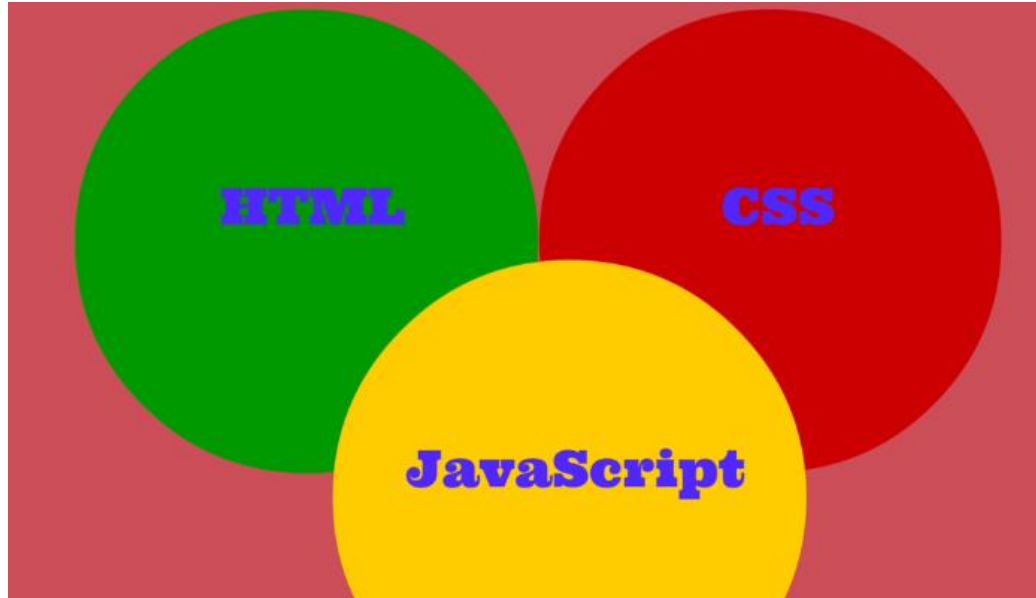


Interactie JavaScript en CSS

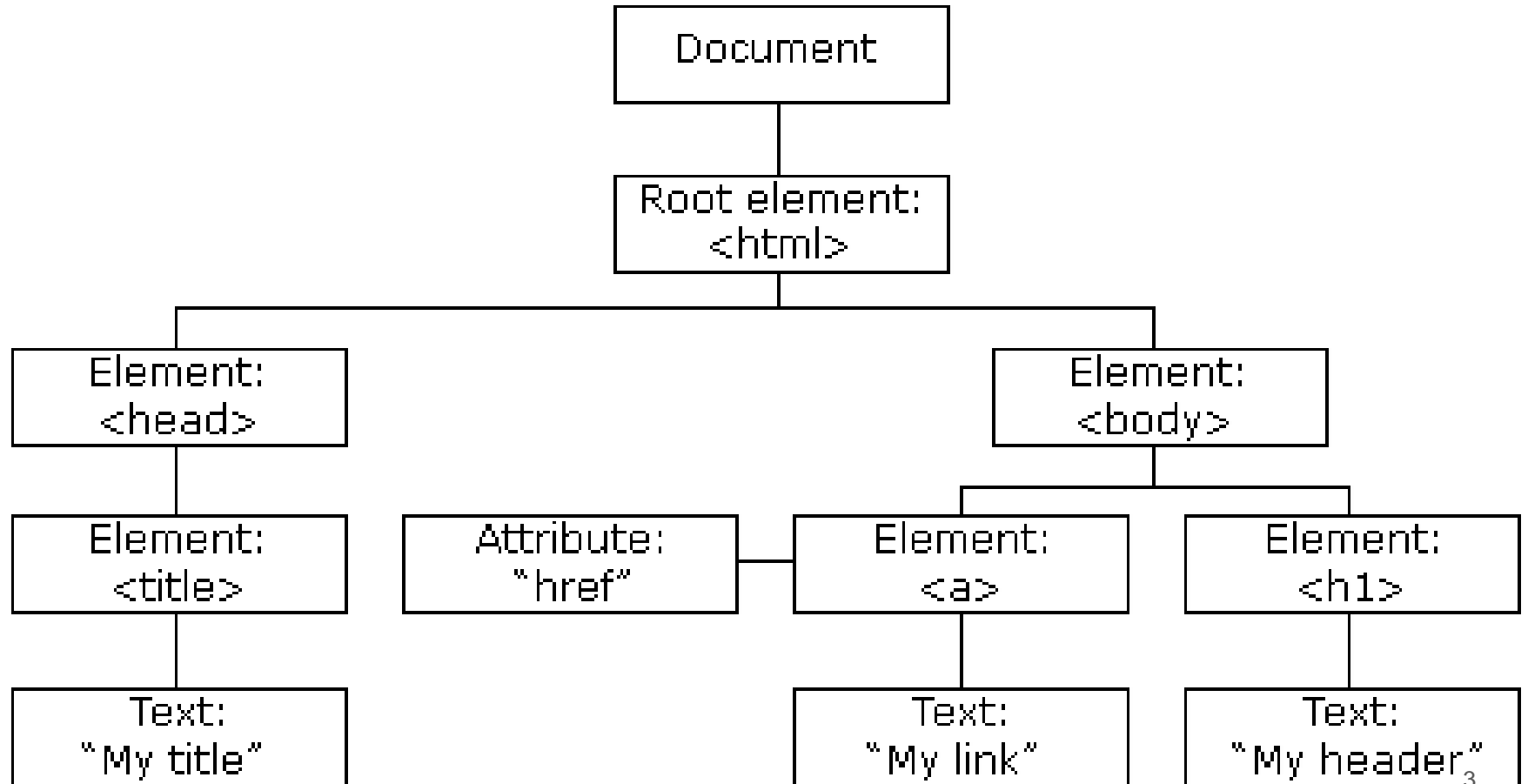
Opdracht Static Grid

HTML DOM

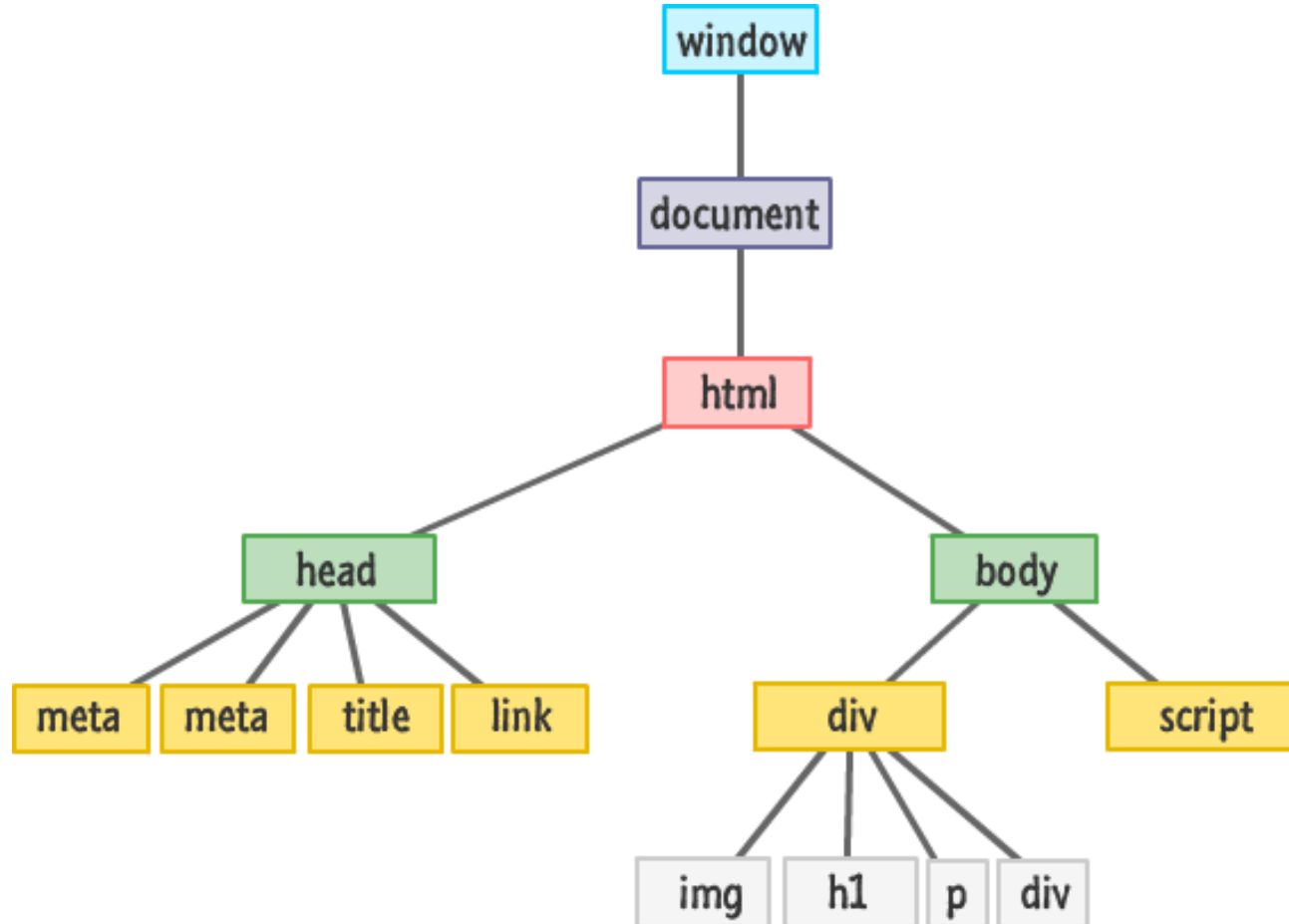
(Document Object Model)



HTML DOM (vereenvoudigd)



HTML DOM (vereenvoudigd)



Document Object en Javascript

Als een HTML document wordt geladen in een web browser, dan wordt het een document object.

Document Object voorziet properties en methods toegankelijk voor Java Script.

Voorbeeld: `document.addEventListener()`

CSS

```
BODY {  
  color:black;  
  font: serif;  
}  
  
P { ... }  
EM { ... }
```

JavaScript

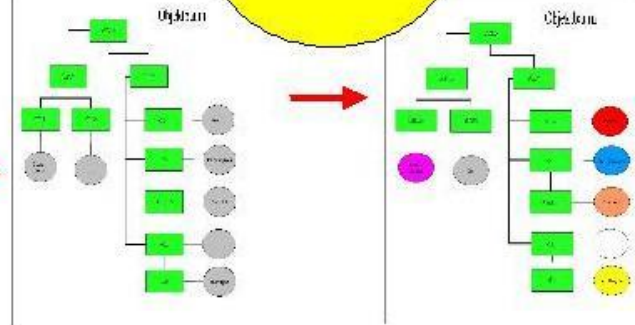
```
image.src=url;  
alert(»Y/N«);  
  
if () open(url);  
  
onClick=«fn()»
```

HTML

```
<HTML>  
<BODY>  
  
<P>...</P>  
  
</BODY>  
</HTML>
```

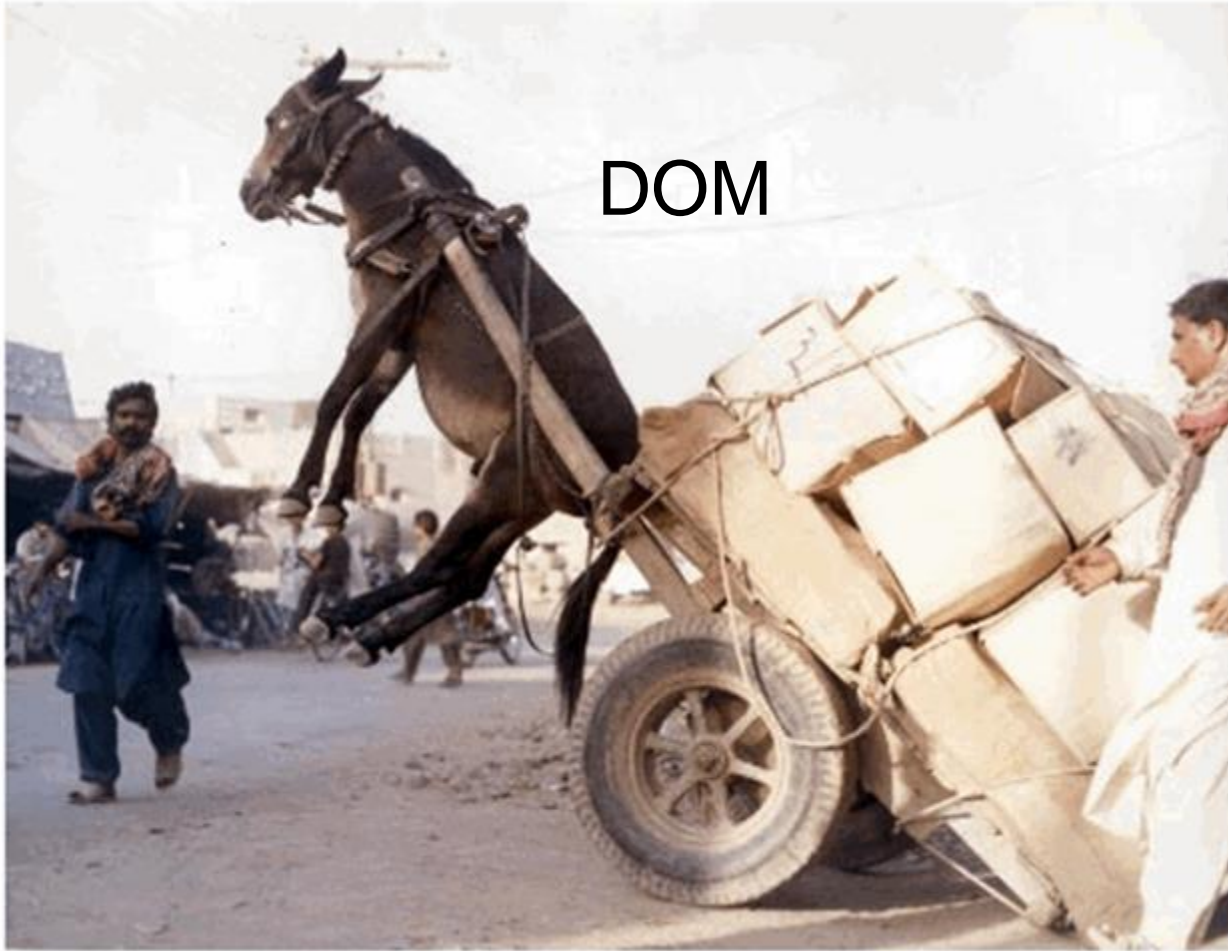
DOM

Engine



website

DOM



JavaScript => Style Object

- ✓ 1. Get a vague overview of the DOM
- ✓ 2. Learn to find elements
- ✓ 3. Modify elements
- 4. ???
- 5. Profit!!!

You are here!



I have no idea why
there is a pizza here.

JavaScript => Style Object

JavaScript heeft toegang tot Style Properties van een bestaand element,

voorbeeld

```
document.getElementById("myH1").style.color =  
"red";
```



Id vooraf declareren in HTML

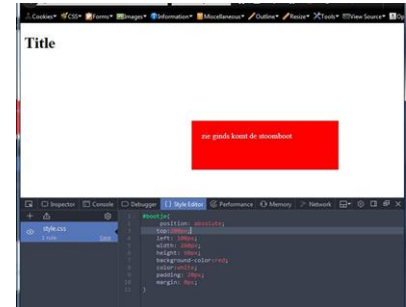
Style Object Properties

Doen: Bestudeer Overzicht Style Object Properties

https://www.w3schools.com/jsref/dom_obj_style.asp

```
container.style.left = xPos + "px";
```

Demo positioneer een rechthoek op de coördinaat $x = 350$ px, $y = 200$ px



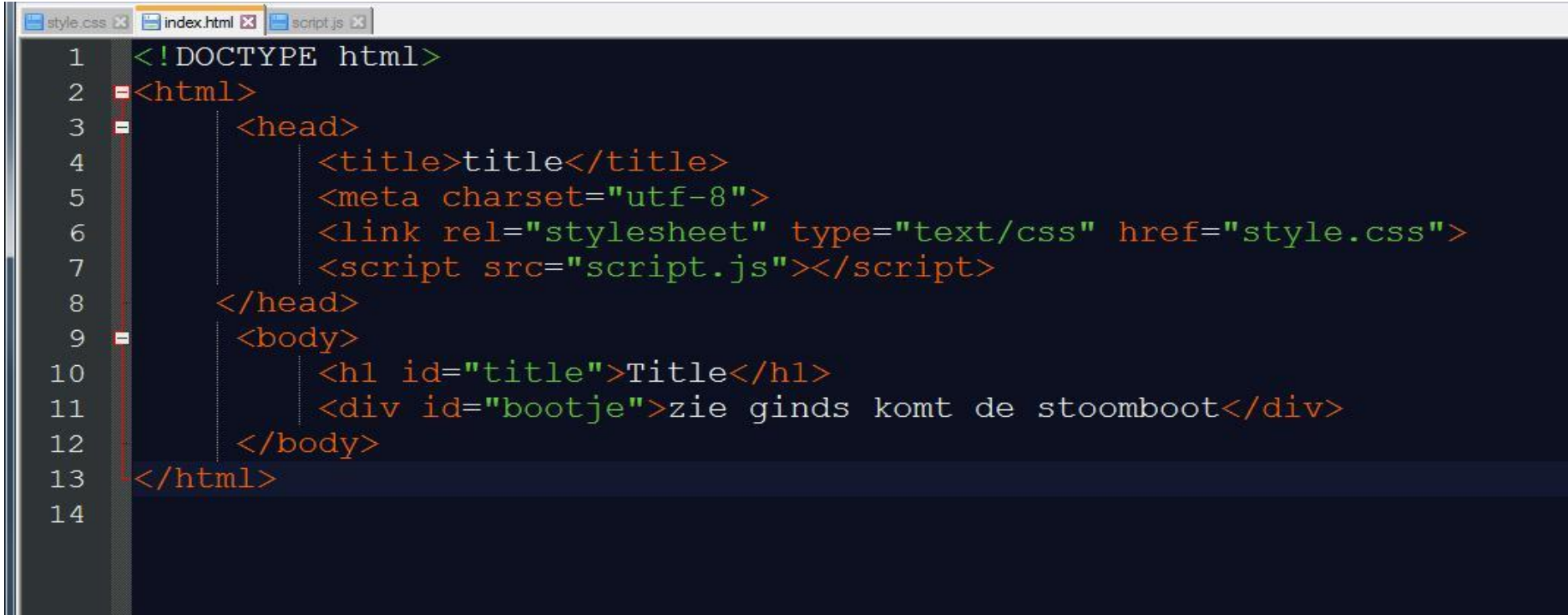
Demo positioneer een rechthoek op de coördinaat $x = 350$, $y = 200$

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>title</title>
5     <meta charset="utf-8">
6     <link rel="stylesheet" type="text/css" href="style.css">
7     <script src="script.js"></script>
8   </head>
9   <body>
10    <h1 id="title">Title</h1>
11    <div id="bootje">zie ginds komt
12  </div>
13 </body>
14 </html>
```

```
1 window.addEventListener("load",function () {
2   var bootje = document.getElementById('bootje');
3   var positionX = 350;
4
5   function float () {
6     bootje.style.left = positionX + "px";
7   }
8   setInterval(float,1);
9 })
10
```

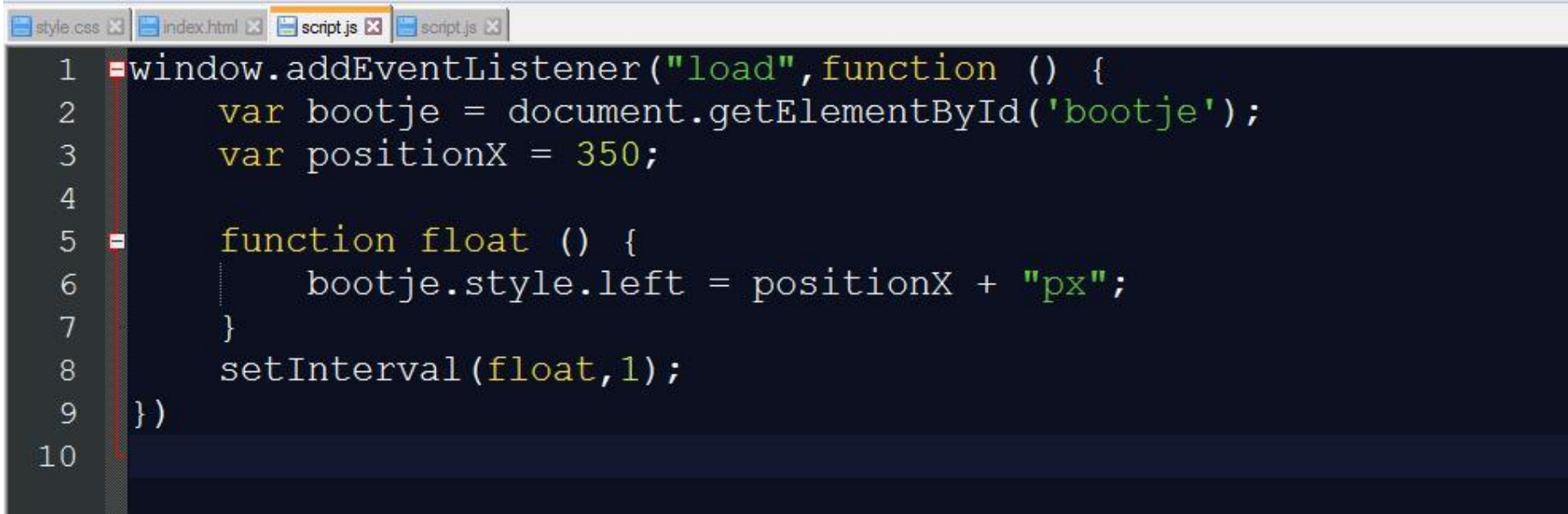
```
1 #bootje{
2   position: absolute;
3   top:200px;
4   left: 100px;
5   width: 260px;
6   height: 60px;
7   background-color:red;
8   color:white;
9   padding: 20px;
10  margin: 0px;
11 }
```

Demo HTML



```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>title</title>
5     <meta charset="utf-8">
6     <link rel="stylesheet" type="text/css" href="style.css">
7     <script src="script.js"></script>
8   </head>
9   <body>
10    <h1 id="title">Title</h1>
11    <div id="bootje">zie ginds komt de stoomboot</div>
12  </body>
13 </html>
14
```

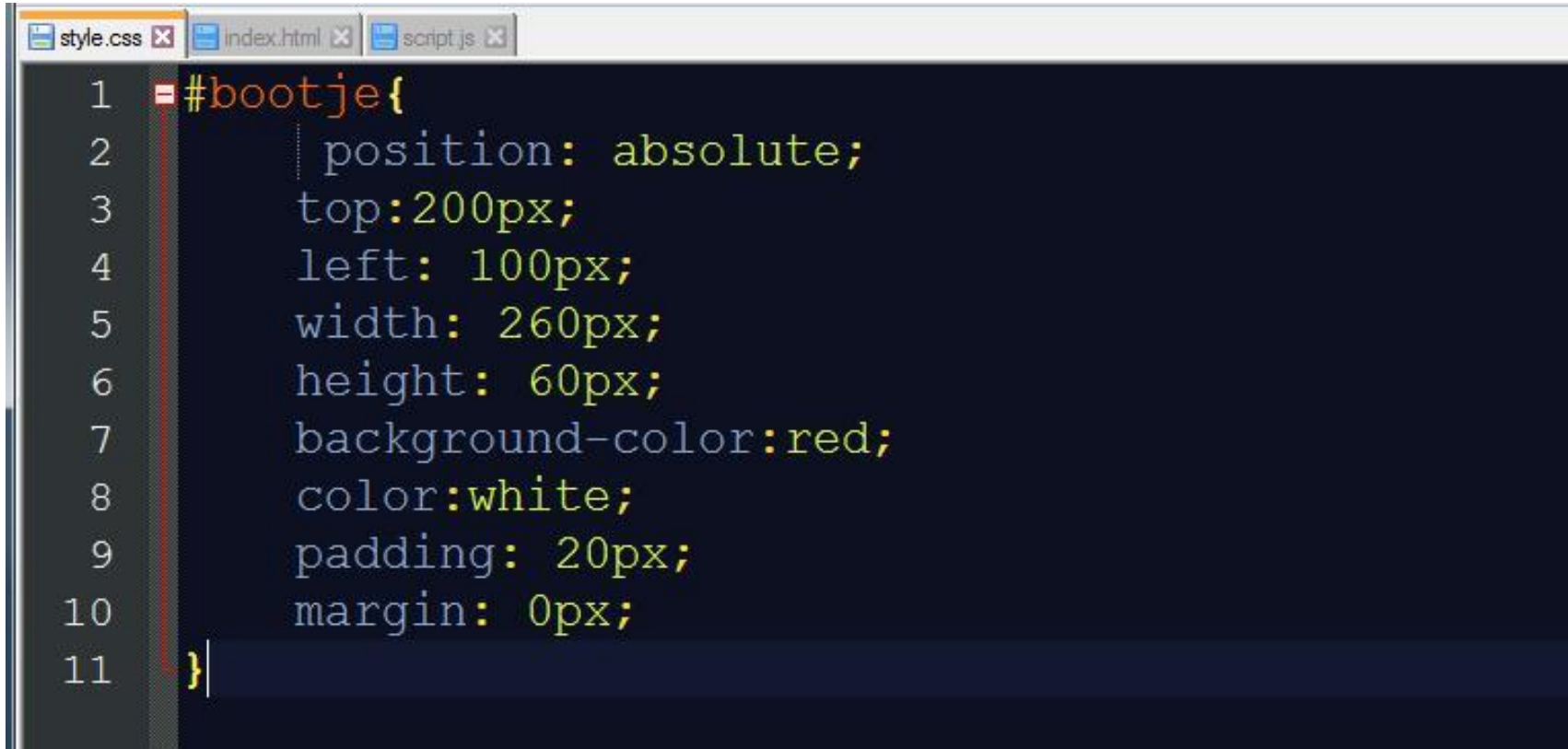
Demo JS



The image shows a web browser window with four tabs: 'style.css', 'index.html', 'script.js', and 'script.js'. The 'script.js' tab is active, displaying the following JavaScript code in a dark-themed editor with line numbers 1 through 10 on the left. The code implements a floating element by adding a 'load' event listener that sets the initial position of an element with ID 'bootje' to 350px. It then defines a 'float' function that updates the 'left' style of 'bootje' by 1px and sets an interval to call this function every 1ms.

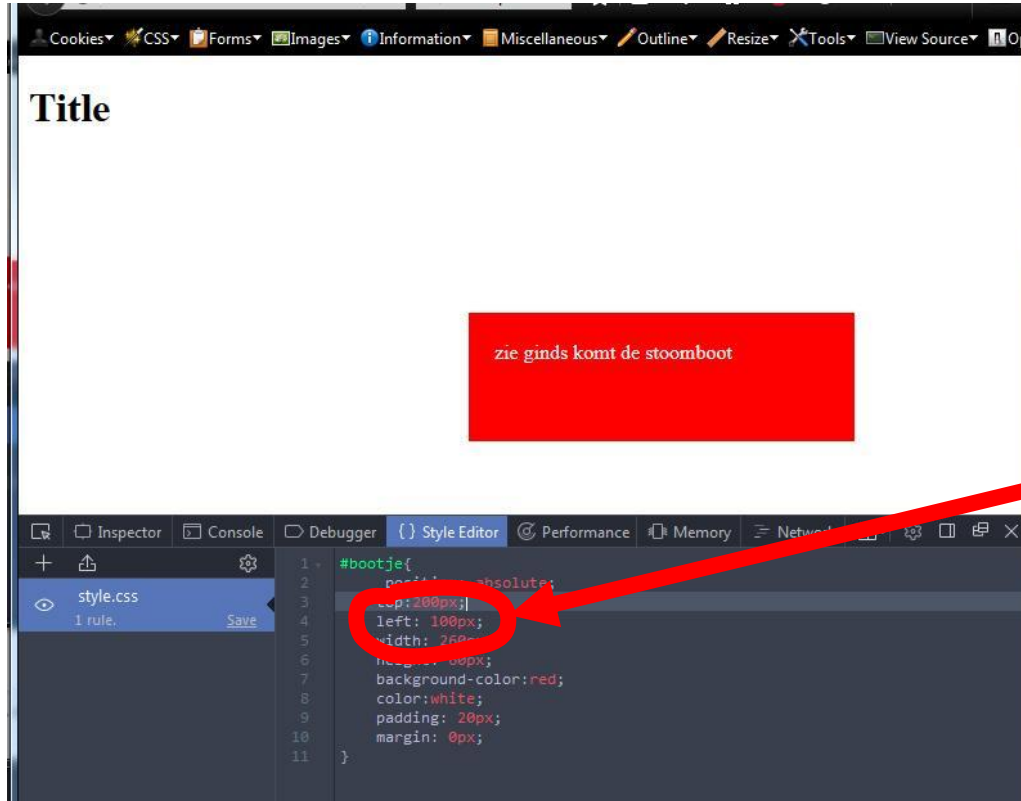
```
1 window.addEventListener("load",function () {  
2     var bootje = document.getElementById('bootje');  
3     var positionX = 350;  
4  
5     function float () {  
6         bootje.style.left = positionX + "px";  
7     }  
8     setInterval(float,1);  
9 })  
10
```

Demo CSS

A screenshot of a code editor with three tabs: 'style.css', 'index.html', and 'script.js'. The 'style.css' tab is active, showing a CSS rule for the '#bootje' selector. The code is as follows:

```
1 #bootje{  
2     position: absolute;  
3     top: 200px;  
4     left: 100px;  
5     width: 260px;  
6     height: 60px;  
7     background-color: red;  
8     color: white;  
9     padding: 20px;  
10    margin: 0px;  
11 }
```

HTML + CSS + JavaScript = resultaat



“overschreven” door
Java Script

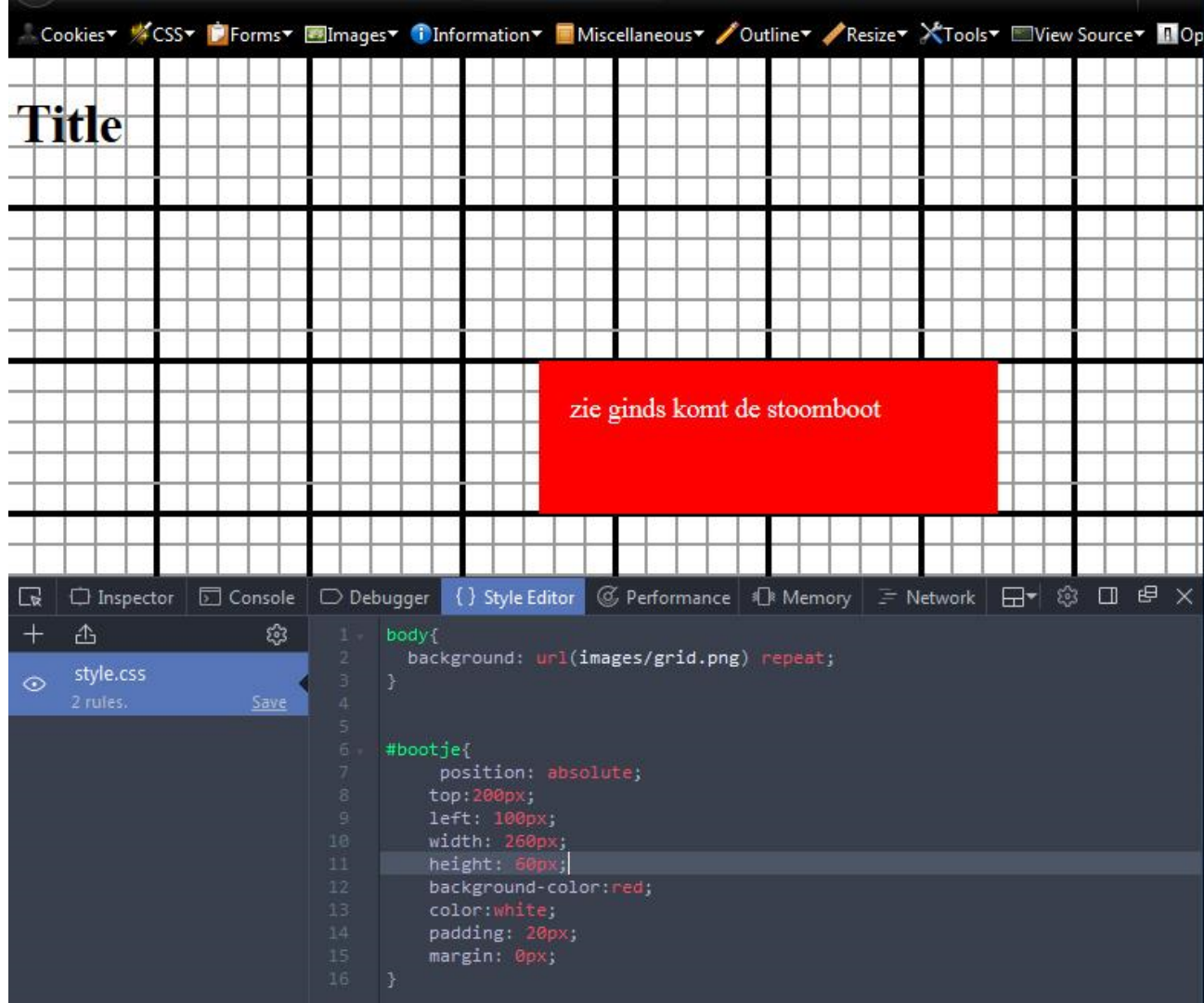
Plaats Static Grid



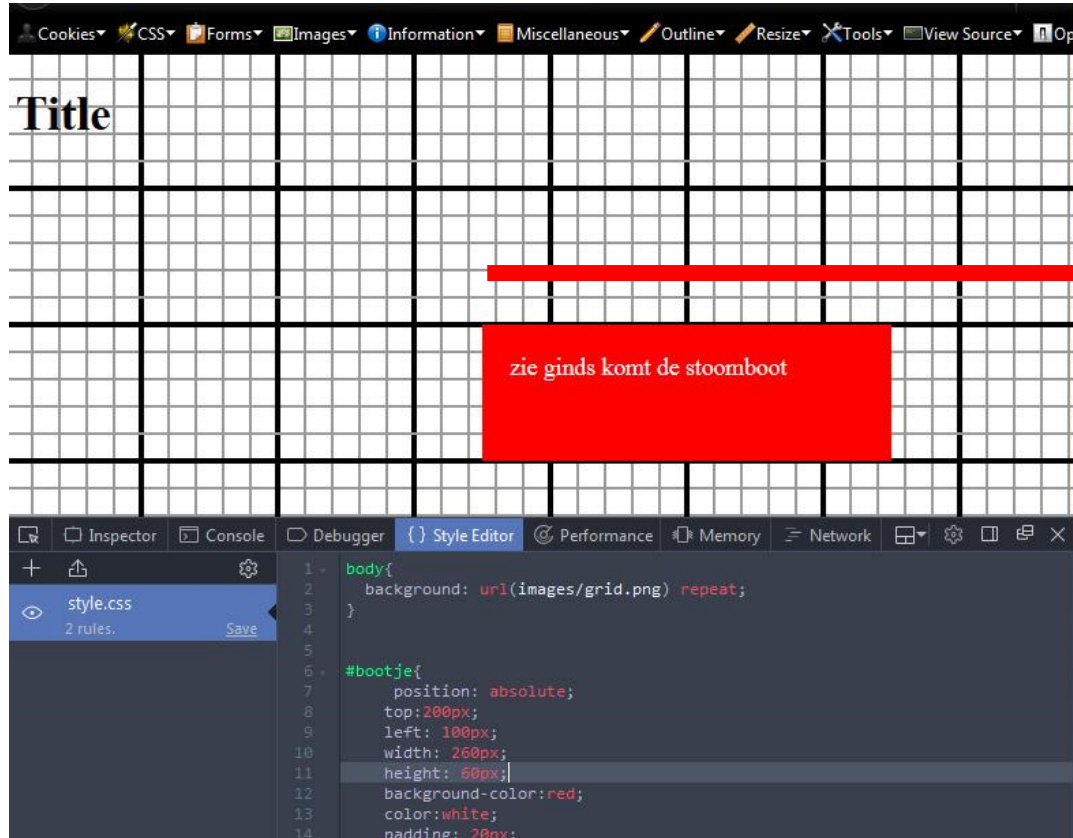
```
body{  
  background: url(images/grid.png) repeat;  
}
```

Check de
Coördinaten
van de
Rechthoek

X = 350 px
Y = 200 px



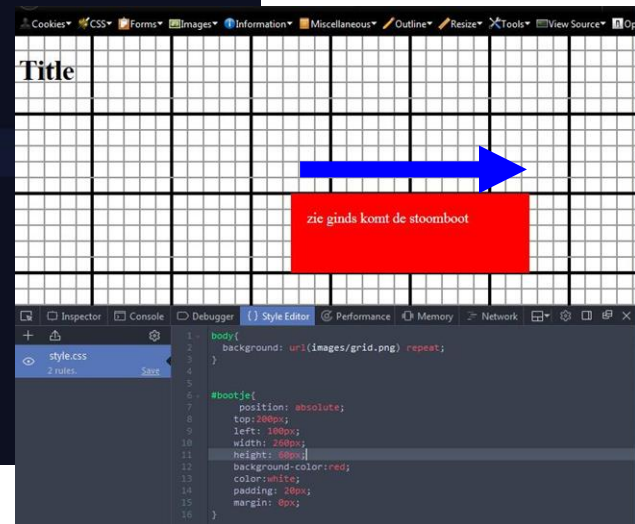
Geef rechthoek een horizontale snelheid



`positionX += speed;`

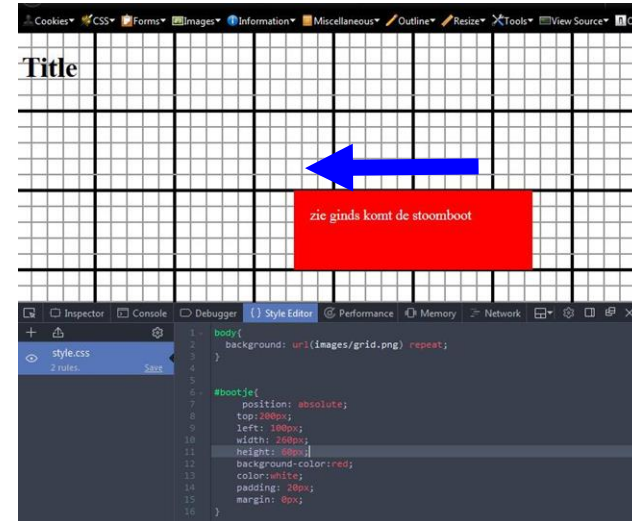
Geef rechthoek een horizontale snelheid

```
1 window.addEventListener("load",function () {
2     var bootje = document.getElementById('bootje');
3     var positionX = 100;
4     var speed = 1;
5
6     function float () {
7         bootje.style.left = positionX + "px";
8         positionX += speed;
9     }
10    setInterval(float,1);
11 })
12
```



Omkeren horizontale snelheid

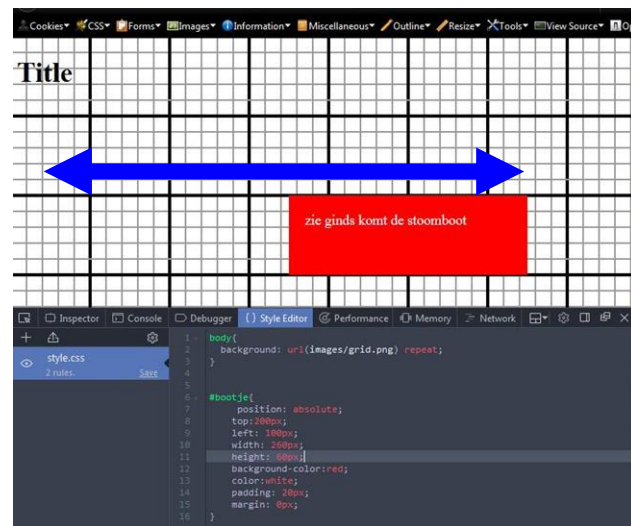
```
if(positionX > 1000 || positionX < 100){  
    speed = -speed;  
}
```



Opdracht:

<http://blanken5.home.xs4all.nl/varen.html>

In de eerste video zie je de opdracht.



Nuttige links

https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model/Introduction