

```
...=0,k=p.length;...
...opped()break}}return...
...ark",i=f.data(a,e,b)...
...if(d=b&&a.nodeType...
...ment,d=a.navigator,e=a.location...
.../k=/^s+/,l=/s+/,...
...u=/nsie).([\w.]+)...
...otype.toString,E=Object.prototype...
...his.length-1;return this...
...){d=d instanceof e?d...
...merge(this,a)}h=c.get...
...&(this.selector=a.selector...
...Stack:function(a,b,c){...
...ch(this,a,b)},ready:fu...
...e",G.call(arguments).join(",")...
...xtend=function(){var a,c,d,f,g,h,i...
...c};if(i==f)continue;...
...y:!1,readyWait:1,holdReady:fu...
...ger&&e(c).trigger("ready").unbind...
...attachEvent){c.attachEvent("unready...
...ction(a){return e.type(a)=="array"...
...ction(a){if(!a||e.type(a)=="object"...
...var b in a)return!1;return 0},error...
...:(q,"").replace(r,""))return...
...d.loadXML(c)}catch(g){d.b...
...urn.a.replace(x,"ns-").replace...
...c.apply(a[g++],d)==1)break)also...
...ion(a,b){var c=b||[];if(a=null){var...
...n-1},merge:function(a,c){var d=a.l...
...sh(a[f]);return d},map:fu...
...h.concat.apply([],h)},guid:1,proxy...
...f,g,h){var i=a.length;if(typeof...
...Time()),uaMatch:function(a){a=a.t...
...prototype=this(),a.fn.constructor...
...".split("."),function(a,b){["object"...
...moveEventListener("DOMContentLoaded"...
...:function(){var a=[],b,c,d,e={done:fu...
...f=f||[],c=1;try{while(a[0])a.shift...
...f._Deferred(),d;f.extend(b,{then:fu...
...ments}},fail:c.done,rejectWith:c.res...
...isFunction(h.promise)?h.promise().then...
...call(b,b);return b},when:fu...
...Deferred();if(!...}
```


Which is clean?

A

```
for (var i = 1; i <= 100; i++) {  
  var f = i % 3 === 0, b = i % 5 === 0;  
  console.log(f ? b ? "FizzBuzz" : "Fizz" : b ? "Buzz" : i)  
}
```

B

```
console.log(  
  Array.apply(null, { length: 100 }).map((val, index) => {  
    index++  
    if (index % 15 === 0) { return "FizzBuzz" }  
    if (index % 3 === 0) { return "Fizz" }  
    if (index % 5 === 0) { return "Buzz" }  
    return index  
  }).join('\n')  
);
```

Which is clean?

A

```
function fibonacci(n) {  
  return n < 1 ? 0  
    : n <= 2 ? 1  
    : fibonacci(n - 1) + fibonacci(n - 2);  
}
```

B

```
const fibonacci = (n) => {  
  return (n <= 1) ? n : fibonacci(n - 1) + fibonacci(n - 2);  
}
```

What does this do?

```
function() {
  var check = false;
  (function (a) { if (/ (android|bb\d+|meego).+mobile|avantgo|bada\/|blackberry|blazer|compal|elaine|
  fennec|hiptop|iemoobile|ip(hone|od)|iris|kindle|lge |maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|
  in)i|palm( os)?|phone|p(ixi|re)\/|plucker|pocket|psp|series(4|6)0|symbian|treo|up\.(browser|link)|
  vodafone|wap|windows ce|xda|xiino|android|ipad|playbook|silk/i.test(a) || /1207|6310|6590|3gso|4thp|
  50[1-6]i|770s|802s|a wa|abac|ac(er|oo|s\-)|ai(ko|rn)|al(av|ca|co)|amoi|an(ex|ny|yw)|aptu|ar(ch|go)|
  as(te|us)|attw|au(di|\-m|r |s )|avan|be(ck|ll|nq)|bi(lb|rd)|bl(ac|az)|br(e|v)w|bumb|bw\-(n|u)|c55\/|
  capi|ccwa|cdm\-|cell|chtm|cldc|cmd\-|co(mp|nd)|craw|da(it|ll|ng)|dbte|dc\-s|devi|dica|dmob|do(c|p)o|
  ds(12|\-d)|el(49|ai)|em(l2|ul)|er(ic|k0)|esl8|ez([4-7]0|os|wa|ze)|fetc|fly(\-|_)|g1 u|g560|gene|gf\-5|
  g\-mo|go(\.w|od)|gr(ad|un)|haie|hcit|hd\-(m|p|t)|hei\-(hi|pt|ta)|hp( i|ip)|hs\-c|ht(c(\-| |_)a|g|p|s|
  t)|tp)|hu(aw|tc)|i\-(20|go|ma)|i230|iac( |\-|\/)|ibro|idea|ig01|ikom|im1k|inno|ipaq|iris|ja(t|v)a|jbro|
  jemu|jigs|kddi|keji|kgt( |\/)|klon|kpt |kwc\-(kyo(c|k)|le(no|xi)|lg( g|\/(k|l|u)|50|54|\-[a-w])|libw|
  lynx|m1\-w|m3ga|m50\/|ma(te|ui|xo)|mc(01|21|ca)|m\-cr|me(rc|ri)|mi(o8|oa|ts)|mmef|mo(01|02|bi|de|do|
  t(\-| |o|v)|zz)|mt(50|p1|v )|mwbp|mywa|n10[0-2]|n20[2-3]|n30(0|2)|n50(0|2|5)|n7(0(0|1)|10)|ne((c|m)\-|
  on|tf|wf|wg|wt)|nok(6|i)|nzph|o2im|op(ti|wv)|oran|owg1|p800|pan(a|d|t)|pdxg|pg(13|\-([1-8]|c))|phil|
  pire|pl(ay|uc)|pn\-2|po(ck|rt|se)|prox|psio|pt\-g|qa\-a|qc(07|12|21|32|60|\-[2-7]|i\-) |qtek|r380|r600|
  raks|rim9|ro(ve|zo)|s55\/|sa(ge|ma|mm|ms|ny|va)|sc(01|h\-\|oo|p\-\)|sdk\/|se(c(\-|0|1)|47|mc|nd|ri)|
  sgh\-\|shar|sie(\-|m)|sk\-\0|sl(45|id)|sm(al|ar|b3|it|t5)|so(ft|ny)|sp(01|h\-\|v\-\|v )|sy(01|mb)|t2(18|
  50)|t6(00|10|18)|ta(gt|lk)|tcl\-\|tdg\-\|tel(i|m)|tim\-\|t\-\mo|to(pl|sh)|ts(70|m\-\|m3|m5)|tx\-\9|up(\.b|g1|
  si)|utst|v400|v750|veri|vi(rg|te)|vk(40|5[0-3]|\-v)|vm40|voda|vulc|vx(52|53|60|61|70|80|81|83|85|98)|
  w3c(\-| )|webc|whit|wi(g |nc|nw)|wmlb|wonu|x700|yas\-\|your|zeto|zte\-\-/i.test(a.substr(0, 4))) check =
  true });
  return check;
}
```

//

YOU DON'T NEED COMMENTS
IF YOU WRITE CLEAN CODE

//



*CODE CAN DESCRIBE HOW,
BUT IT CANNOT EXPLAIN WHY.*

THE ART OF
COMMENTS

SARAH DRASNER

@SARAH_EDO

THE GOOD

WHAT IS THE WHY

WHAT IS THE WHY

```
/*
```

```
We had to write this function because the browser  
interprets that everything is a box
```

```
*/
```



```
// Most of the time, we properly position a tooltip so that its bounding box
// is disjoint from the triggering node. That is, if you hover over the
// tooltip then you are no longer over the node. This is what we want.
// However this isn't always the case. It is possible for them to intersect.
// When the mouse is over that area (often a 1px-tall sliver), the tooltip
// flickers incessantly, switching between visible and hidden — because
// when the mouse is over the tooltip, it no longer counts as hovering the
// trigger.
//
// When does this happen, you ask? It's not the common case. The node with
// data-tooltip gets measured and the tooltip is placed relative to that.
// You'd think this would be bulletproof. But it's not. Here's one problem:
//
// <span data-tooltip="an inline element">
//   <button>a button</button>
// </span>
//
// In a case like this, it's possible for the button's bounding box to
// extend *outside* of its parent's. That's because the inline element's
// dimensions are determined by the line-height, but the button goes beyond
// that. You can also imagine this happening with manual positioning. When
// this happens, the tooltip is triggered if you hover the button, but we
// position it relative to the span. Bad news.
//
// How can we fix this?
// 1) We could avoid triggering the tooltip if the mouse is outside the
// span, even if it's inside a descendant. This sounds reasonable, but we
// don't have a good way to do this efficiently — we don't receive a
// mouseover event when crossing that threshold by moving between different
// parts of the button.
// 2) We could measure *all* of the span's descendants, union the
// rectangles, and position the tooltip relative to that. This too is
// nontrivial to implement efficiently. It would also require changing core
// ContextualLayer code that might have other implications.
// 3) Keep showing the tooltip when your mouse is over it, as long as your
// mouse is "also over" the triggering element. That is, just keep the
// tooltip showing when your mouse is in that (often 1px) sliver. This
// sounds relatively harmless, so let's do it by disabling pointer events.
_tooltip.getRoot().style.pointerEvents = 'none';
```

CLARIFY WHAT'S NOT TYPICALLY LEGIBLE BY HUMANS

```
// is Firefox, versions 2-3
```

```
/a/[-1]='a';
```

```
// targets Chrome ≤ 28, Safari ≤ 7, Opera ≥ 14
```

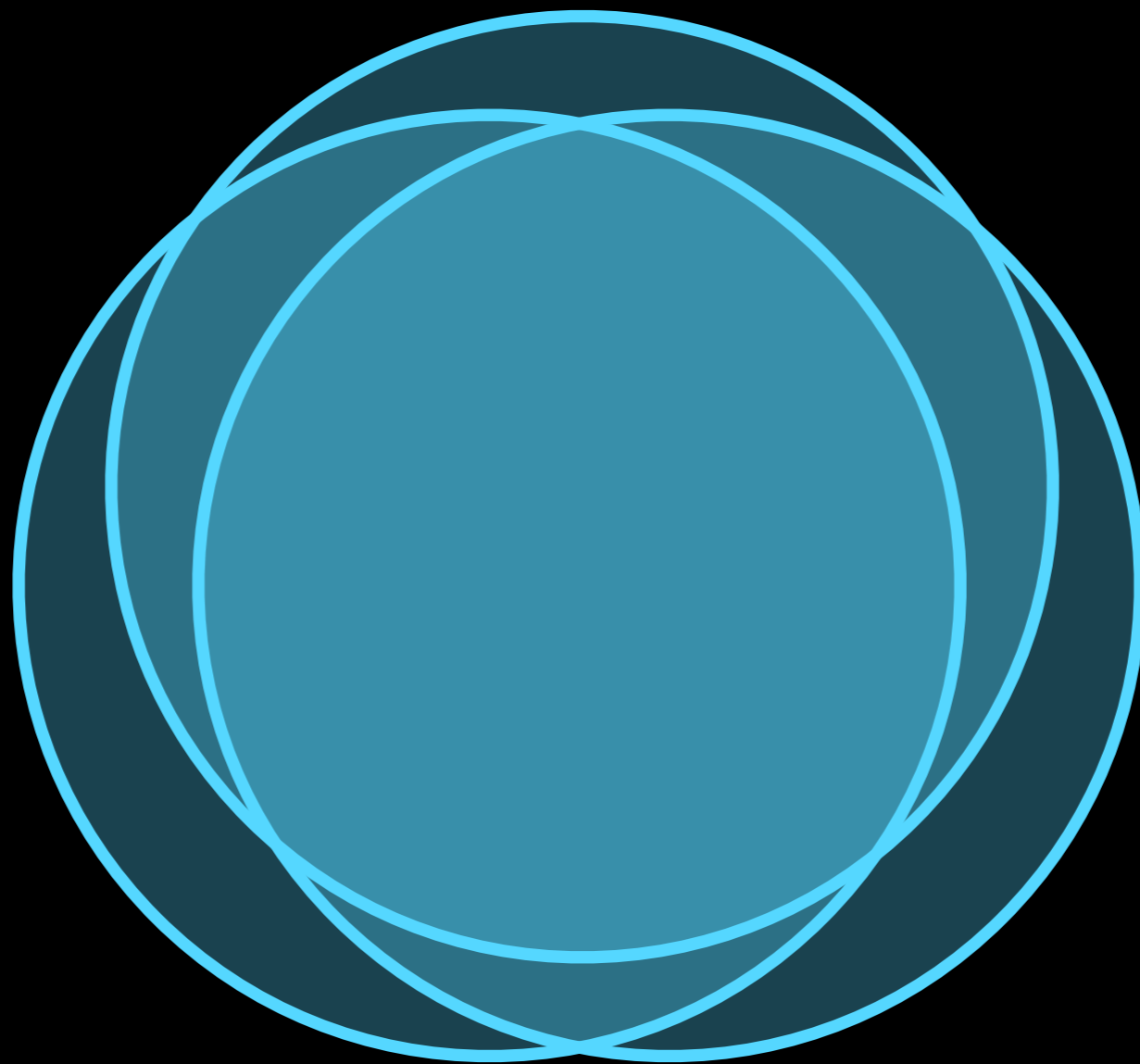
```
.selector { [;property: value;] }
```

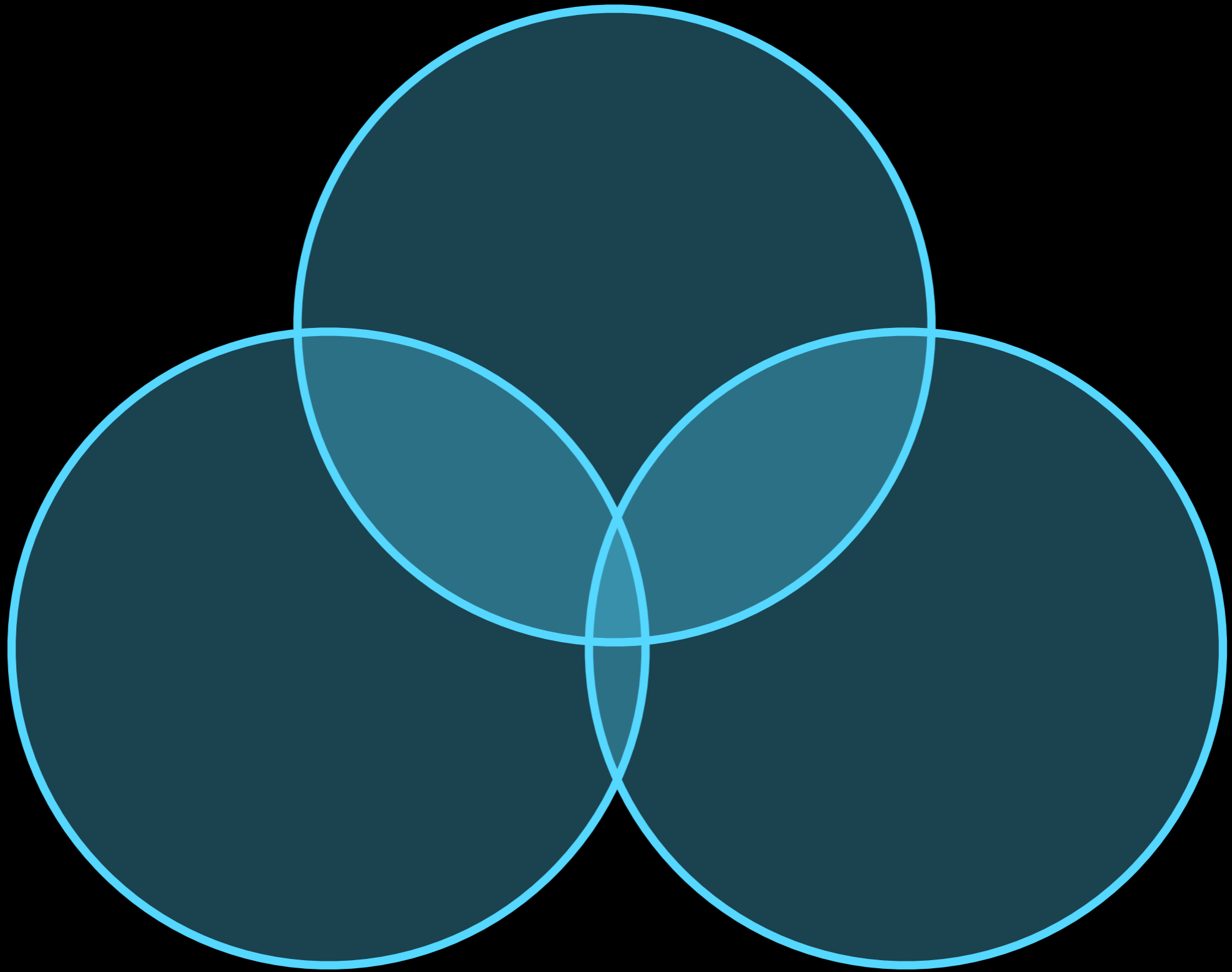
WHO'S SMART?

WE ARE!

WHO WRITES
CLEAN CODE?

WE DO!





COMMENTS CAN BE LIKE CHAPTERS OF A BOOK

```
// GEOMETRY
geometry.addAttribute("customColor", new THREE.BufferAttribute(colors, 3));
geometry.addAttribute(
  "displacement",
  new THREE.BufferAttribute(displacement, 3)
);

// SHADER MATERIALS
uniforms = {
  amplitude: { value: 0.0 }
};
const shaderMaterial = new THREE.ShaderMaterial({
  uniforms: uniforms,
  vertexShader: document.getElementById("vertexshader").textContent,
  fragmentShader: document.getElementById("fragmentshader").textContent
});
```

A GUIDE TO KEEP THE LOGIC STRAIGHT WHILE WRITING THE CODE

```
// get the request from the server  
// give us an error if it failed  
// do x thing with that request  
// format the data like so
```

A GUIDE TO KEEP THE LOGIC STRAIGHT WHILE WRITING THE CODE

```
// get the request from the server  
// give us an error if it failed  
// do x thing with that request  
// format the data like so
```


THIS IS OK TO REFACTOR

```
// this isn't my best work,  
// but we had to get it in by the deadline
```

COMMENTING AS A TEACHING TOOL


```
//the data comes from the other hook
export function logolettering(data) {
  useMounted(function () {
    //this is the width that we stored in data from the previous hook
    if (data.data.width > 1200) {
      // we can use refs if they are called in the useMounted hook
      const logoname = this.$refs.logoname;
      Splitting({ target: logoname, by: "chars" });
      ...
    }
  })
}
```



Jason Rueckert

@jsonify

Follow

 [#100DaysOfSwift](#). So to help myself better understand the tutorial code from [@twostraws](#), I've started adding comments above each line that states what each line of code does, and if I can't figure out how to describe it, I know that I need to research it again. [#100DaysOfCode](#)

```
func createFirework(xMovement: CGFloat, x: Int, y: Int) {
    // create the node (ie container for the firework and the emitter)
    let node = SKNode()
    // give the node a starting position
    node.position = CGPoint(x: x, y: y)

    // declare the firework using the "rocket" image
    let firework = SKSpriteNode(imageNamed: "rocket")
    // set the color blending factor (ie 1 for 100% of the color we set it to)
    firework.colorBlendFactor = 1
    // give the SKSpriteNode a name for later reference
    firework.name = "firework"
    // add the node to the game scene
    node.addChild(firework)

    // switch based on a random number between 0, 1, 2
    switch Int.random(in: 0...2) {
        // if the random number is one of these cases,
        case 0:
            // set the color property of the firework spritenode to the chosen UIColor
            firework.color = .cyan
        case 1:
            firework.color = .green
        default:
            firework.color = .red
    }

    // declare the path as a UIBezierPath object
    let path = UIBezierPath()
    // set the path's current point to the specified location (0,0).
    path.move(to: .zero)
```

@sarah_edo

I STACK OVERFLOWED THE BEJEEZUS OUT OF THIS

```
/*
```

```
Webpack 🙄 amirite?
```

```
this is mostly copied from the answer below:
```

```
https://stackoverflow.com/questions/26203725/how-to-allow-for-  
webpack-dev-server-to-allow-entry-points-from-react-router
```

```
*/
```

I STACK OVERFLOWED THE BEJEEZUS OUT OF THIS

```
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this is mostly copied from the answer below:
```

```
https://stackoverflow.com/questions/26203725/how-to-allow-for-  
webpack-dev-server-to-allow-entry-points-from-react-router
```

```
*/
```

COMMENTS CAN BE HELPFUL

IT'S TIME TO RETIRE "RTFM"

<https://bit.ly/2LmTmke>

April Wensel, Compassionate Coding

EVACUATION MAP

Good
LUCK

THE BAD

THEY JUST SAY WHAT IT'S ALREADY DOING

```
// if foo equals bar ...  
if (foo === bar) {  
  
} // end if
```

IT WASN'T WELL MAINTAINED

The comment is in your code.

*It's your job to work on it,
even if it means deleting it.*

IT WASN'T WELL MAINTAINED

```
/*
```

```
we need to use the FLIP technique  
to be more performant in every browser
```

```
*/
```

HOARDERS, BUT FOR CODE

```
created() {  
  window.addEventListener('scroll', () => {  
    this.bottom = this.bottomVisible()  
  })  
  //this.removeExtraItem() ←  
  this.addItemFromCart()  
},
```

YOU COULD HAVE USED A BETTER NAME

```
function makeText(p, g) {  
  g.computeBoundingBox();  
  g.userData = {};  
  
  let aX = g.userData.size.w * -p.a.x;  
  let aY = g.userData.size.h * -p.a.y;  
  let aZ = g.userData.size.d * -p.a.z;  
  let matrix = new THREE.Matrix4().makeTranslation(aX, aY, aZ);  
  
  g.applyMatrix(matrix);  
  return g;  
}
```

YOU COULD HAVE USED A BETTER NAME

```
function generateTextGeometry(params, geometry) {  
  geometry.computeBoundingBox();  
  geometry.userData = {};  
  
  let anchorX = geometry.userData.size.width * -params.anchor.x;  
  let anchorY = geometry.userData.size.height * -params.anchor.y;  
  let anchorZ = geometry.userData.size.depth * -params.anchor.z;  
  let matrix = new THREE.Matrix4().makeTranslation(anchorX, anchorY, anchorZ);  
  
  geometry.applyMatrix(matrix);  
  return geometry;  
}
```




Mike Kerr

@codecareercoach

Follow



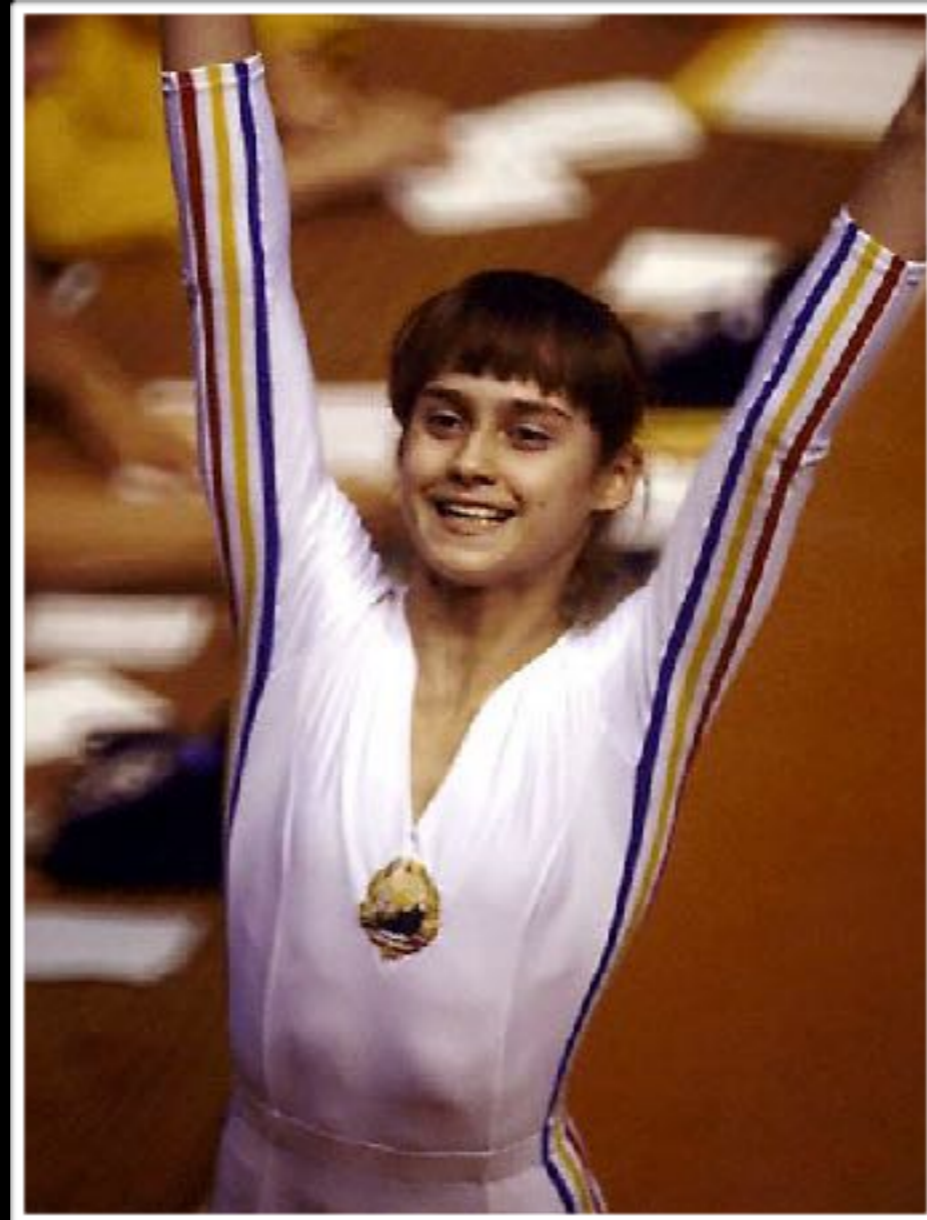
Replying to [@getify](#)

I like the rule in FP that if it's hard to name, maybe you're giving the function too much responsibility. Refactoring has helped me name and likewise, trying to name has also helped me make my functions smaller.

THE COMMENTS ARE AN
EXCUSE FOR NOT WRITING THE
CODE BETTER TO BEGIN WITH



Do your best! 💪



What would a younger you need?

30% WRITING CODE

70% READING CODE

Kyle Simpson, @getify


sdras / vscodecandothat Private Unwatch 3

Code Issues 6 Pull requests 0 Actions Projects 0 Wiki Insights

Video #23

Merged sdras merged 3 commits into master from video on Apr 3, 2018



Conversation 0 Commits 3 Checks 0 Files changed 3

 sdras commented on Feb 9, 2018

I had a placeholder video in before so that we could see the site with the monokai dimmed theme as it will be, but now I put the real videos in from the vuex store, so that people can see their videos in place.

Also, fixed the numbers, which were always prepended with 0 in the filter even if it was beyond 10.

sdras added some commits on Feb 9, 2018

-  get the real videos in and clicks f37b034
-  fix numbers 5efcae8

Learned from @stacykvernmo



*// When I wrote this,
// only God and I understood what I was doing
// Now, God only knows*

```
/*  
  I dedicate all this code, all my work, to my wife, Darlene,  
  who will have to support me and our three children and the dog  
  once it gets released into the public.  
*/
```

```
// drunk, fix later
```

```
// <1st dev>Images are deleted by GDIPlus  
// -----  
// <2nd dev>: Well I'm not sure about that
```

// somedev1- 6/7/02 Adding temporary tracking
of login screen

// somedev2- 5/22/07 Temporary my ass



Kelly Vaughn

@kvilly



Following



Sometimes you need to be your own cheerleader

```
// This is not a useful comment, but you are useful and can do this <3
```

```
function addToCartSuccess($this) {
```

```
  $this.prop('disabled', true).text('Added to Cart!');
```

```
  let cart_count = parseInt($('.cart-link .count span').text());
```

```
  cart_count += 1;
```

```
  s('.cart-link .count').html(`(<span>${cart_count}</span>`);
```

```
  s('.count').css('display', 'inline-block');
```

```
}
```



THANK YOU!

@sarah_edo