



# 使用实时通信开发 H5互动游戏

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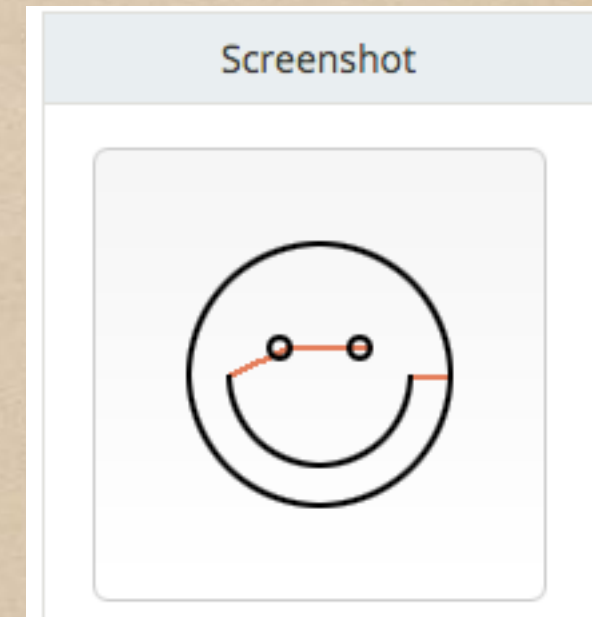
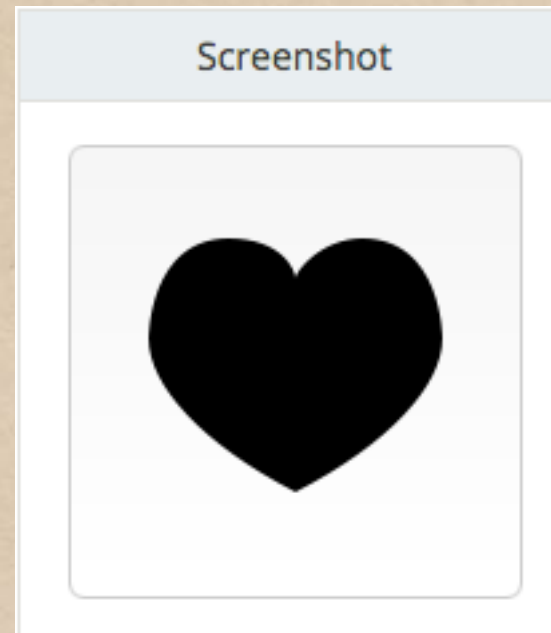
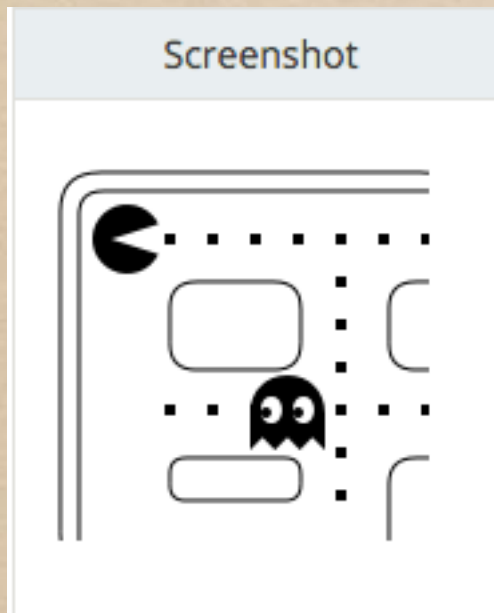


# 议程

- ◆ HTML5 Canvas
- ◆ 实时通信 LeanMessage
- ◆ Node7.6 async/await
- ◆ 实战：你画我猜



# HTML5 Canvas



[https://developer.mozilla.org/en-US/docs/Web/API/Canvas\\_API/Tutorial/Drawing\\_shapes](https://developer.mozilla.org/en-US/docs/Web/API/Canvas_API/Tutorial/Drawing_shapes)

**Programming is an art, not a science.**



# HTML5 Canvas

## HTML

```
<canvas id="canvas"></canvas>
```

## JavaScript

```
var canvas = document.getElementById('canvas');  
var ctx = canvas.getContext('2d');  
ctx.beginPath();  
ctx.moveTo(75, 50);  
ctx.lineTo(100, 75);  
ctx.lineTo(100, 25);  
ctx.lineTo(75, 50);  
ctx.stroke();
```





# globalCompositeOperation

- ◆ source-over(默认)



- ◆ destination-out





# LeanMessage

- ◆ 核心概念
  - ◆ ClientID
  - ◆ 对话 (Conversation)
    - ◆ 普通对话。单聊、群聊
    - ◆ 暂态对话。聊天室
    - ◆ 系统对话。公众号



# Node 7.6 async/await

## Promise

```
realtime.createIMClient('Canvas').then(function (canvas) {  
    return canvas.createConversation({.....});  
}).then(function (conversation) {  
    return conversation.send(new AV.TextMessage({x: 0.5, y:0.5}));  
}).then(function (message) {  
    console.log('坐标发送成功! ');  
}).catch(console.error);
```



# Node 7.6 async/await

async/await

```
(async () => {  
  try {  
    let canvas = await realtime.createIMClient('Canvas');  
    let conv = await tom.createConversation(...);  
    let message = await conv.send(new AV.TextMessage...);  
    console.log('坐标发送成功! ');  
  } catch (e) {  
    console.error(e);  
  }  
})();
```



# Node 7.6 async/await

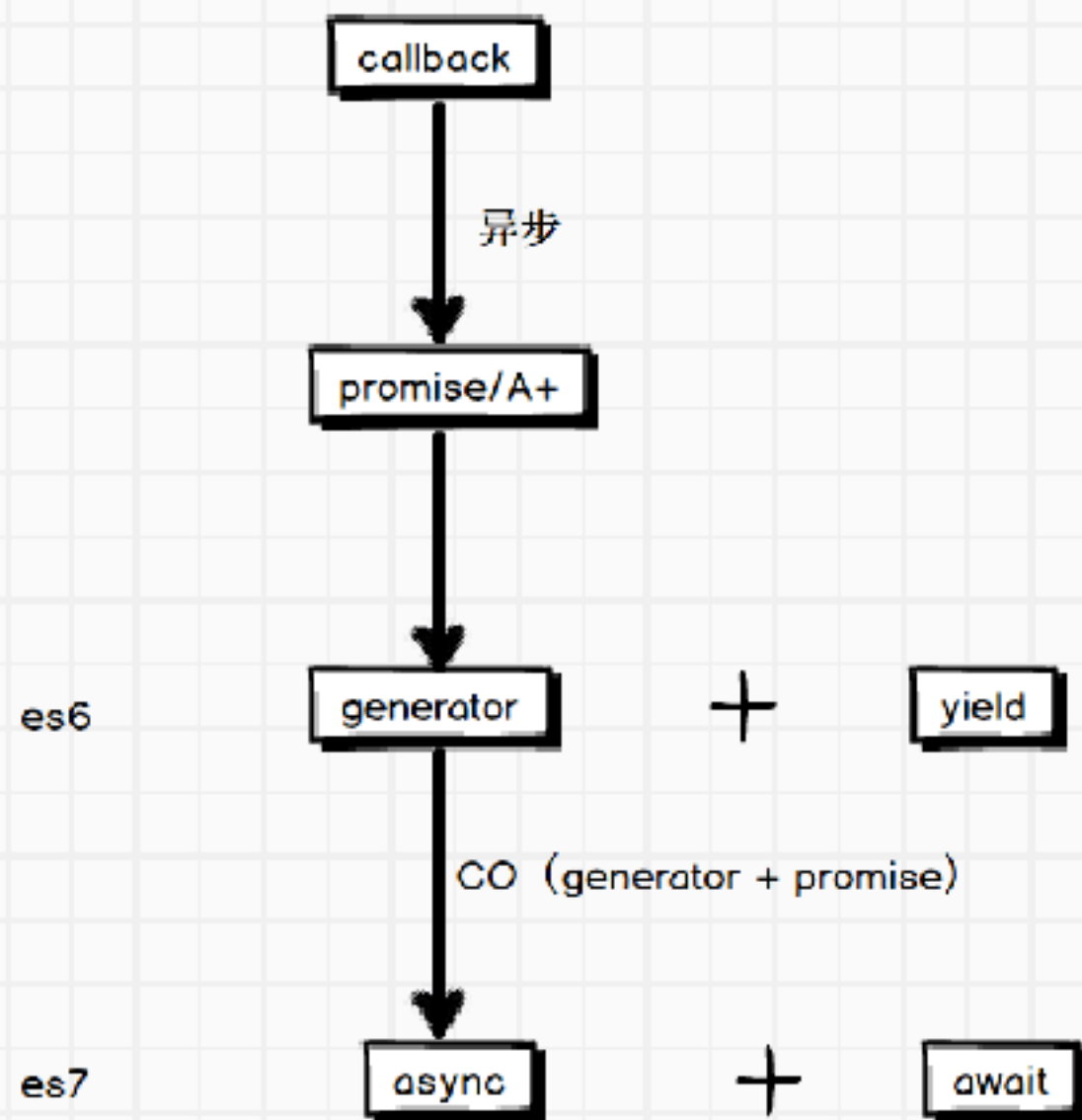
```
getData(a => {  
  getMoreData(a, b => {  
    getMoreData(b, c => {  
      getMoreData(c, d => {  
        getMoreData(d, e => {  
          console.log(e);  
        });  
      });  
    });  
  });  
});
```

understanding async/await in 7 seconds

Best Practice for asynchronous programming



# Node 7.6 async/await





# 实战：你画我猜

心想事成作品（3个字，节日）



万圣节



# 通信协议

- ◆ {"type": "msg", "value": "your guess"}
- ◆ [{"x": "", "y": ""}]
- ◆ {"type": "event",  
"src": "pencil/eraser/rollback/color",  
"color": "仅当src=color有效"}

<https://github.com/jiacai2050/you-paint-i-guess>



# LeanCloud

为开发加速

## Thank You

Q & A