

02

OPEN ORIENTED

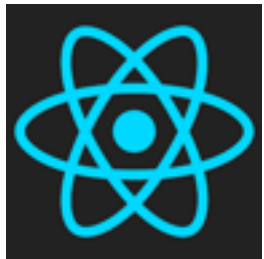
凹凸实验室

浅谈virtual dom

什么是virtual dom

模拟DOM树的轻量级javascript对象

使用virtual dom的前端类库：



React

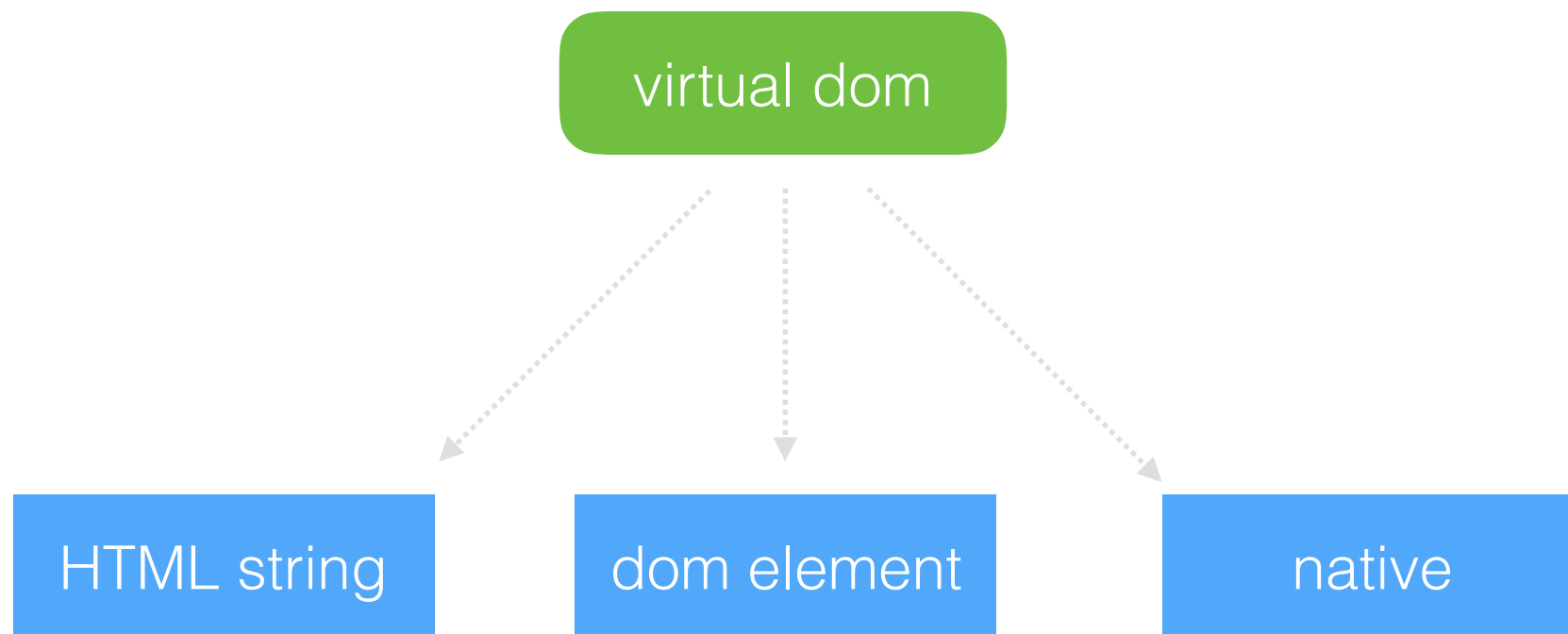


Vue.js 2.0



why virtual dom

- dom 操作慢, javascript 快
- 跨平台, 通过不同的渲染引擎生成不同平台下的UI



virtual dom实现

- 用js对象映射dom树
- 数据改变时，对virtual dom树进行比较，获取差异
- 将差异渲染到dom树上

virtual dom实现 — 映射dom树

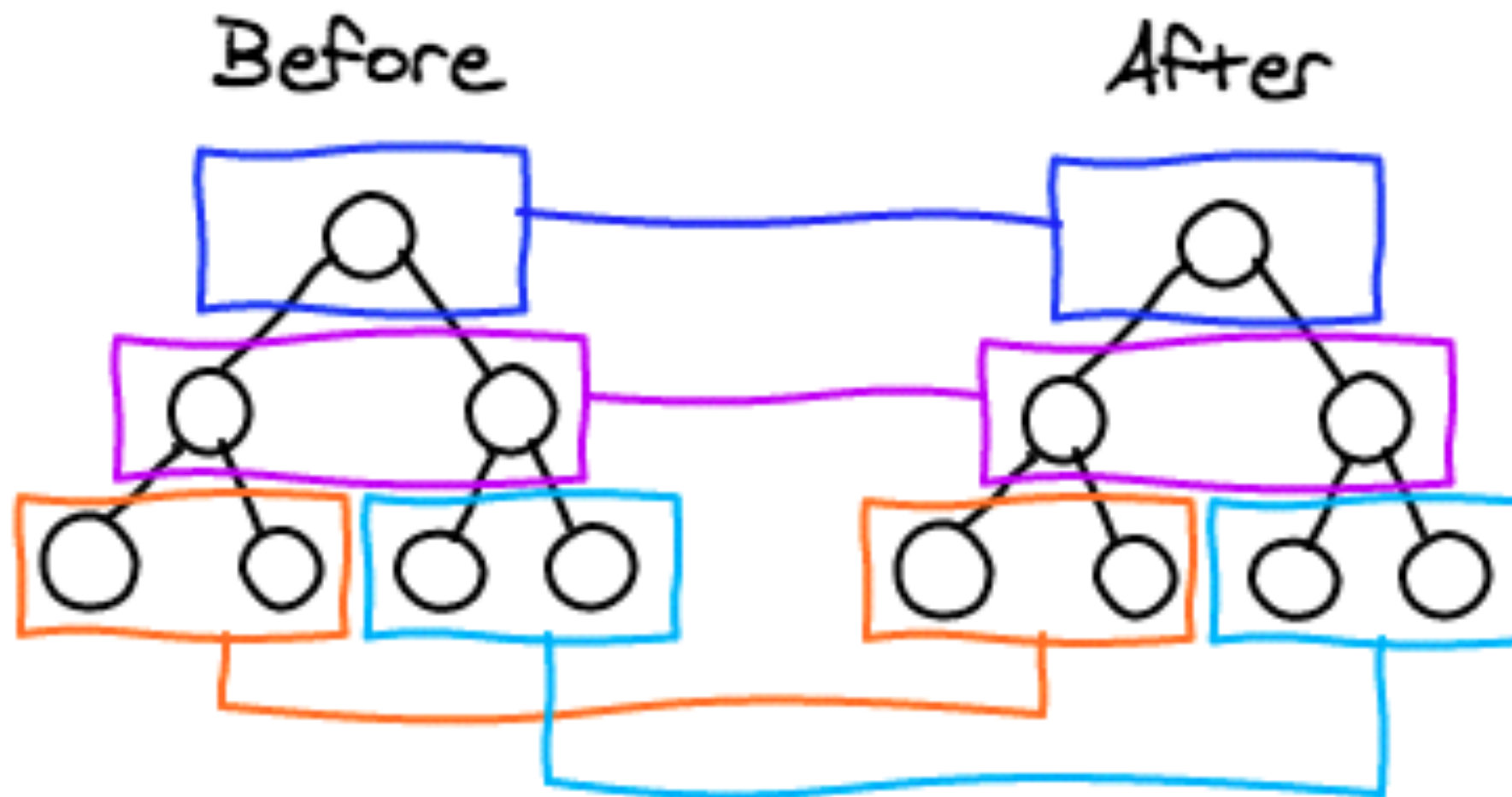
```
<ul id="list">  
  <li class="item">Item 1</li>  
  <li class="item">Item 2</li>  
  <li class="item">Item 3</li>  
</ul>
```



```
{  
  tagName: 'ul',  
  props: {  
    id: 'list'  
  },  
  children: [  
    { tagName: 'li', props: {class: 'item'}, children: ["Item 1"] },  
    { tagName: 'li', props: {class: 'item'}, children: ["Item 2"] },  
    { tagName: 'li', props: {class: 'item'}, children: ["Item 3"] }  
  ]  
}
```

virtual dom实现 — diff (以react为例)

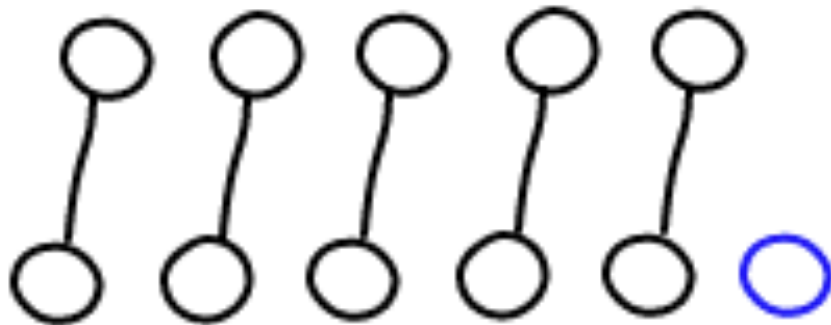
- tree比较



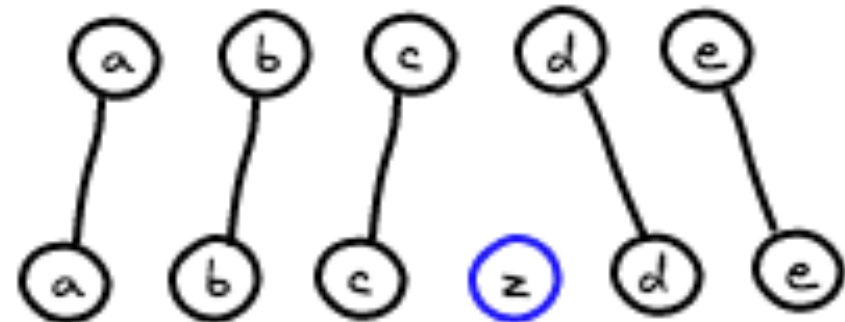
virtual dom实现 — diff

- 列表比较

Without Keys

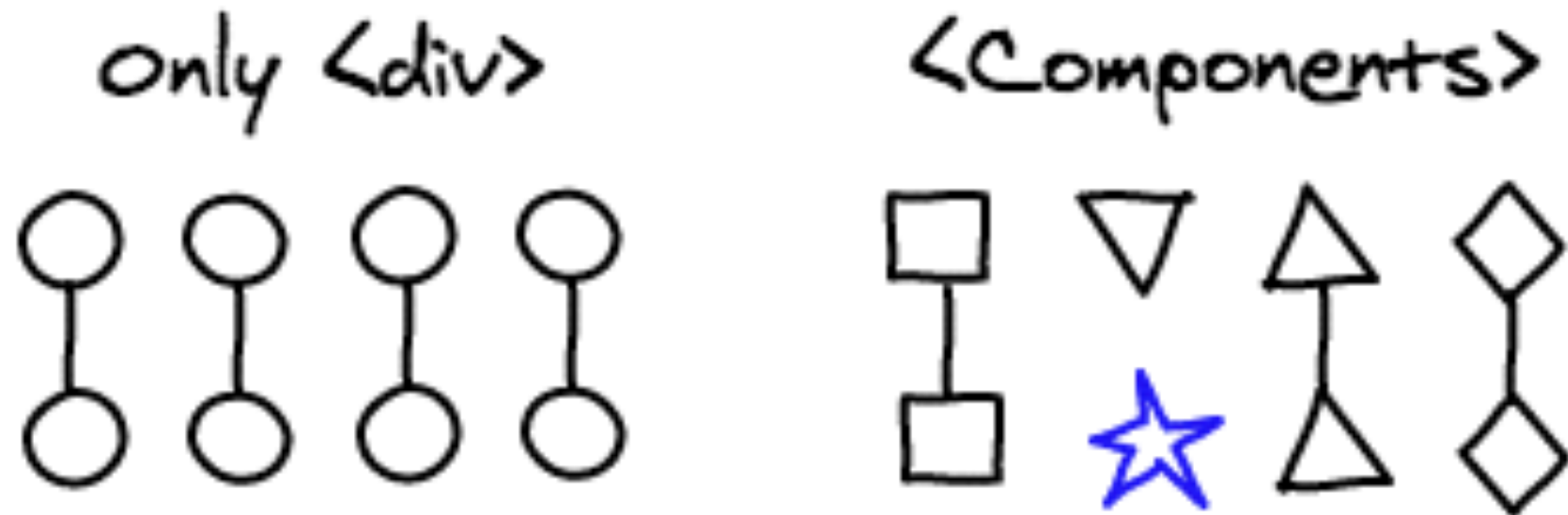


With Keys

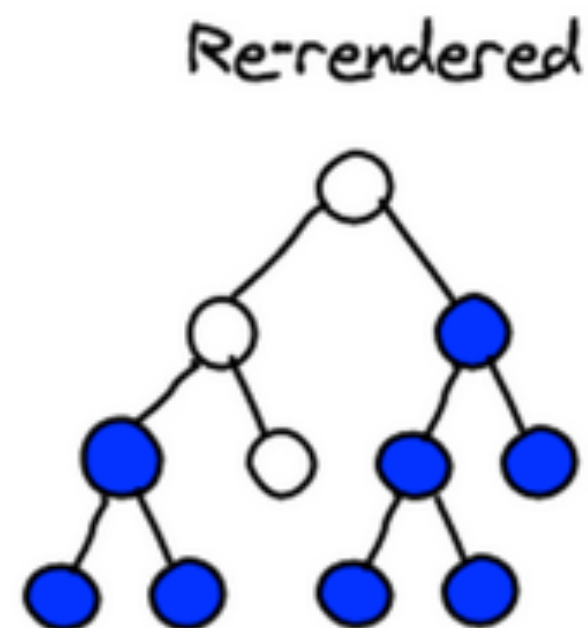
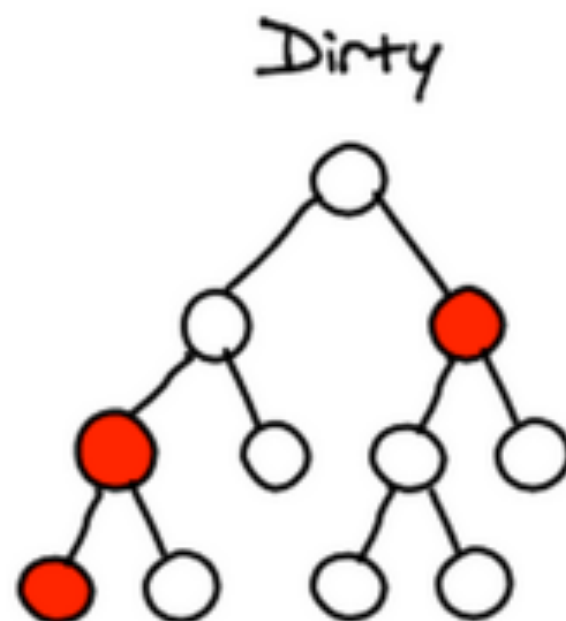
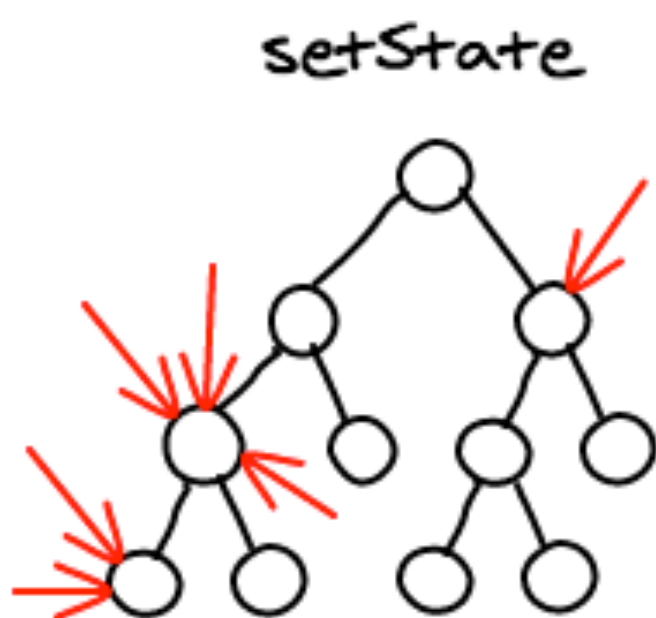


virtual dom实现 - 差异比较

- Components比较



virtual dom实现 — 渲染dom树



THANKS
FOR YOUR WATCHING