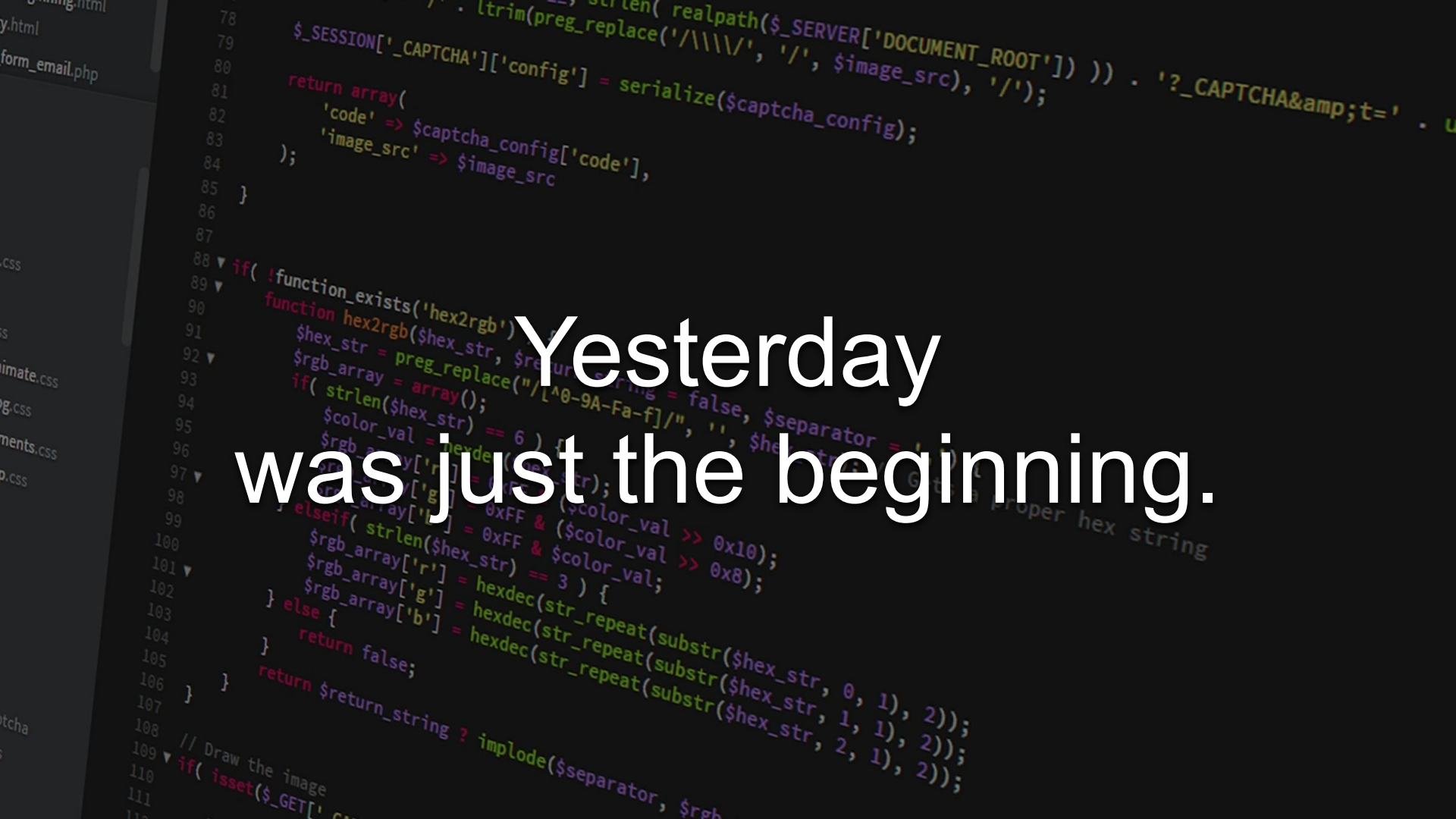
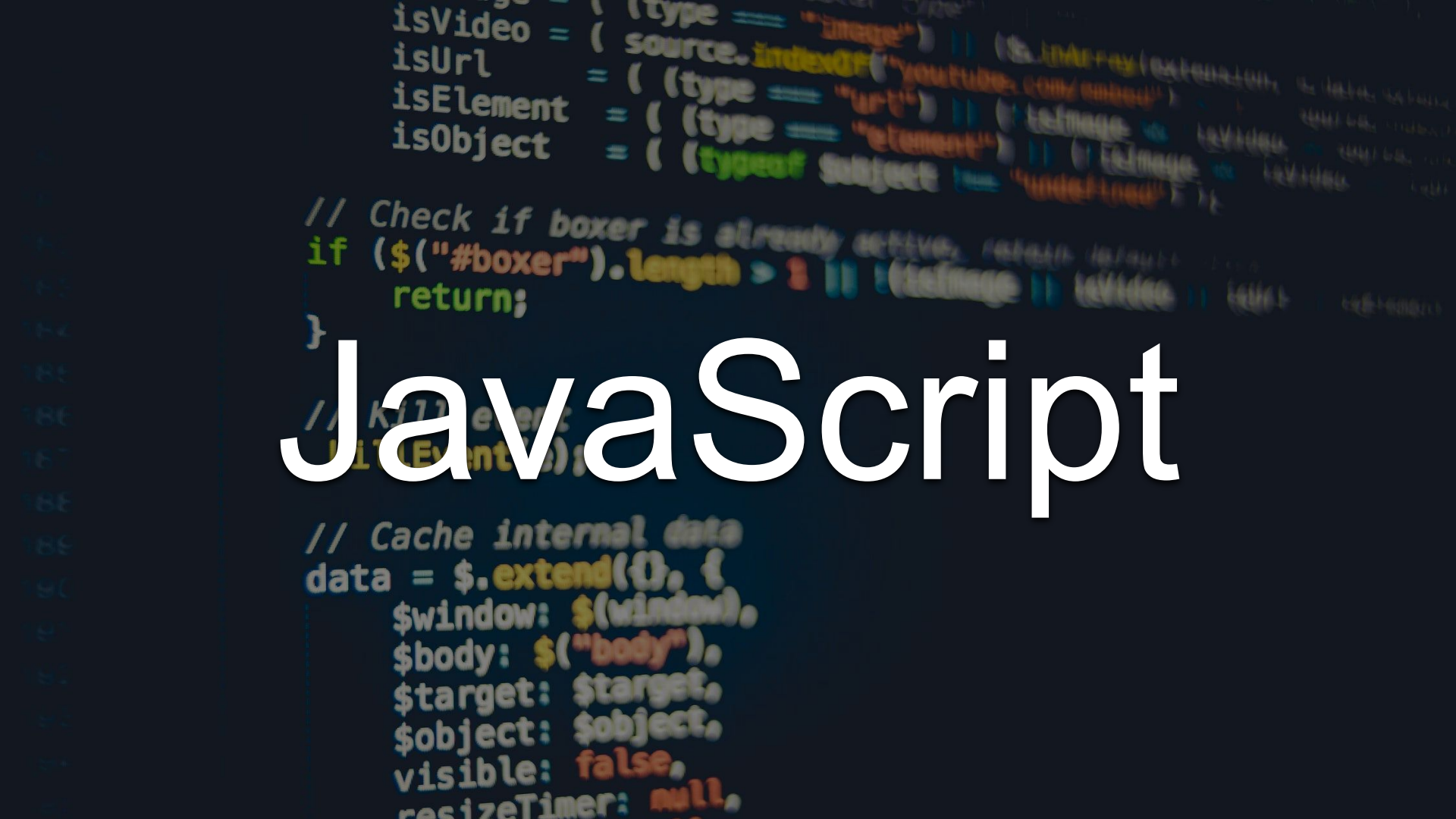
Web Dev in 2019


Yesterday
was just the beginning.


Where to go next?

What we’ll take a peek at now

- JavaScript
- More CSS
- Testing
- Build tools
- Backend


isVideo
isUrl
isElement
isObject
// Check if boxer is already active.
if ($("#boxer").length > 1 || !isImage || !isVideo
return;
}
// Cache internal data
data = $.extend({}, {
$window: $(window),
$body: $("body"),
$target: $target,
$object: $object,
visible: false,
resizeTimer: null,

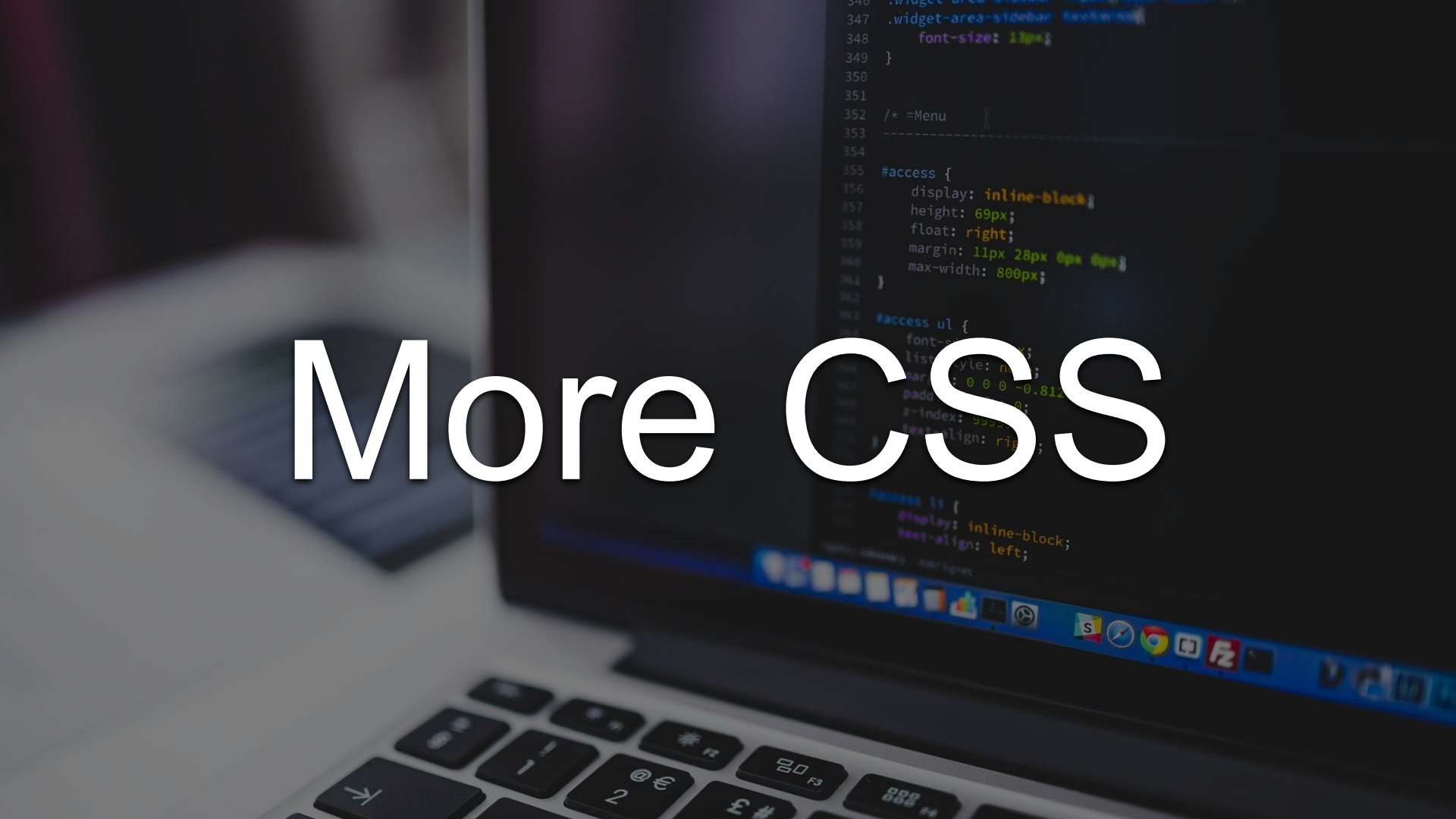
JavaScript

The web tech stack

- Content
  - HTML
- Design / Layout
  - CSS
- Behaviour / Interactivity
  - JavaScript

A teaser for the upcoming talk

```
<button>Click me!</button>


<!-- Let's make the button do something with JavaScript! -->
<script>
 document.querySelector('button').onclick = function() {
   alert('Hello world!');
 }
</script>
```


More CSS

Your CSS will probably grow.

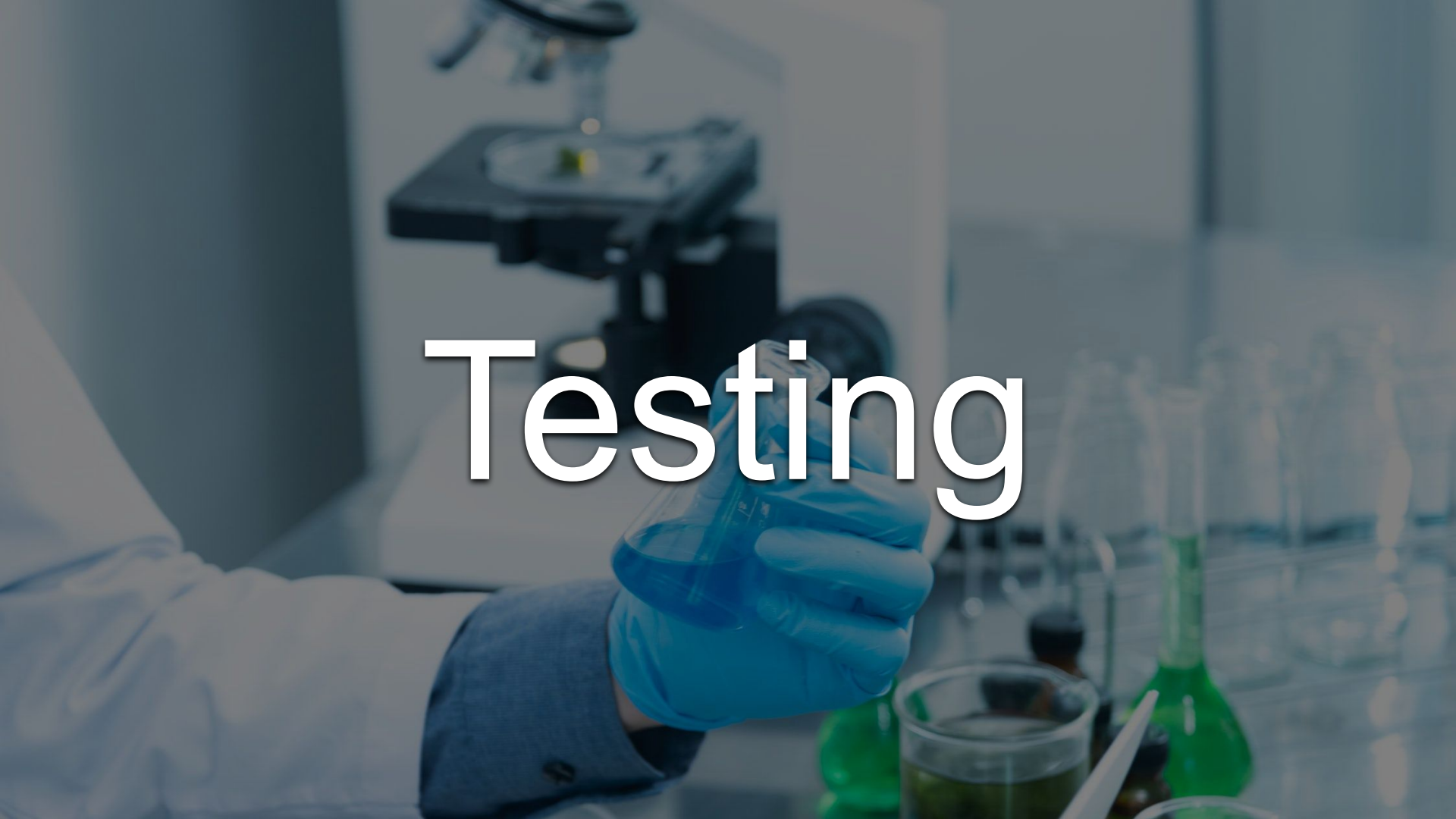
```
img { /*... */ }                    /* all images... */
img.hero { /* ... */ }              /* the big landing page image */
img.hero2 { /* ... */ }             /* another big image? */
.hero-container { /* ... */ }       /* a container for big images? */
.herocontainer1 { /* ... */ }       /* I give up. HELP! */
```

Methods to keep it tidy

- OOCSS: Object-oriented CSS
- BEM: Block-Element-Modifier
- ACSS: Atomic CSS
- SMACSS: Scalable & modular architecture

A sample for BEM

```
.product { /*...*/ }                    /* a product tile */
.product__img { /*...*/ }               /* the product image */
.product__title { /*...*/ }             /* the product title */
/* modified styles for highlighted (featured) products */
.product--featured { /*...*/ }
.product__title--featured { /*...*/ }
```


Testing

Automated testing

- Encourages better code design
- Faster development time, higher confidence
- Test categories
  - Unit tests
  - End-to-end tests

Test example: Unit test

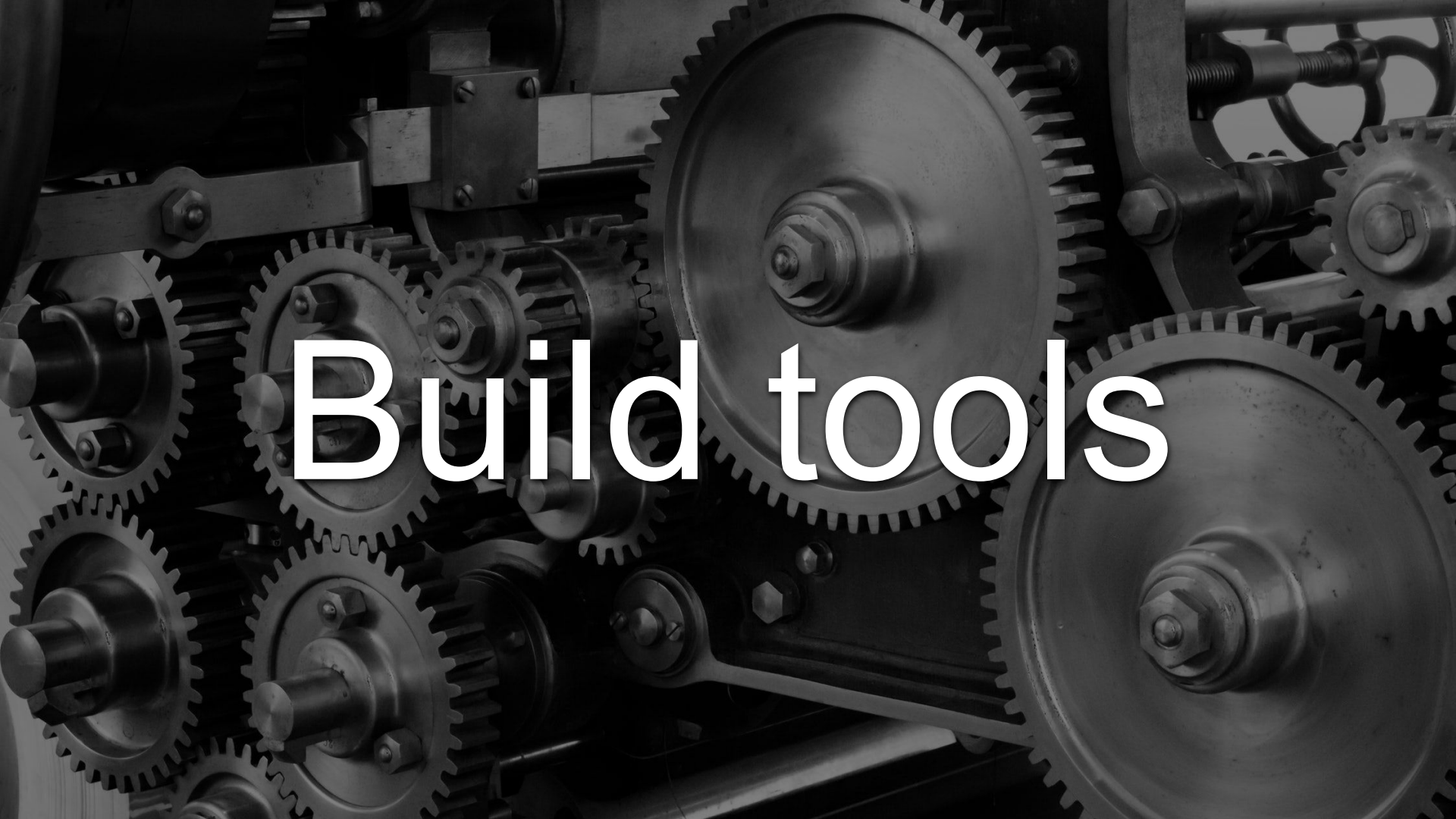
```
test('adds 1 + 2 and returns 3', function() {
 expect(add(1, 2)).toBe(3);
});

test('adds -1 and 1 and returns 0', function() {
 expect(add(-1, 1)).toBe(0);
});
```

Test example end-to-end test

```
describe('Shop page', function() {
 it('clicking "buy" goes to the checkout page', function() {
   cy.visit('https://example.org/shop')
   cy.contains('buy').click()
   // Should be on a new URL which includes '/checkout'
   cy.url().should('include', '/checkout')
 })
})
```

Testing tools

- Jest
- Karma
- Jasmine
- Cypress
- Ava


Build tools

Automate what takes you time

- You often have to repeat certain tasks
- Examples
  - Check if your code is correct & looks right
  - Resize images
  - Run your tests
  - Minimize your code

Use build tools to do that automatically

- Webpack
- Gulp
- Grunt
- npm scripts


Backend
GRIDSTORE
GRIDSTORE
GRIDSTORE
GRIDSTORE
APC
APC
APC
NUTANIX
NetApp
Schneider Electric
intel
DELL
EMC
EMERSON

When you need to do more...

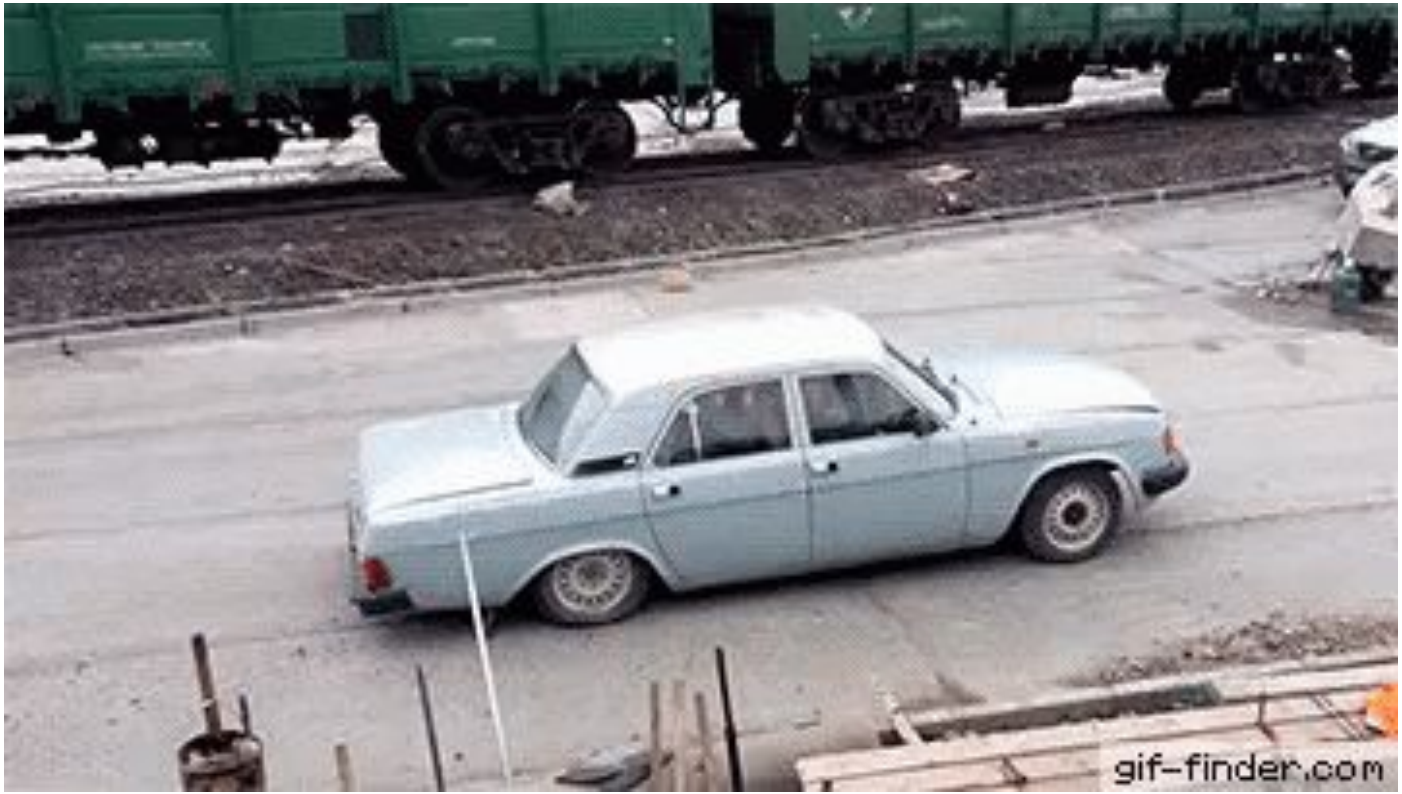
- Not everything can be done in the browser
- Not everything *should* be done in the browser
- Backends let you store data & do processing
  - Process a transaction
  - Store user data

Backend programming

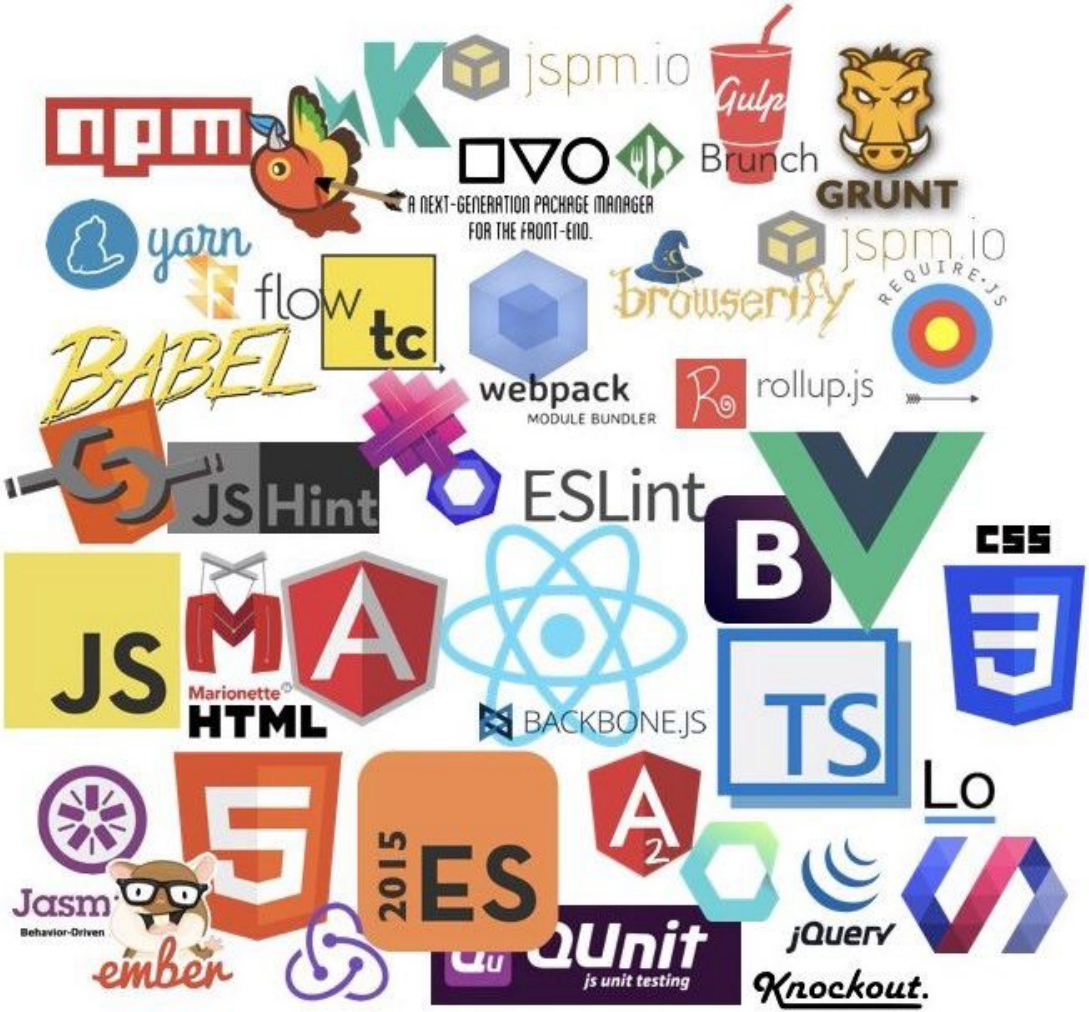
- JavaScript (node.js)
- Ruby
- Python
- PHP
- Java

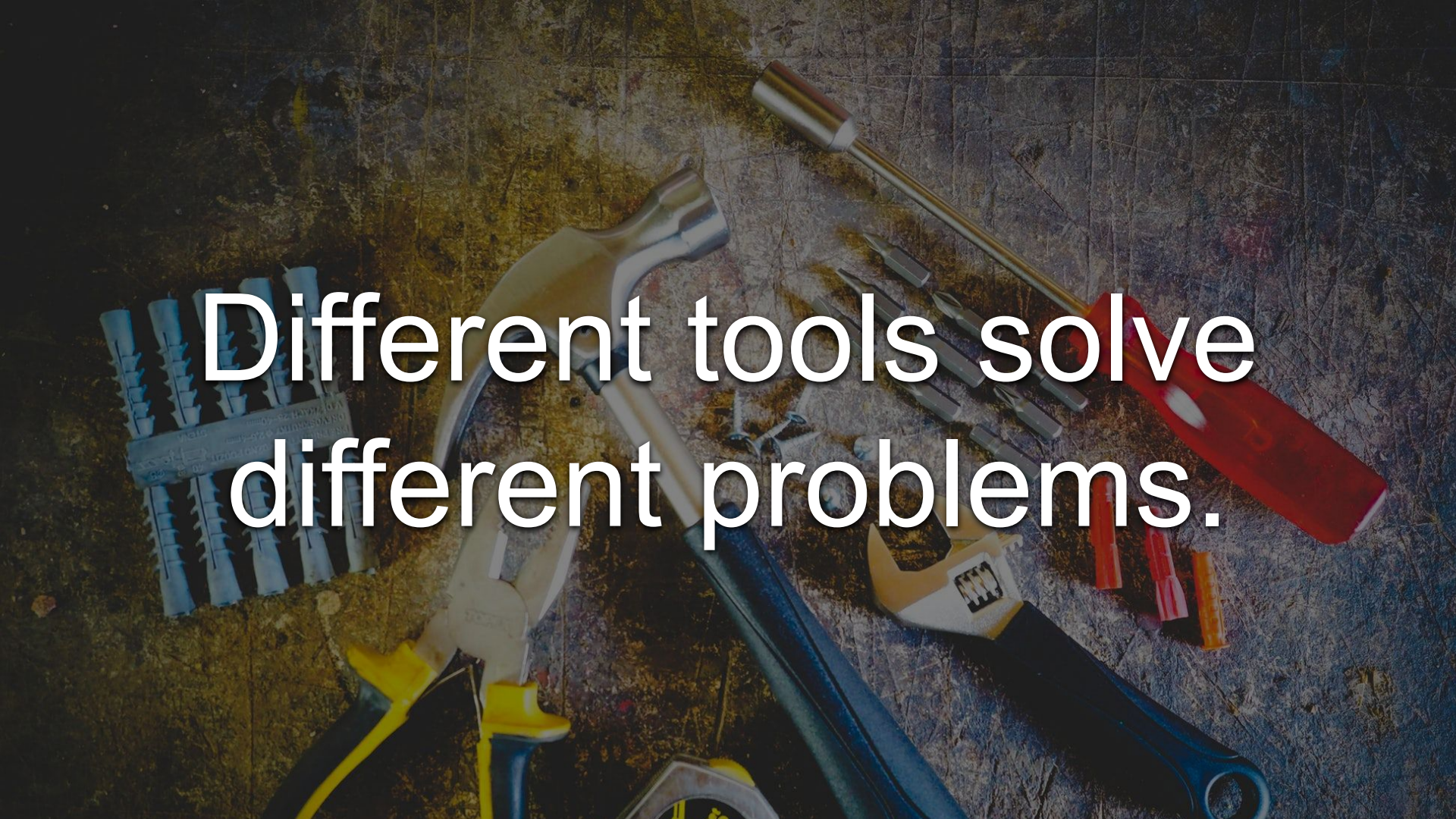

A note on tools

Web Dev tooling



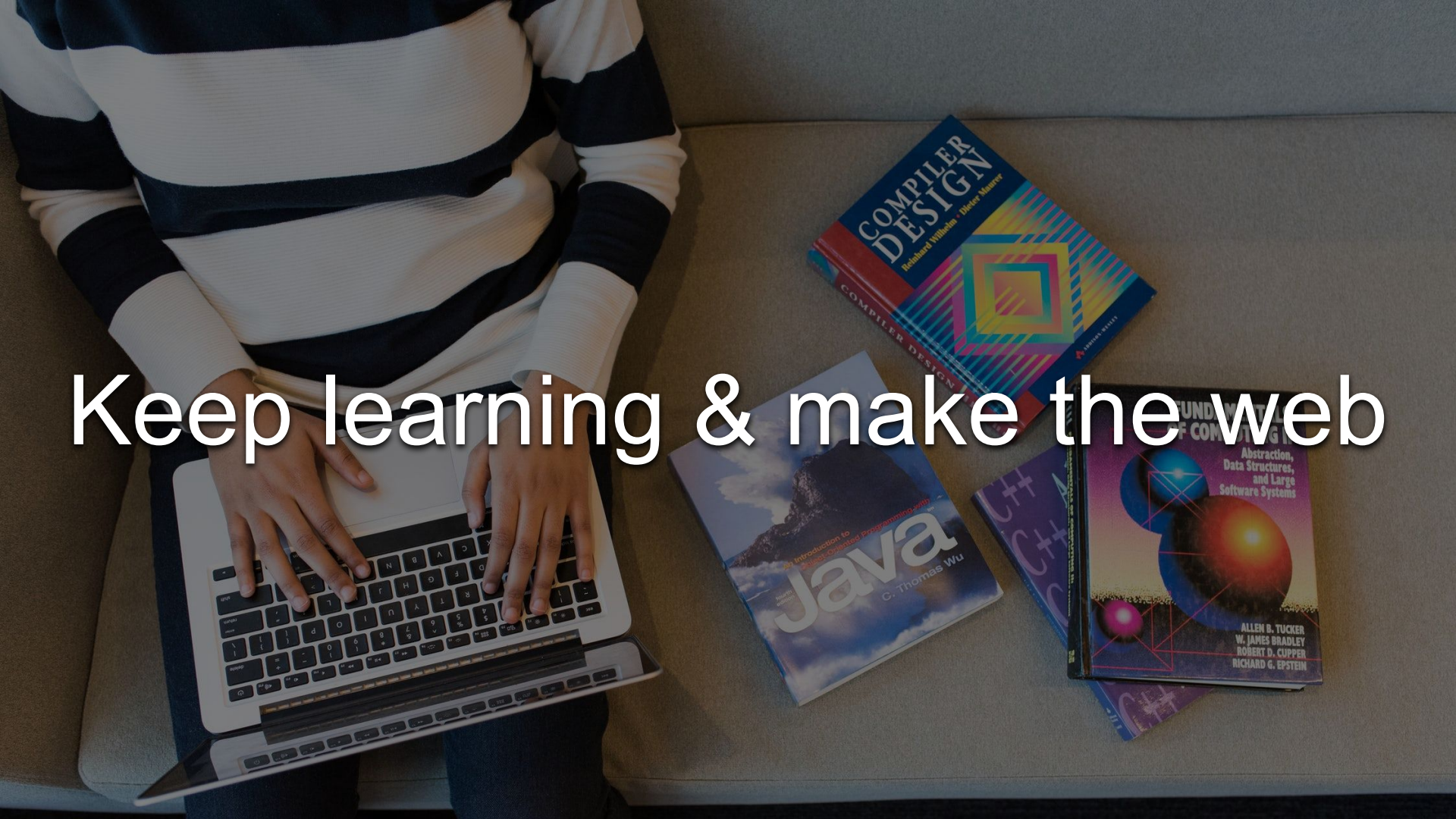
A small selection :)




Different tools solve
different problems.

Tools...

- It’s good to have a toolbox
- Use the simplest tool that solves the problem
- If a tool makes your life harder, try another
- Don’t listen to the haters



Keep learning & make the web