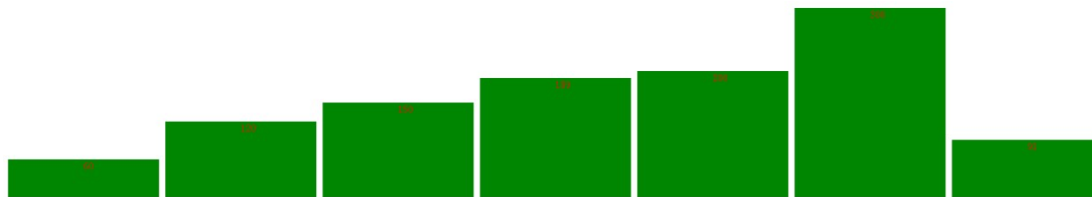
- ▶ `<button type="button" onclick="mysort()">`
排序 `</button>`
- ▶ function **mysort()**{
- ▶ dataset.sort(d3.ascending);
- ▶ draw();
- ▶ }



7 添加数据

- ▶ `<button type="button" onclick="myadd()">`
增加数据 `</button>`

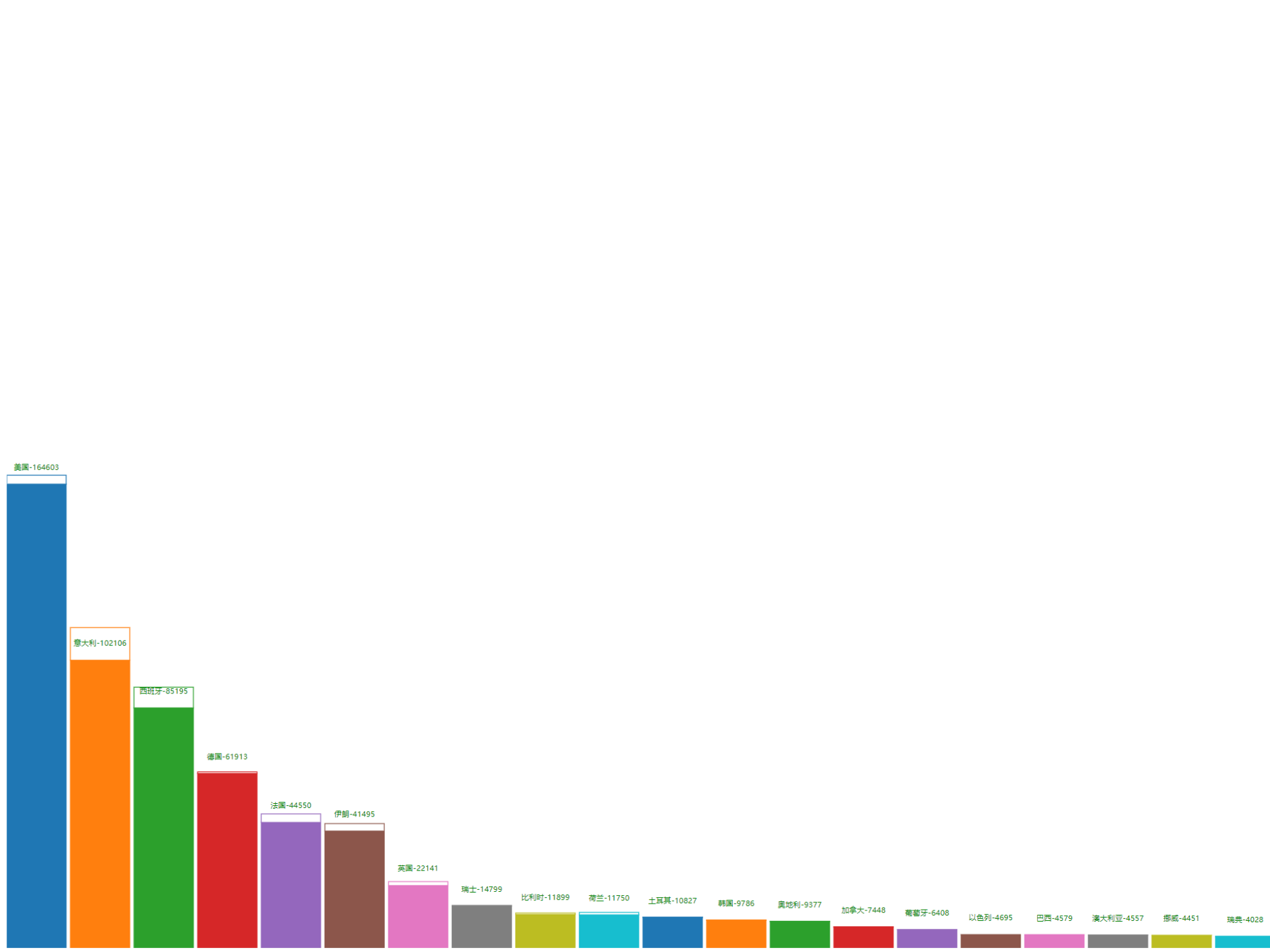
```
function myadd(){  
  dataset.push( Math.floor(Math.random() * 100) );  
  draw();  
}
```



2020.3.31 日新冠肺炎国外数据

- ▶ 数据来源<http://47.95.197.26:60000/kh/hubei/>
- ▶ 加载 CSV 数据
- ▶ `d3.csv("covid19.csv", function(data) {`
- ▶ `console.log(data);`
- ▶ `});`





作业

主题数据自选

推荐一组：

- 新冠肺炎数据 <http://47.95.197.26:60000/kh/hubei>
- 诗词数据：<https://mp.weixin.qq.com/s/VCIWI6gHexXYaRLHWkuxvg>
- 2019 全年电影票房
- 2019 收视率数据
- 软件可视化
- 算法可视化

