

貪食蛇

吳文杰

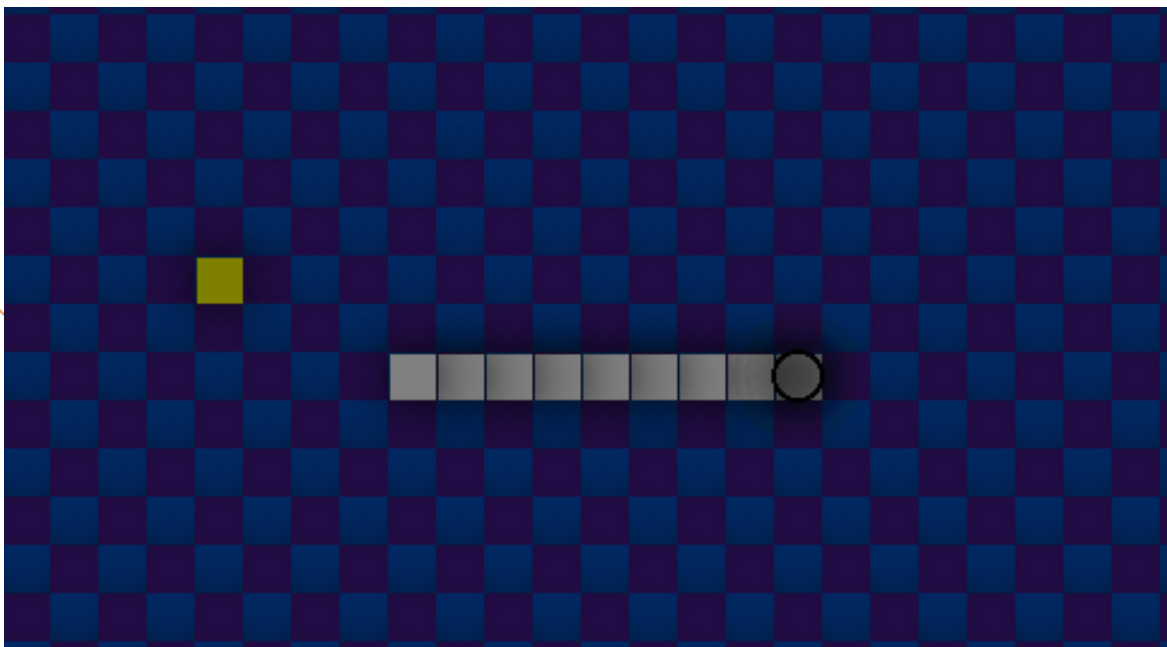




JavaScript

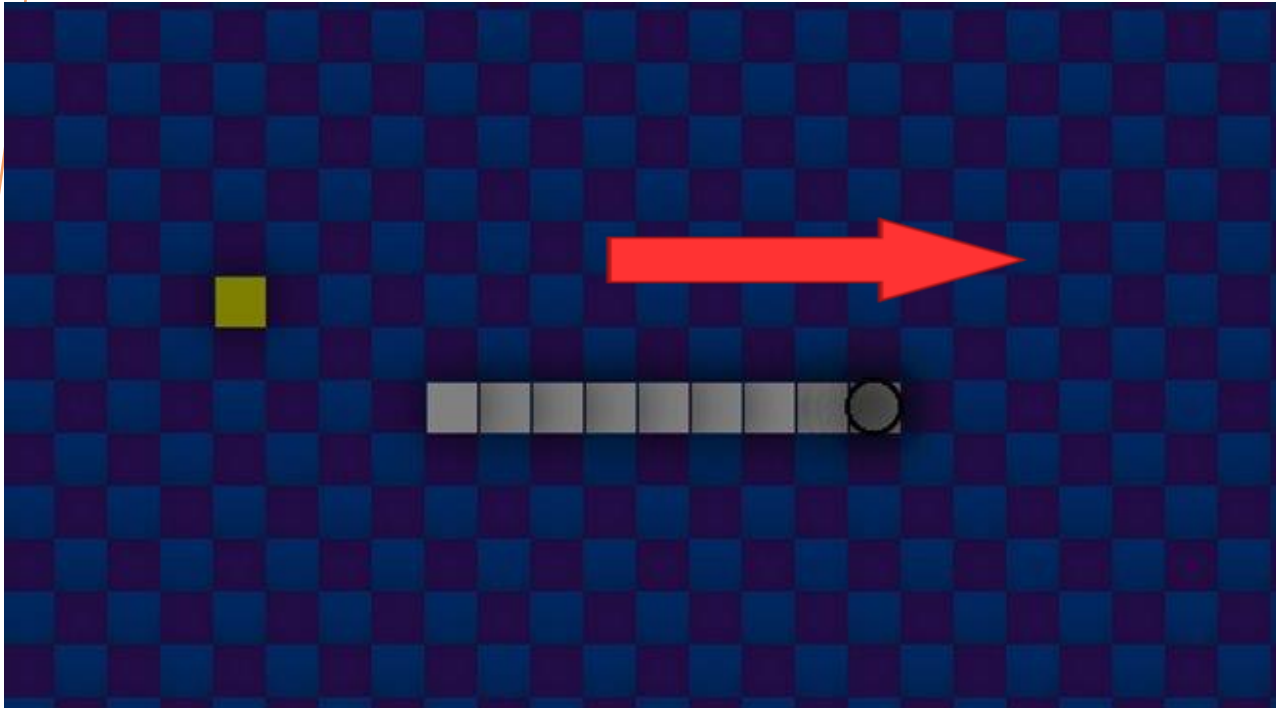


拆解題目



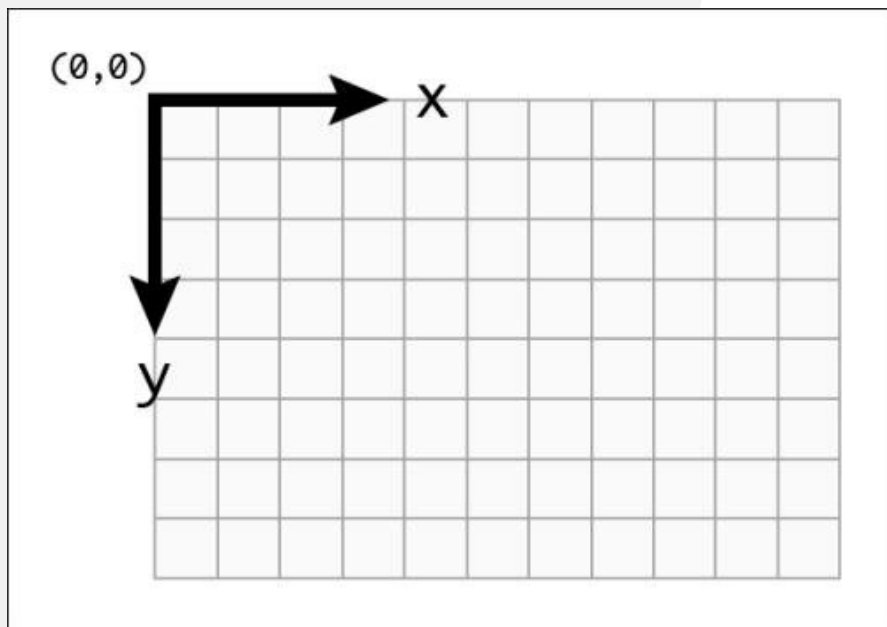
- 遊戲畫面
 - 蛇與得分物品
 - 場地範圍
- 控制
 - 方向鍵

前進行為的拆解



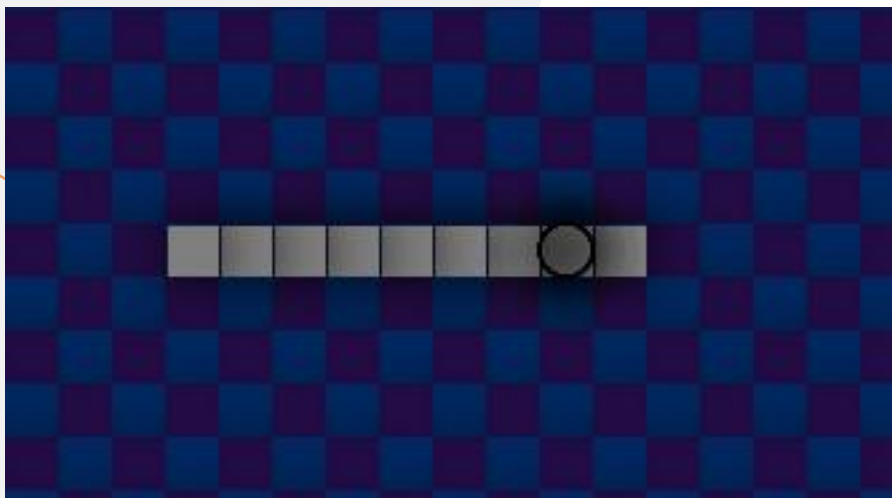
1. 頭部變長：將頭座標加向量得到新座標
unshift();
2. 尾部縮短：將尾部的座標pop();

```
snake = {  
  body: [{ x: 20, y: 12 }],  
  size: 10,  
  direct: { x: 1, y: 0 }  
}
```



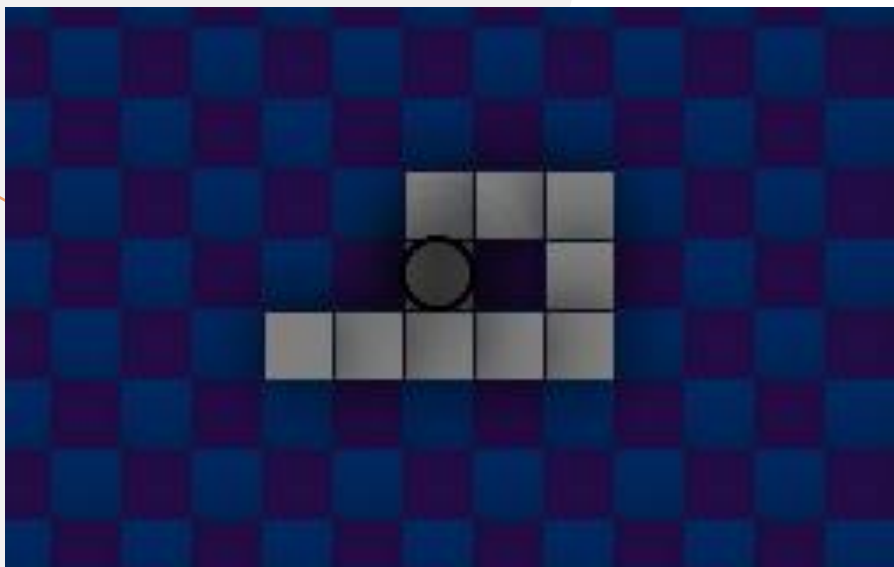
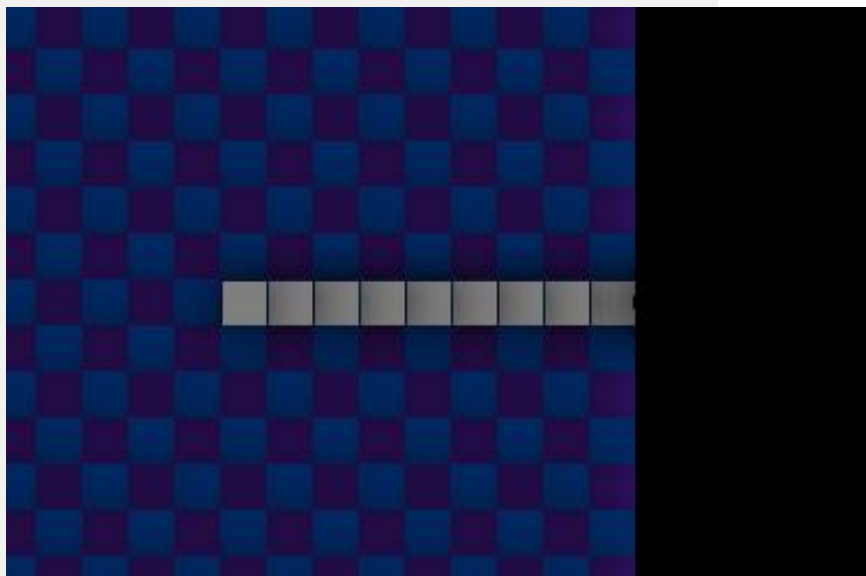
轉向的方法

- 改變向量
- Canvas 的方向
- AddEventListener 監聽的事件



得分與結束

- 得分物品
 1. 隨機生成
 2. 得分
- 結束判定
 1. 撞到牆壁
 2. 撞到自己



CANVAS

```
<!DOCTYPE html>
<html>
<body>

<canvas id="myCanvas" width="200" height="100"
style="border:1px solid #d3d3d3;"></canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.fillStyle = "red";
ctx.fillRect(10,10,150,80);
</script>

</body>
</html>
```



```
for (var i = 0; i < snake.body.length; i++) {

    ctx.fillStyle = "white";
    ctx.fillRect(
        snake.body[i].x * blocksize + 1,
        snake.body[i].y * blocksize + 1,
        blocksize - 1,
        blocksize - 1
    )
}
```

速度改變

```
function scoreup() {  
    snake.size++;  
    score++;  
    speedch = 1 * score;  
    clearInterval(gameInterval);  
    gameInterval = setInterval(game, 100 / speedch);  
    putscore();  
}
```


排行榜

- 跳出判定
- 分數比較

```
var players = [
  {
    name: "Korone",
    score: 20
  },

```

```
var rkname = prompt("請輸入名稱 : ");
for (i = 0; i < 5; i++) {
    if (players[i].score < score) {
        for (j = 4; j > i; j--) {
            players[j].score = players[j - 1].score;
            players[j].name = players[j - 1].name;
        }
        players[i].score = score;
        players[i].name = rkname;
        break;
    }
}
```

謝謝大家的聆聽