INTRODUCTION TO jQuery

DOM Interaction, simplified.

WHY ARE WE TALKING ABOUT JQUERY?

- Client-side Javascript library.
- Good for DOM selection, event handling, managing element properties.
- jQuery still has a large slot in the industry and is still a better solution to some problems than Angular/React

GLOSSARY OF TERMS

- **Client-side**
  - As opposed to server-side
  - Javascript executed in the browser
- **DOM: Document Object Model**
  - Browser’s representation of HTML
  - All elements in the tree
- **Selectors**

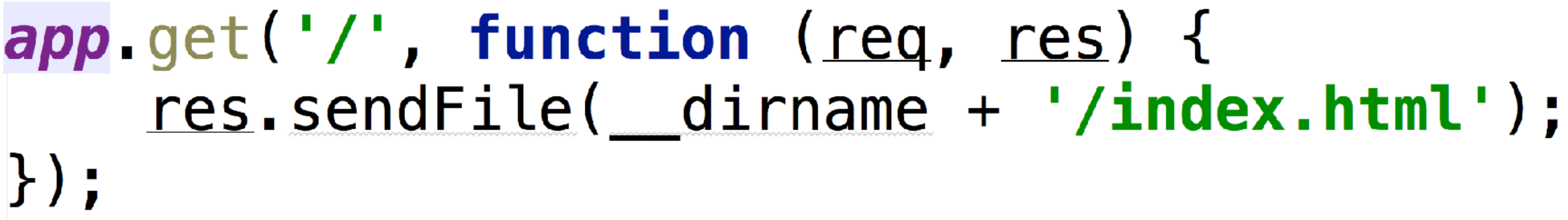
FRONT-END APPLICATIONS

=

USER INTERFACES

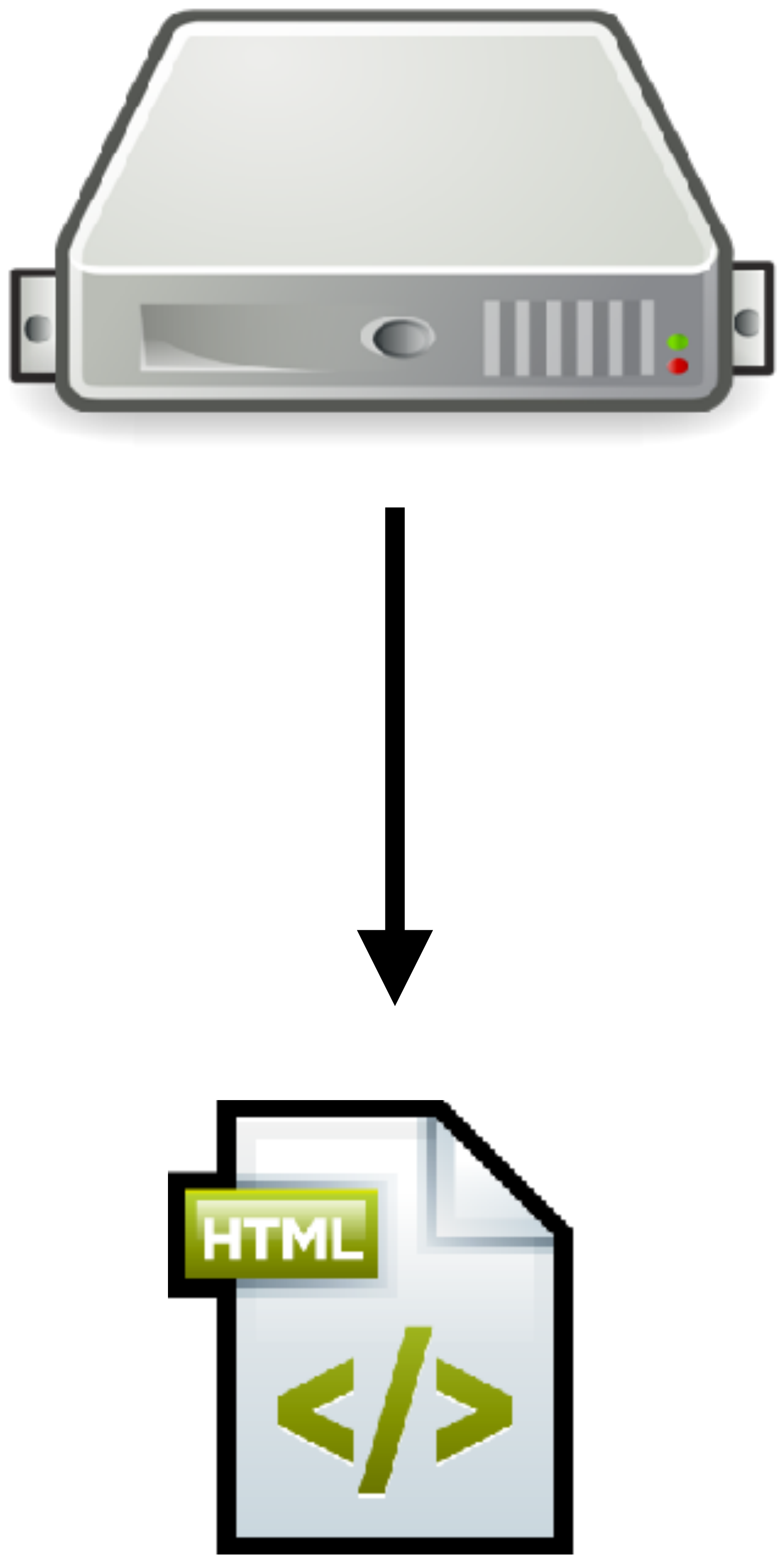
MANIPULATING THE DOM BASED ON EVENTS AND INTERACTIVITY

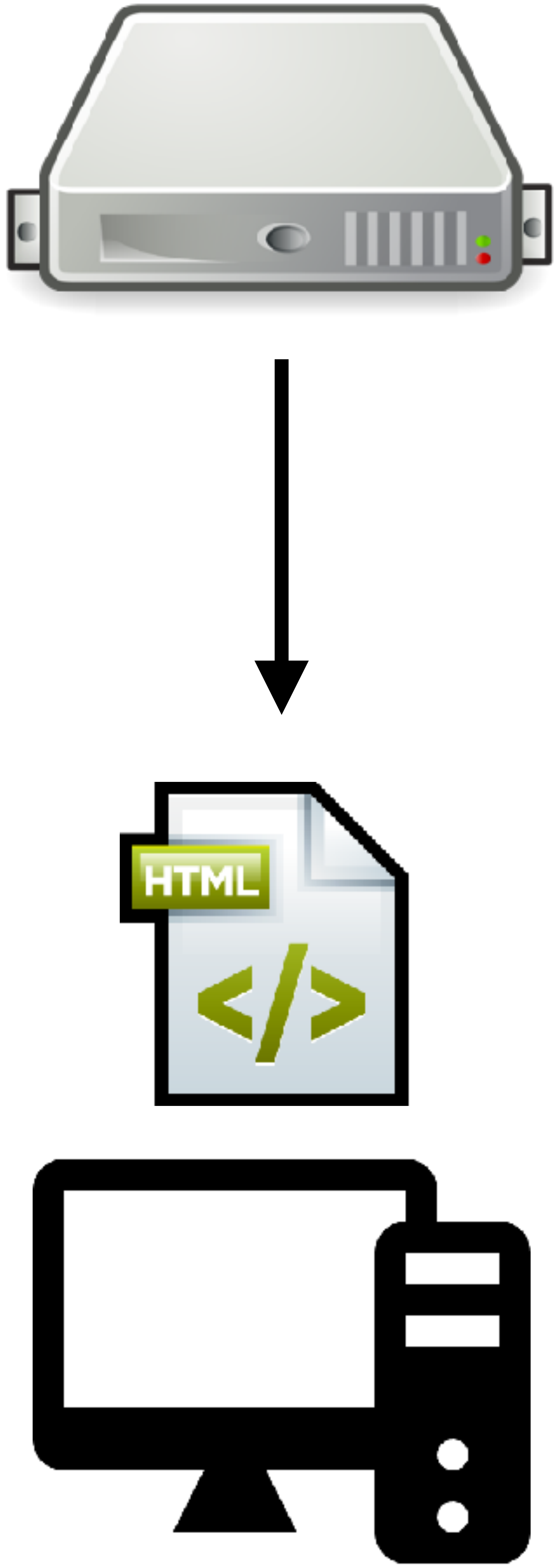
GET /

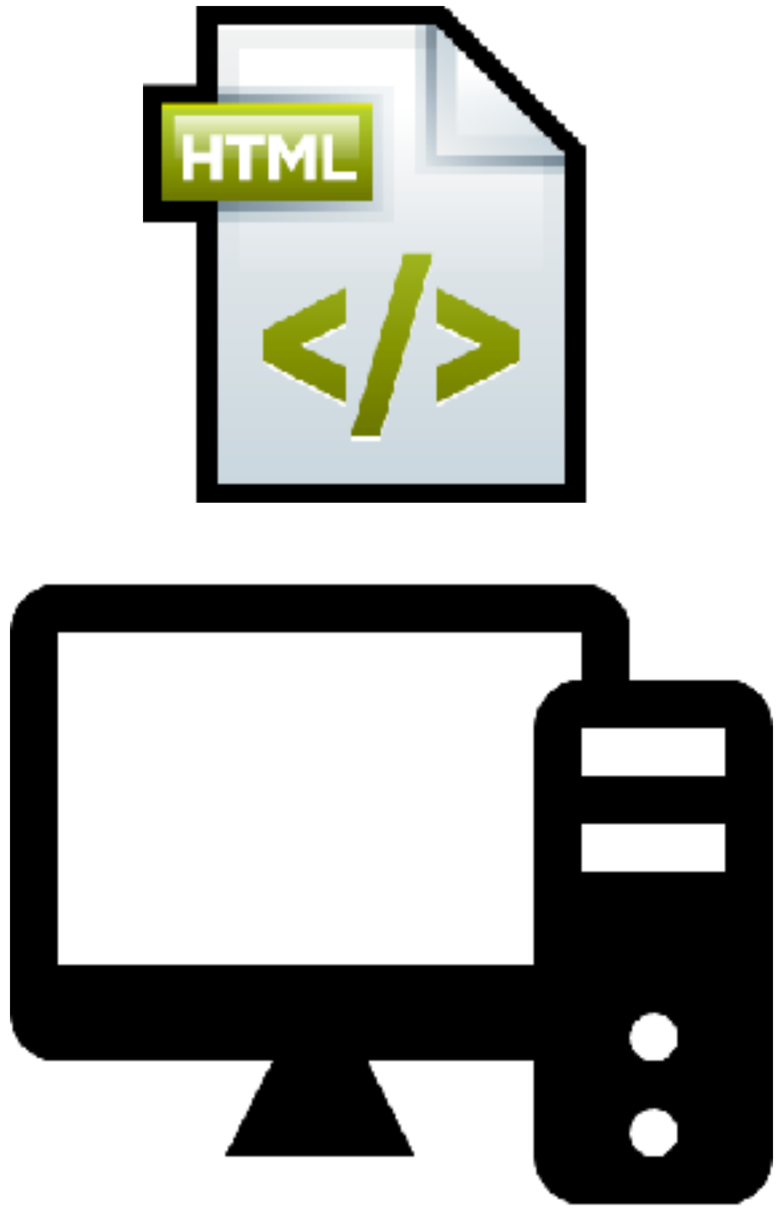


```
app.get('/', function (req, res) {
    res.sendFile(__dirname + '/index.html');
});
```

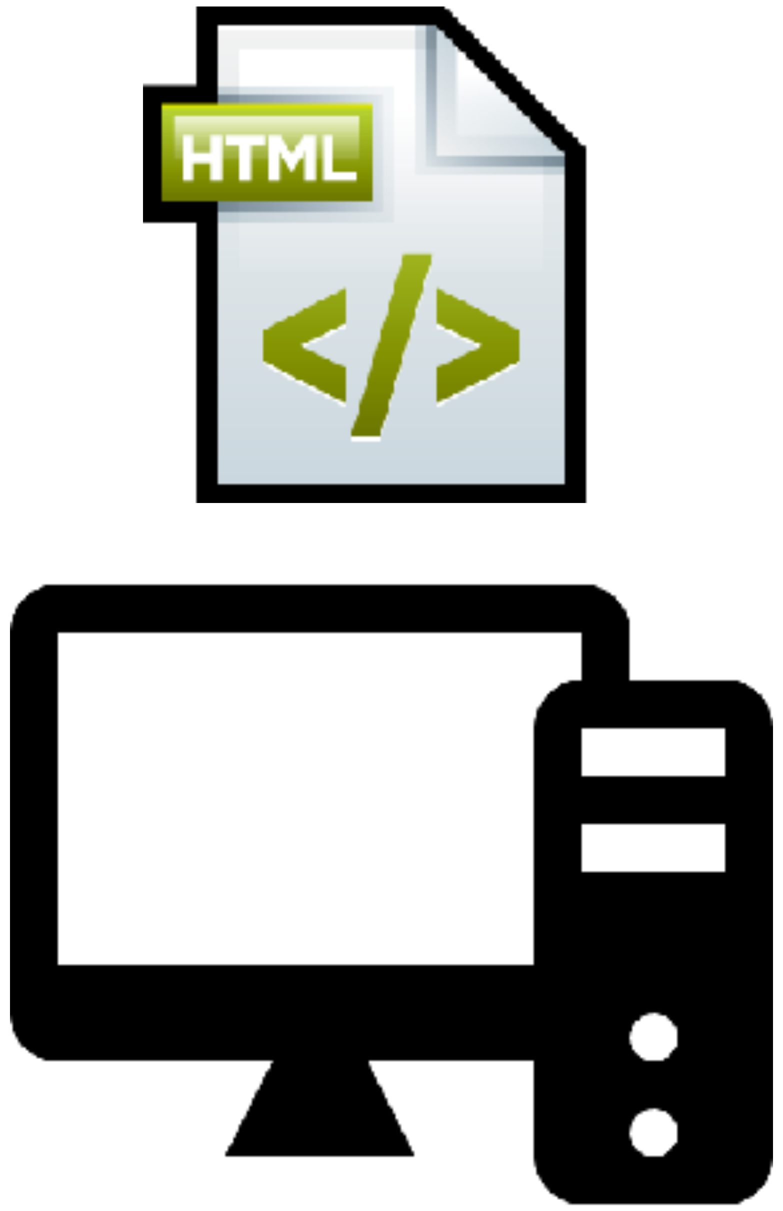
GET /


HTML
</>

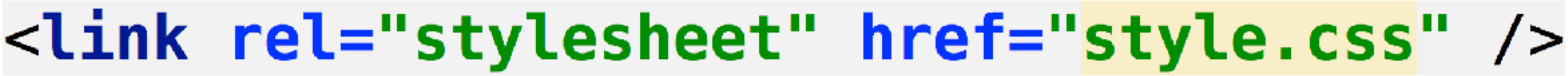

HTML
</>


HTML
</>

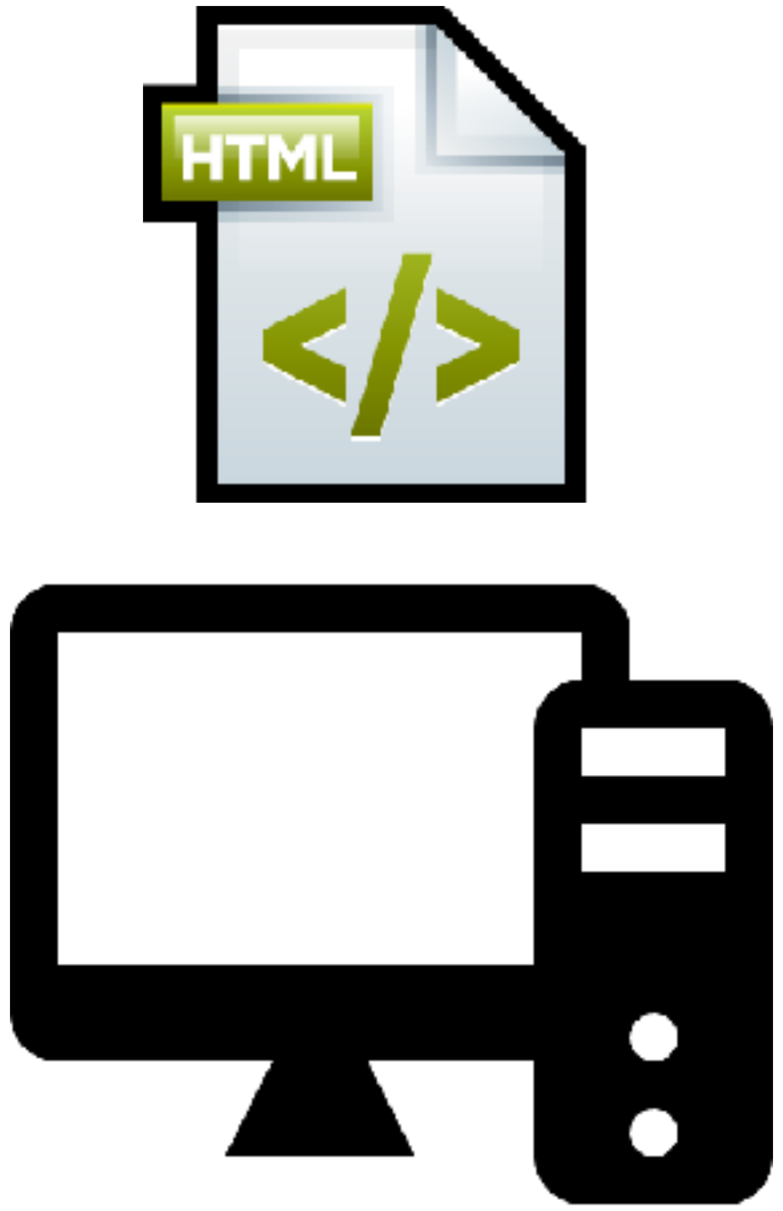
HTML
</>


HTML
</>

HTML
</>

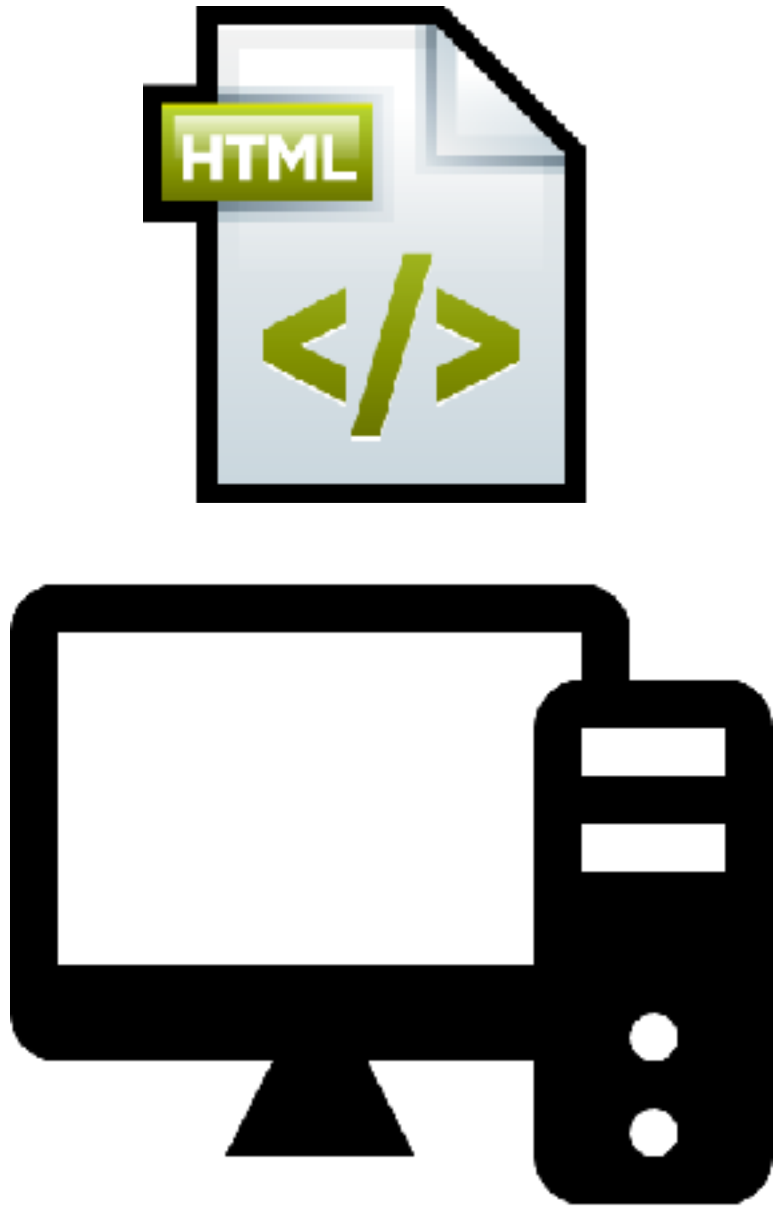


```
<link rel="stylesheet" href="style.css" />
```

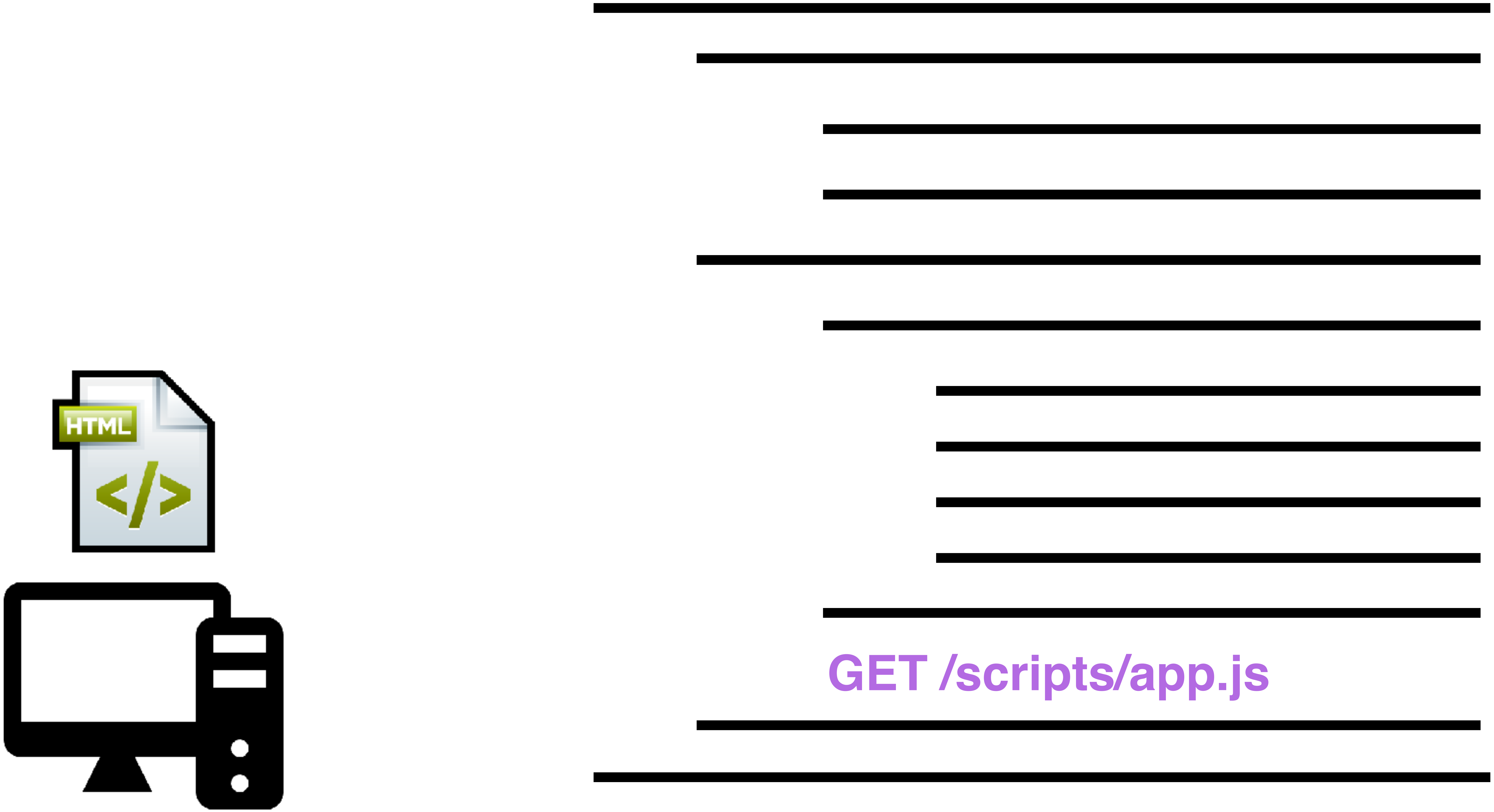

HTML
</>

GET /style.css

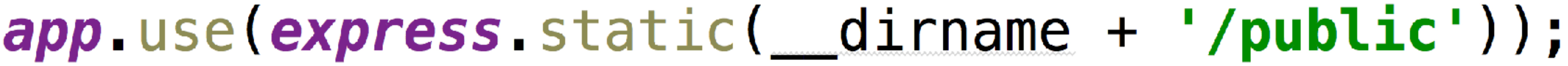
HTML
</>


HTML
</>

```
<script src="scripts/app.js"></script>
```

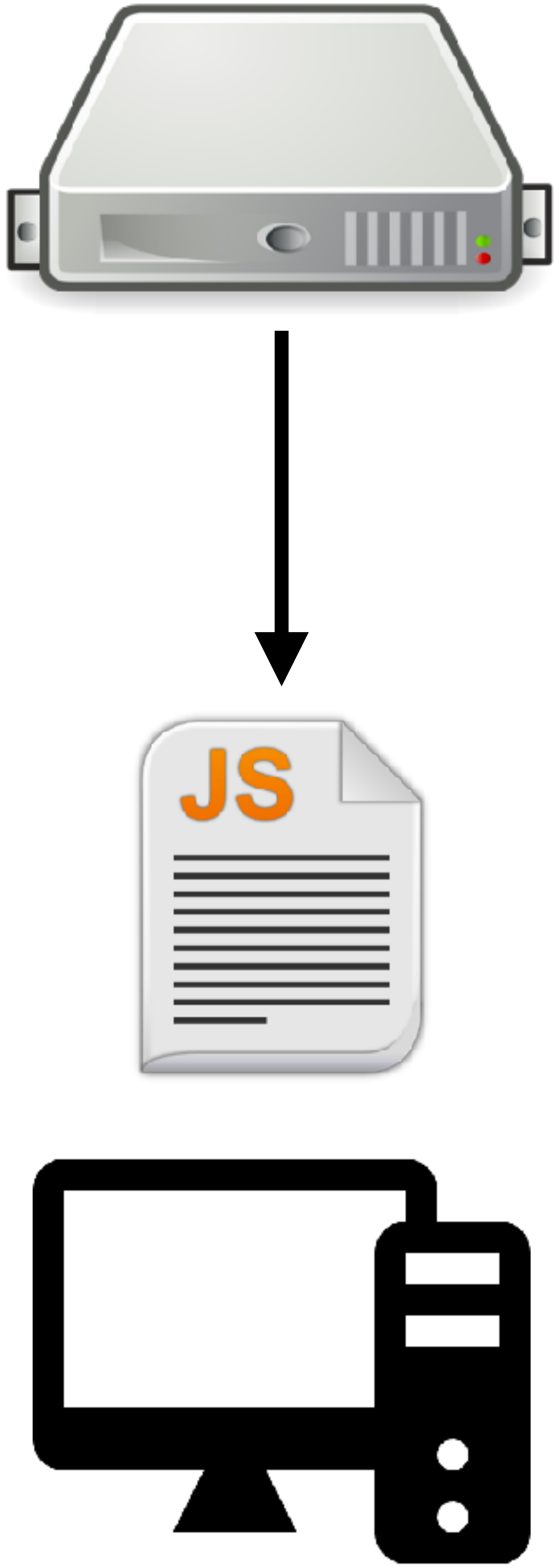


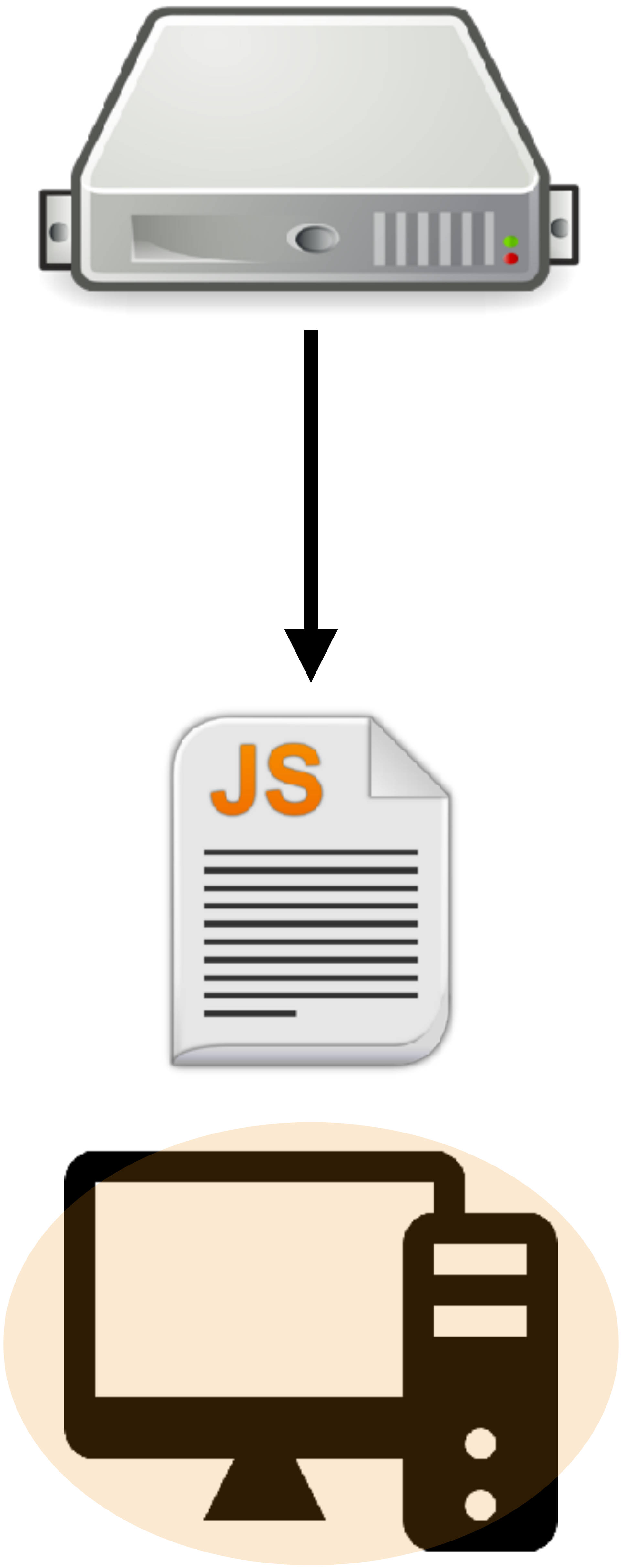
GET /scripts/app.js



```
app.use(express.static(__dirname + '/public'));
```

GET /scripts/app.js


JS


JS

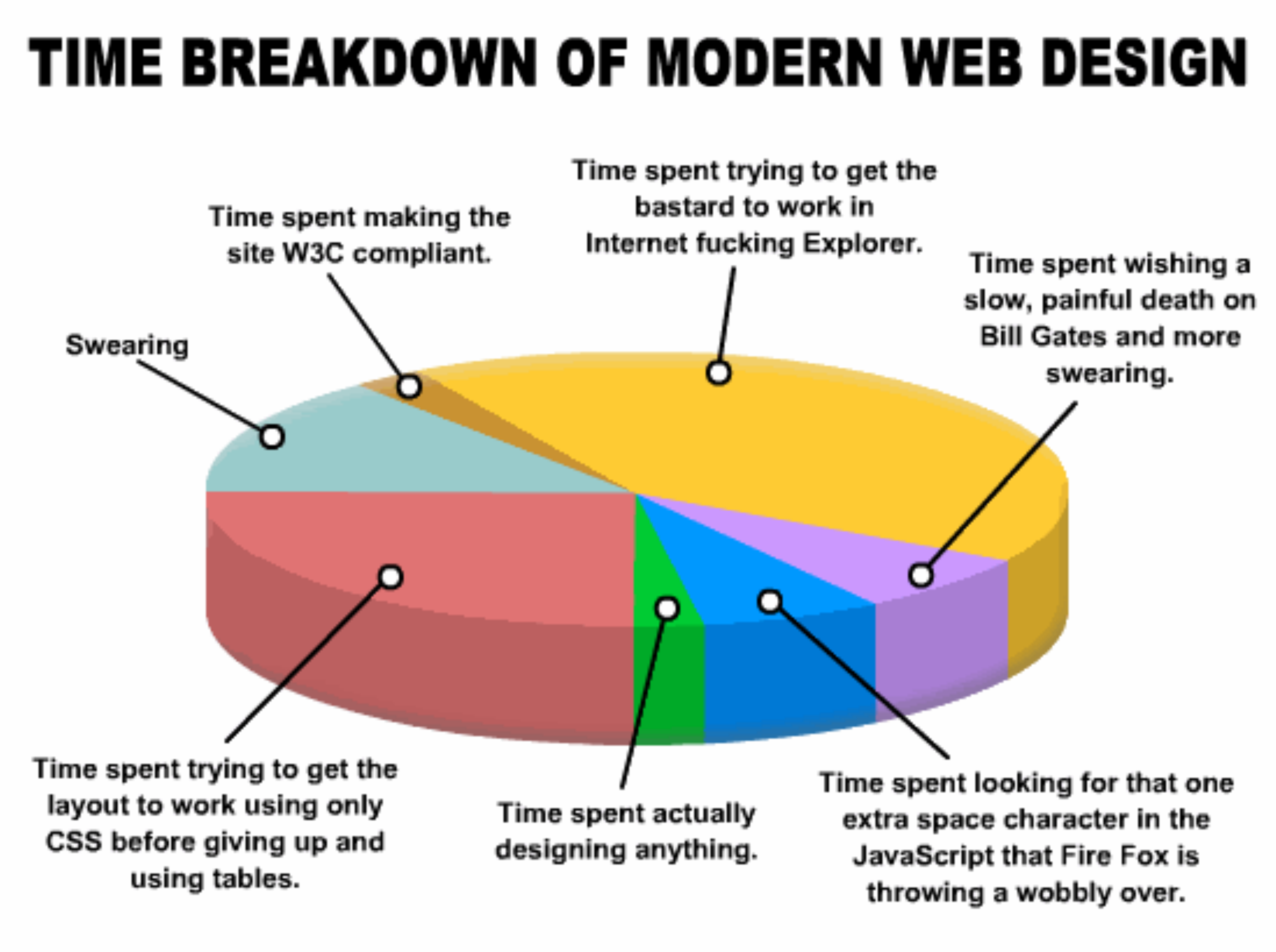
FRONT-END JAVASCRIPT IS A FILE SERVED TO A BROWSER

IT DOES NOT SHARE ANY CODE OR FUNCTIONALITY WITH THE SERVER ITSELF

JS
JS
JS
JS
JS
JS

CROSS-BROWSER CONCERNS

Does what the competitors do, just slightly different.



TIME BREAKDOWN OF MODERN WEB DESIGN

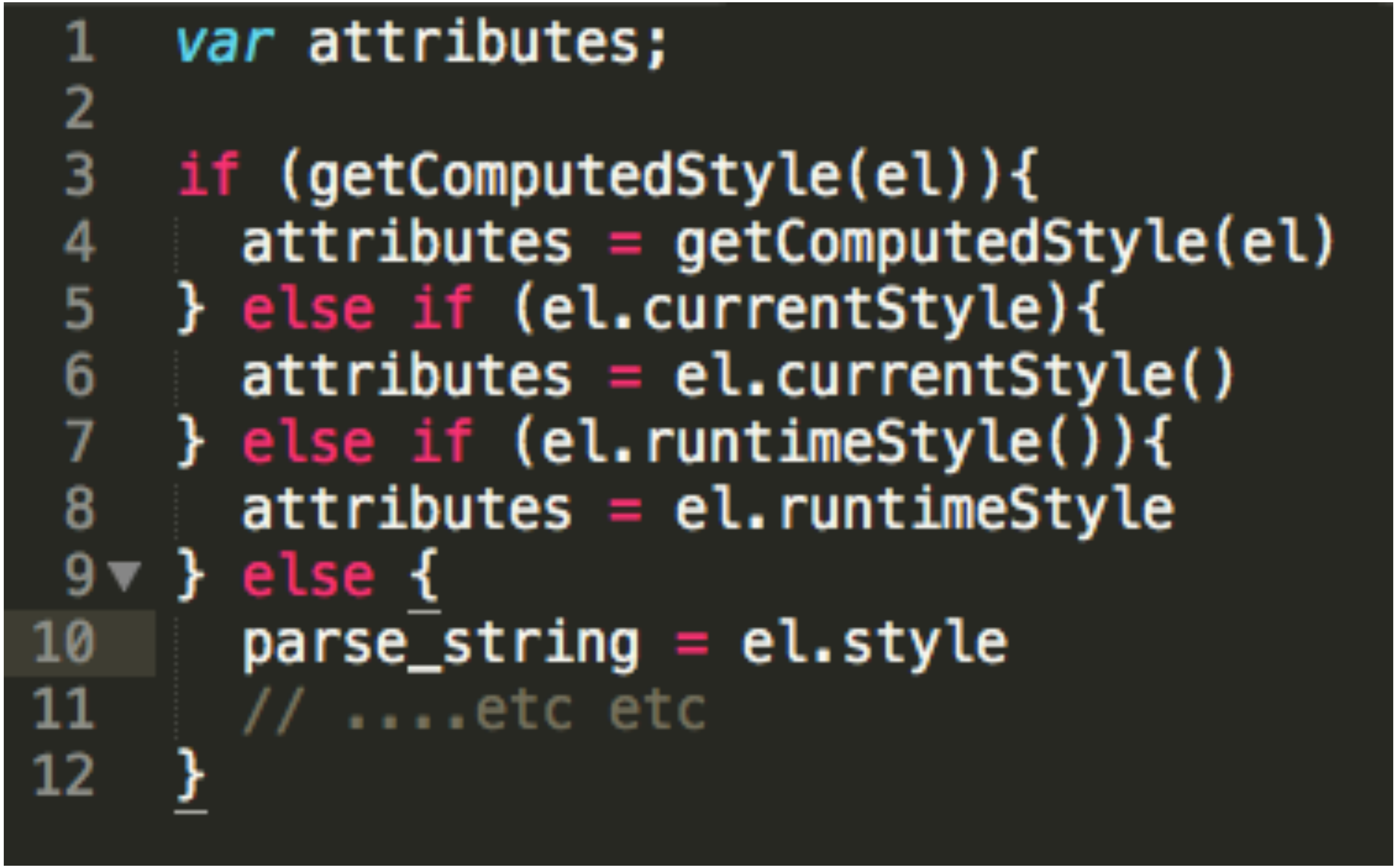
node
JS
TM

JS

JS

USING JAVASCRIPT TO GET ALL THE CSS PROPERTIES OF AN ELEMENT

- **Modern browsers:** getComputedStyle()
- **Some older browsers:** currentStyle()
- **Other browsers:** runtimeStyle()
- **Other browsers:** Get css attributes as a string, parse it yourself

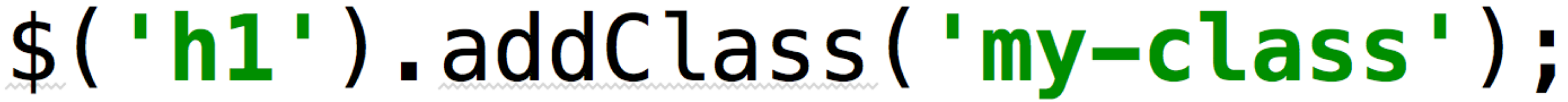


```
var attributes;

if (getComputedStyle(el)){
  attributes = getComputedStyle(el)
} else if (el.currentStyle){
  attributes = el.currentStyle()
} else if (el.runtimeStyle()){
  attributes = el.runtimeStyle
} else {
  parse_string = el.style
  // ....etc etc
}
```

THINGS BROWSERS DO DIFFERENTLY

- Like, everything.
- How elements get selected.
- How to set styles on elements.
- Available APIs.
- Like, everything.

jQuery
write less, do more.



```
$('h1').addClass('my-class');
```

jQuery PROVIDES ABSTRACTION

JQUERY IS A JAVASCRIPT MILESTONE

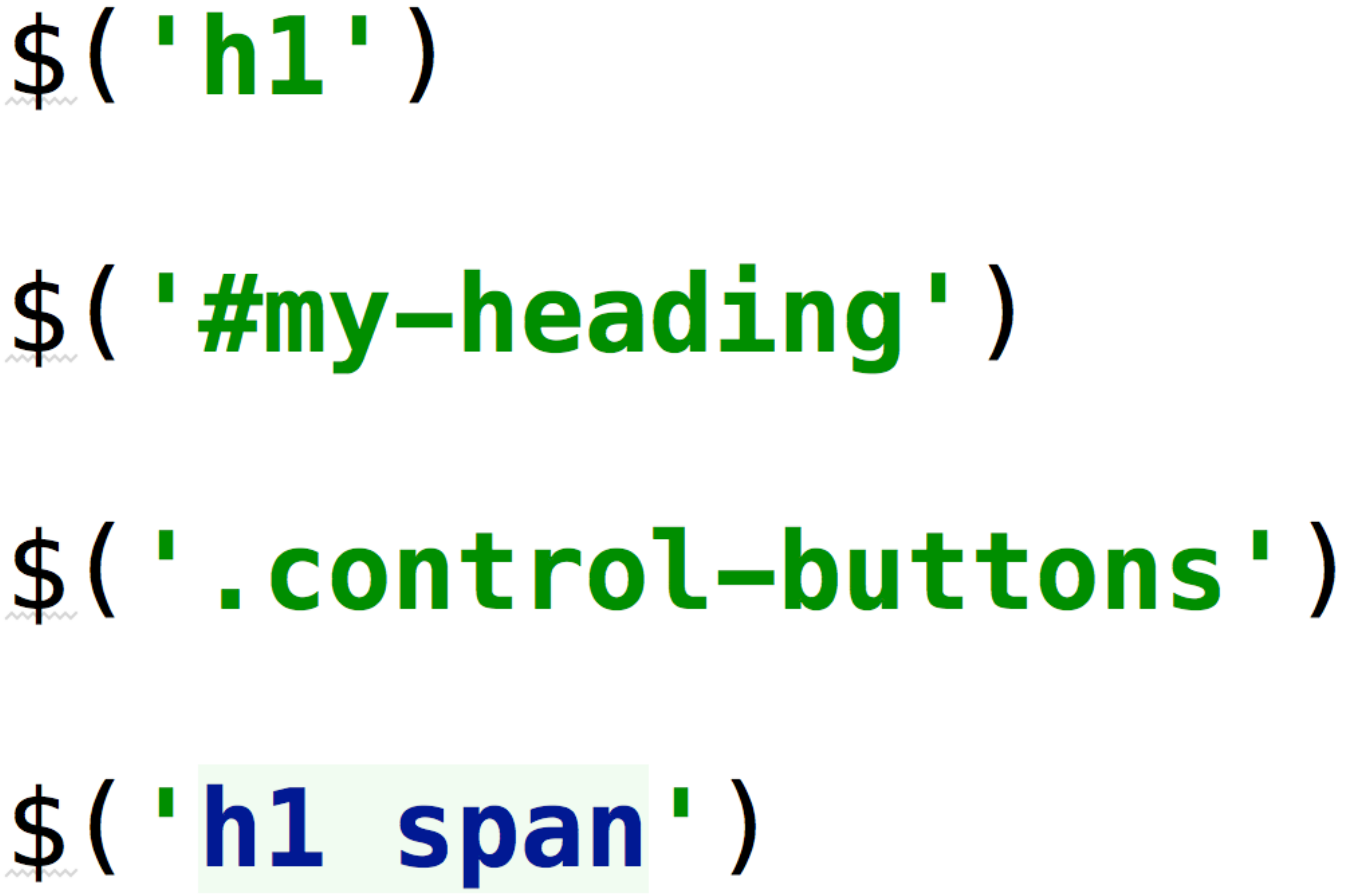
- Released in 2006.

- Nearly single-handedly changed the industry’s attitude towards Javascript and the web.

- Still used and useful today.

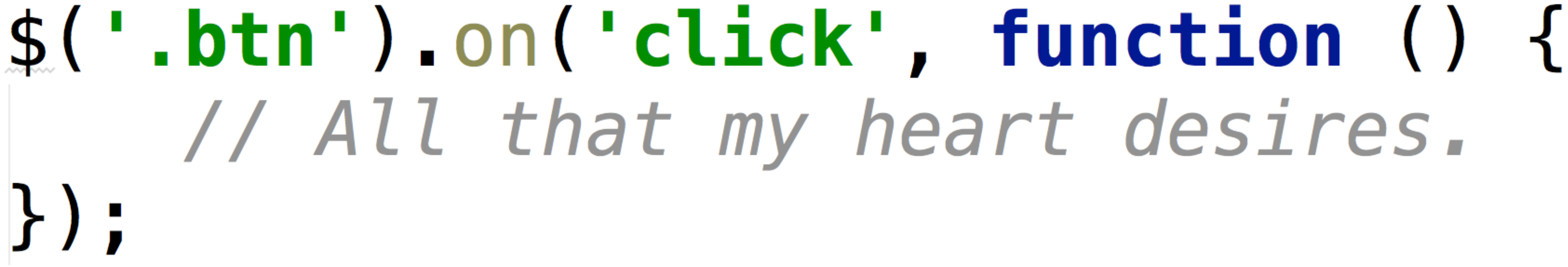
- So popular that some people know jQuery without any Javascript fundamentals.

jQuery
write less, do more.

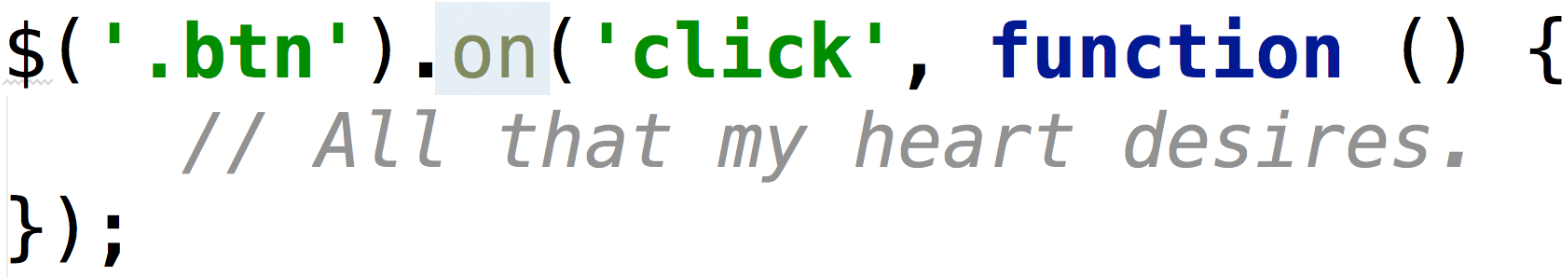


```
$('h1')

$('#my-heading')

$('.control-buttons')

$('h1 span')
```

GOOGLE WHAT YOU WANT TO DO



```
$('.btn').on('click', function () {
    // All that my heart desires.
});
```



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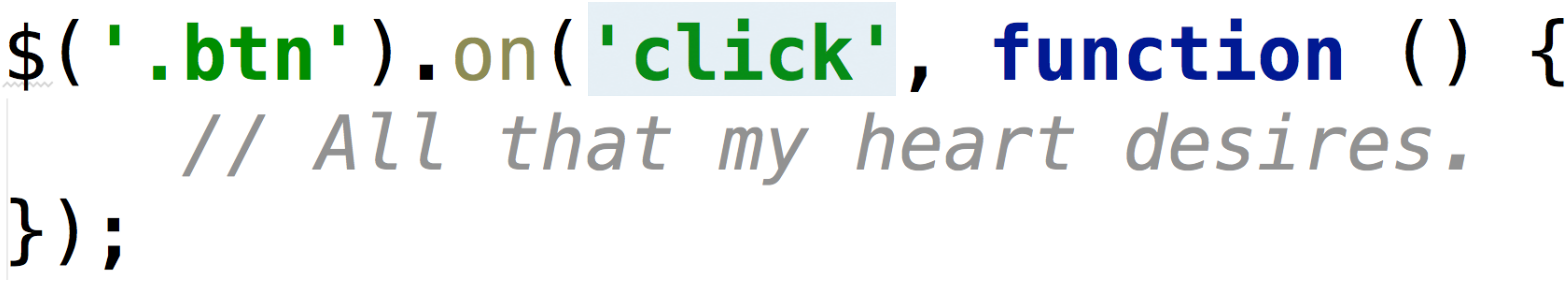

```
$('.btn').on('click', function () {
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});
```

CLICK

MOUSEDOWN

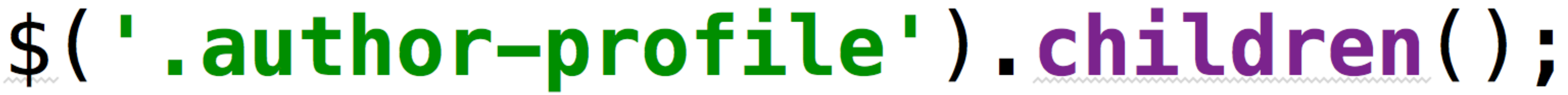
MOUSEUP

HOVER

CHANGE

KEYPRESS

```html
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```



```
$('.author-profile').children();
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
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</div>
```
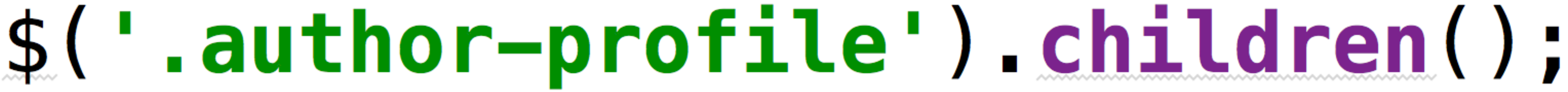
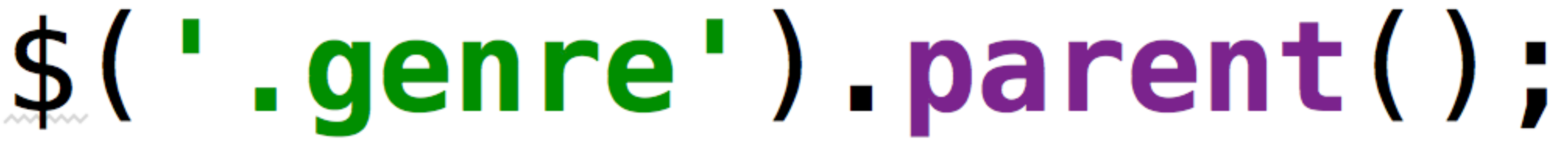



```
$('.author-profile').children();
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```

```
$('.author-profile').children('.author-name');
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```



```
$('.genre').parent();
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```

```
$('.genre').parent();
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```

```
$('.genre').siblings();
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```

```
$('.genre').siblings();
```

```
<div class="author-profile">
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    <ul class="titles">
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        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```
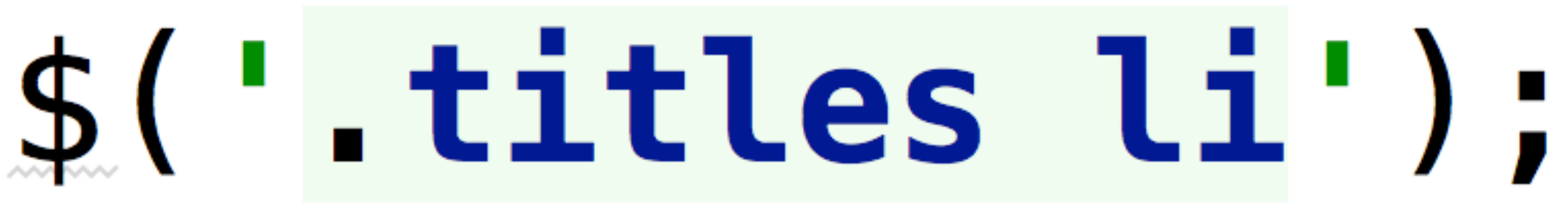
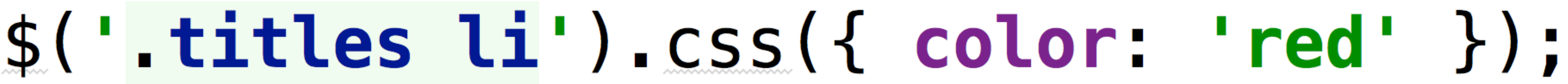



```
$('.titles li');
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
    <ul class="titles">
        <li class="top-pick">Neuromancer</li>
        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```



```
$('.titles li').css({ color: 'red' });
```

```
<div class="author-profile">
    <h1 class="author-name">William Gibson</h1>
    <h2 class="genre">Science Fiction</h2>
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        <li>Pattern Recognition</li>
        <li>Zero History</li>
    </ul>
</div>
```
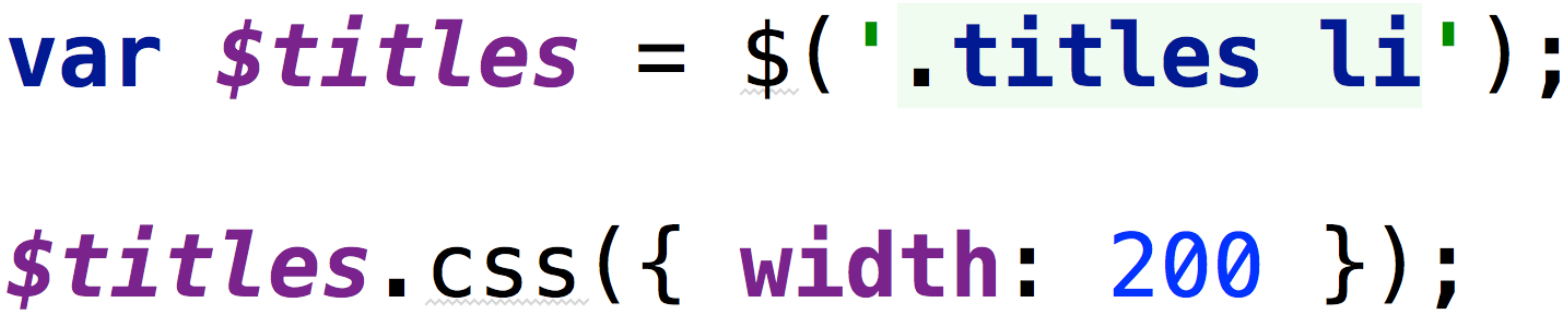
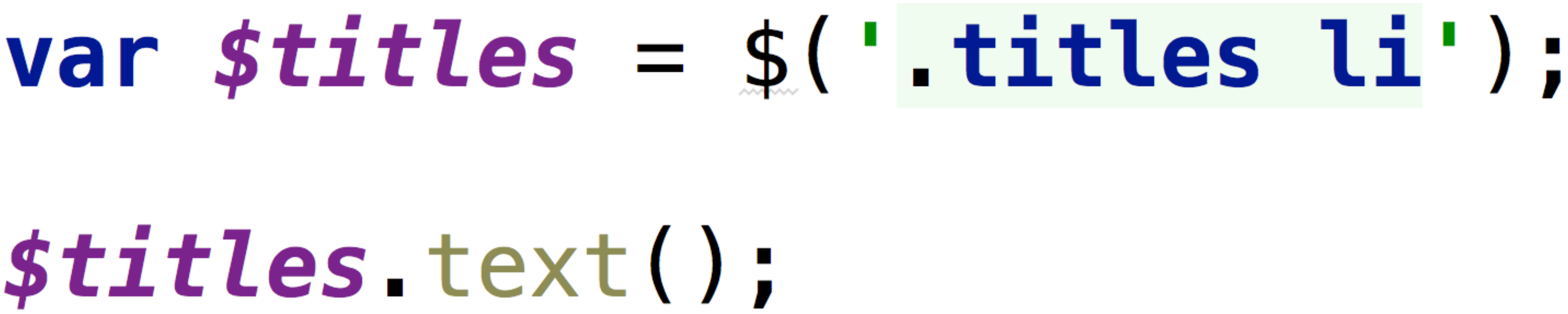

IMPLICIT LOOPING

If a jQuery object represents multiple elements, actions and traversal will be taken for each element.

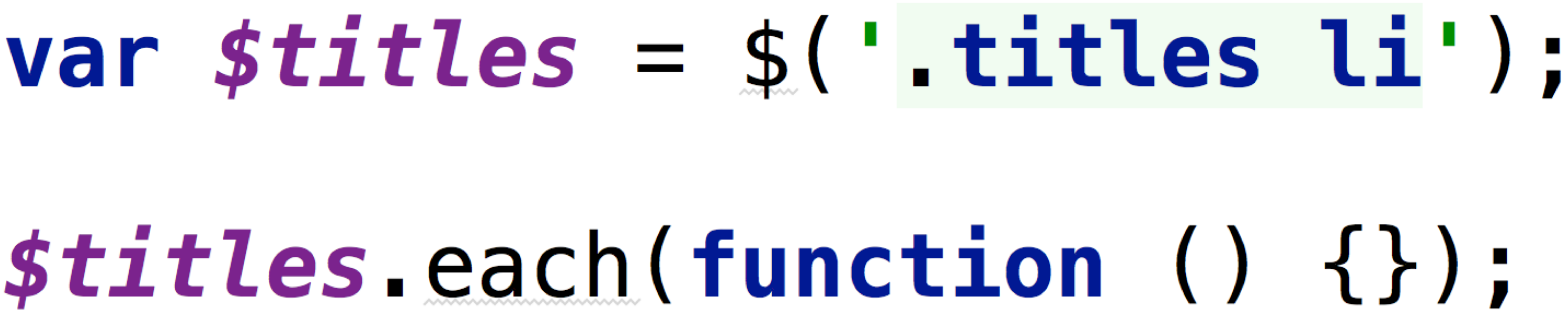


```
var $titles = $('.titles li');

$titles.css({ width: 200 });
```

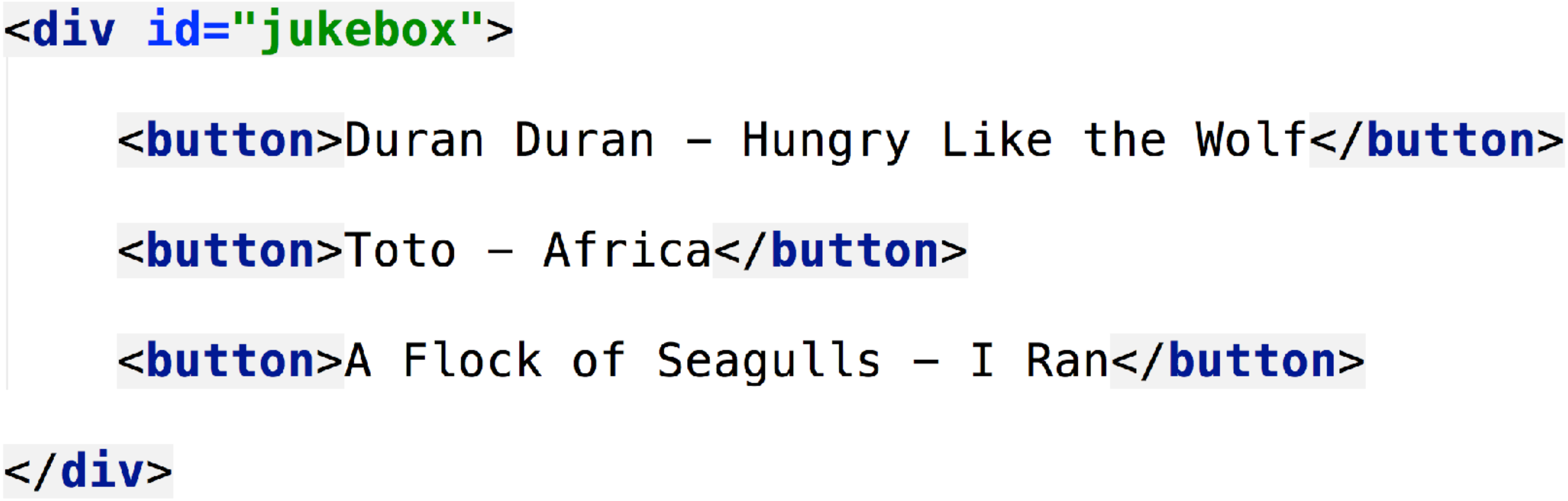


```
var $titles = $('.titles li');

$titles.text();
```

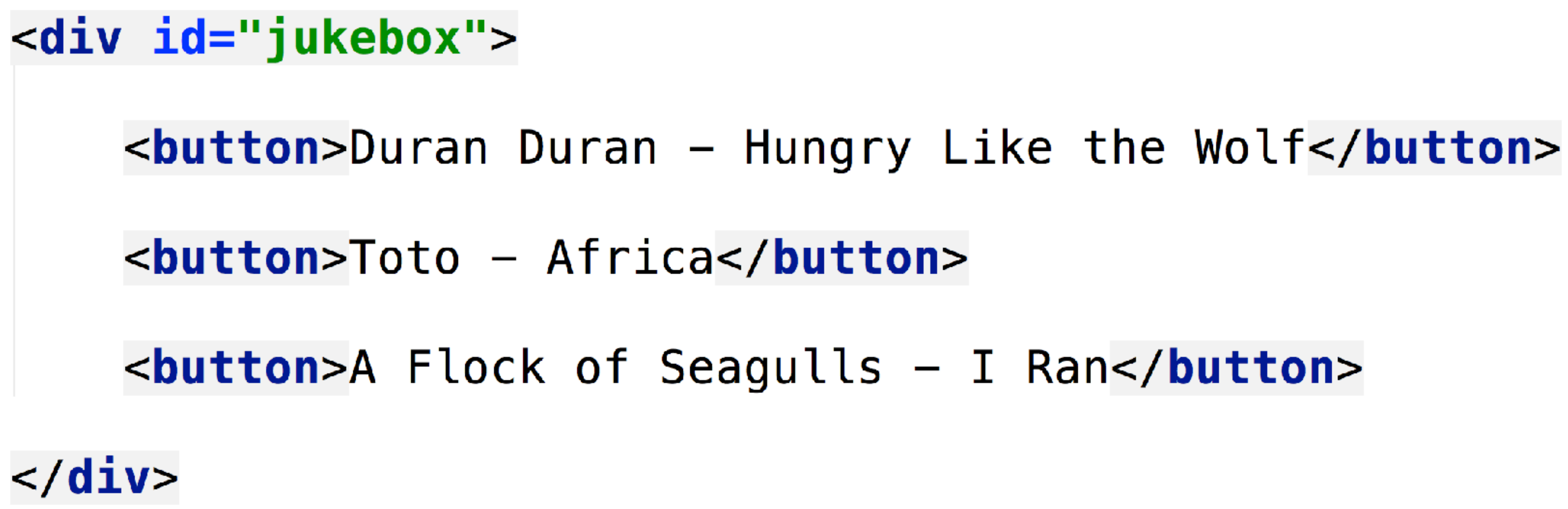
EXPLICIT LOOPING



```
var $titles = $('.titles li');

$titles.each(function () {});
```



```html
<div id="jukebox">
    <button>Duran Duran - Hungry Like the Wolf</button>
    <button>Toto - Africa</button>
    <button>A Flock of Seagulls - I Ran</button>
</div>
```



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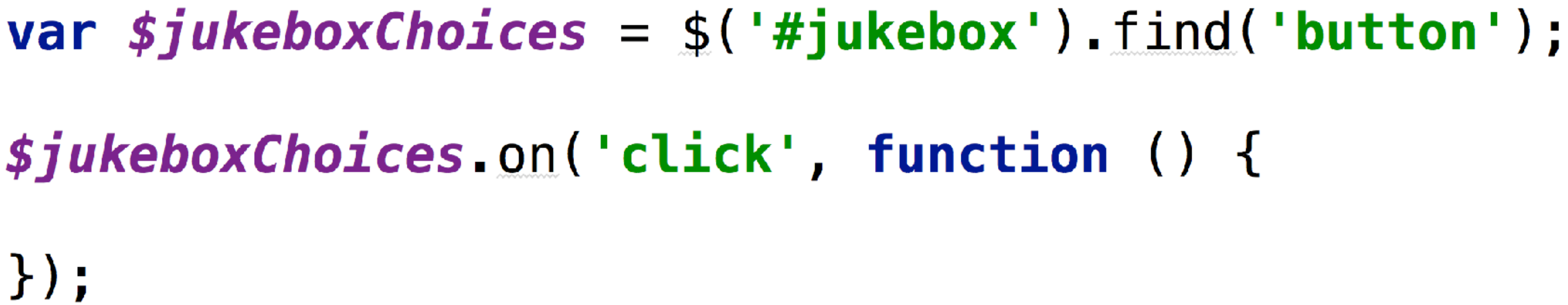
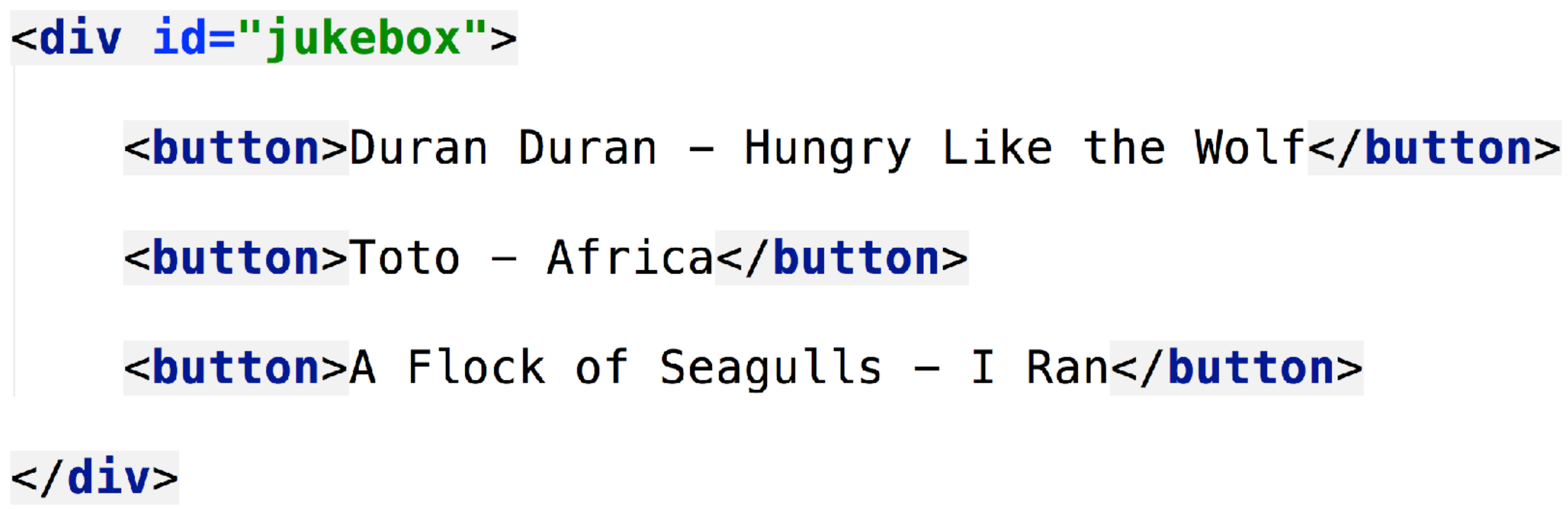


```javascript
var $jukeboxChoices = $('#jukebox').find('button');

$jukeboxChoices.on('click', function () {

});
```



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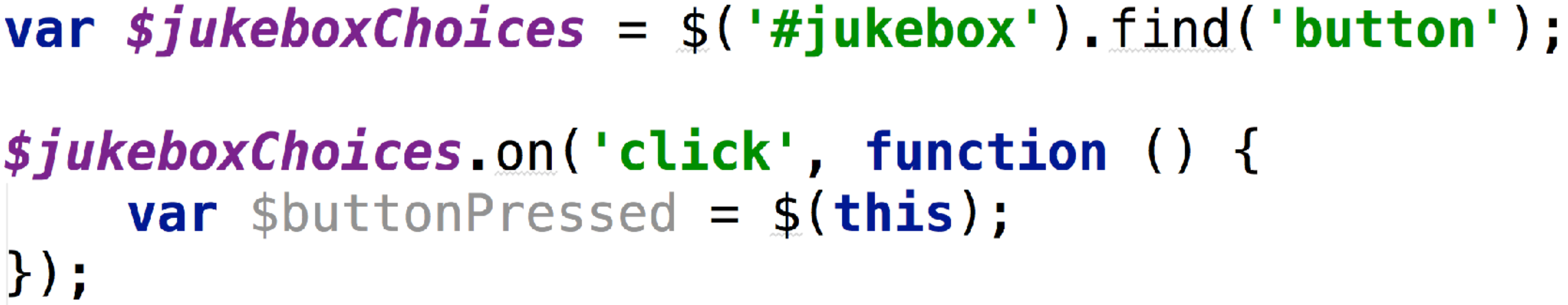


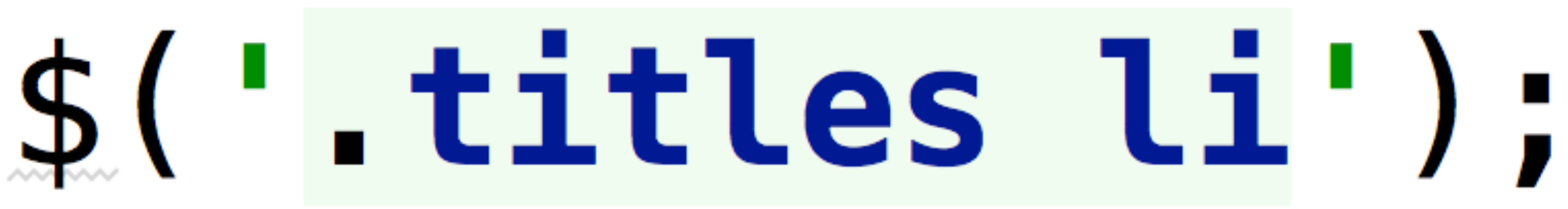
```javascript
var $jukeboxChoices = $('#jukebox').find('button');

$jukeboxChoices.on('click', function () {
    var $buttonPressed = $(this);
});
```

$

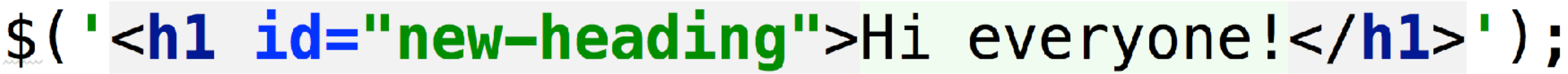
$
FIND || CREATE || CAST

FIND



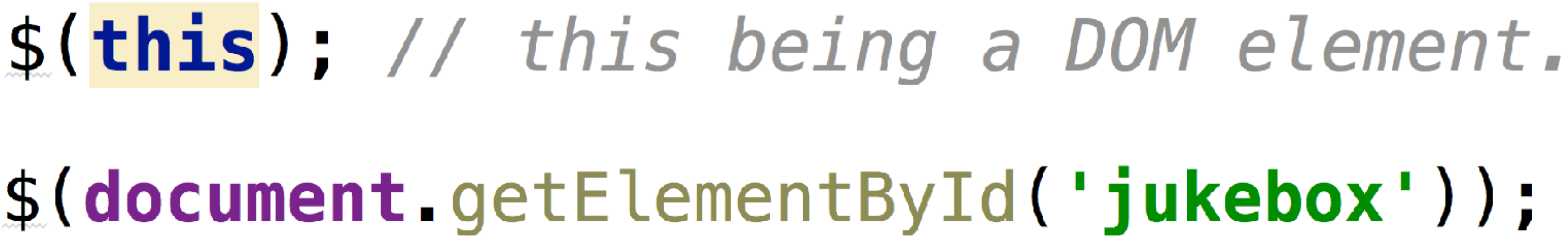
```
$('.titles li');
```

CREATE



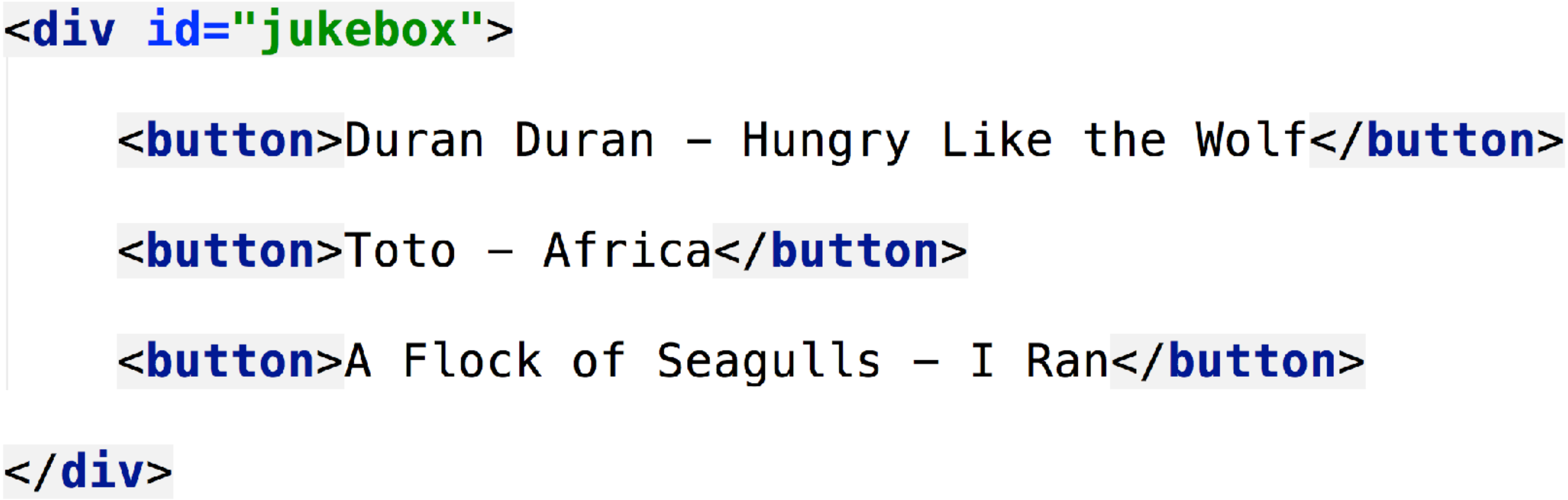
```
$('<h1 id="new-heading">Hi everyone!</h1>');
```

CAST



```
$(this); // this being a DOM element.

$(document.getElementById('jukebox'));
```



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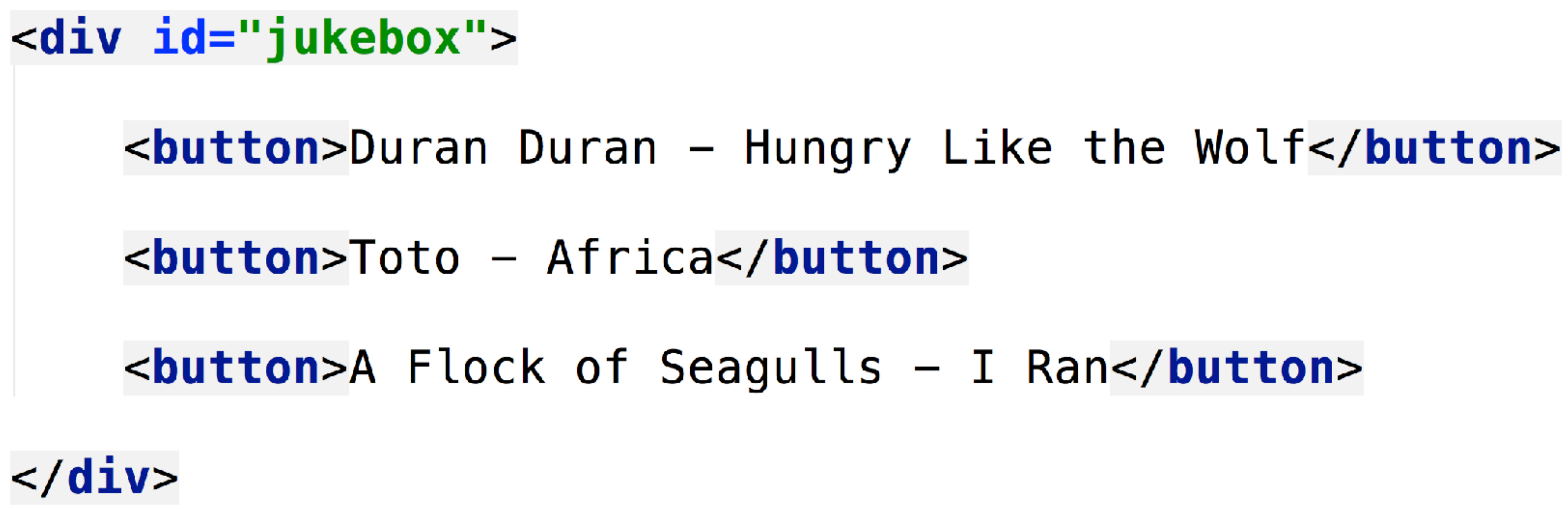

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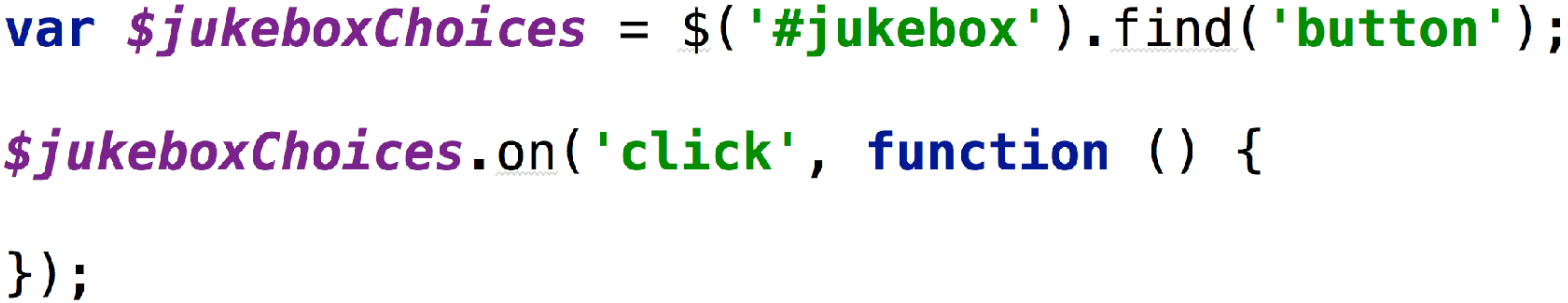

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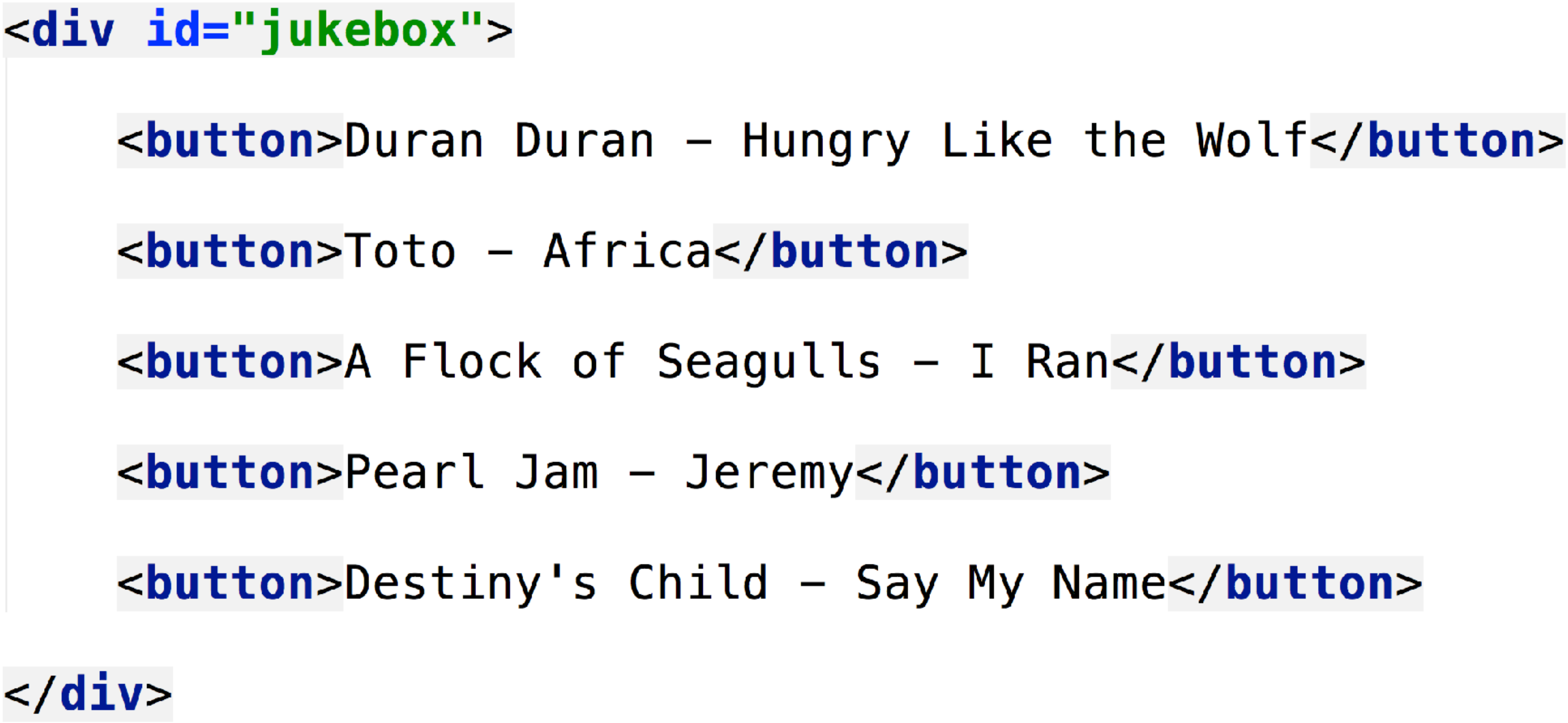
});
```



```html
<div id="jukebox">
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    <button>Toto – Africa</button>
    <button>A Flock of Seagulls – I Ran</button>
    <button>Pearl Jam – Jeremy</button>
    <button>Destiny's Child – Say My Name</button>
</div>
```

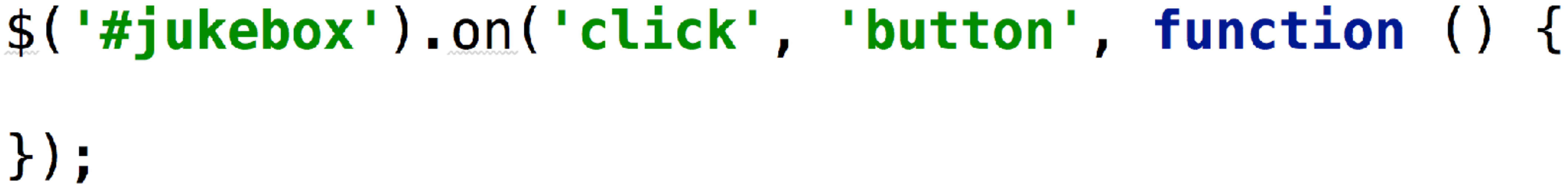

```
$('#jukebox').on('click', 'button', function () {

});
```

RECAP

- Client-side Javascript library.

RECAP

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- Good for DOM selection, event handling, managing element properties.

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