stop using native HTML5

Kyle Simpson
http://getify.me
@getify

http://yj9.geti.fi/slides/strangeloop

native HTML5 (JavaScript) considered harmful!!!!

--linkbait

HTML5 Cookbook

O'REILLY®

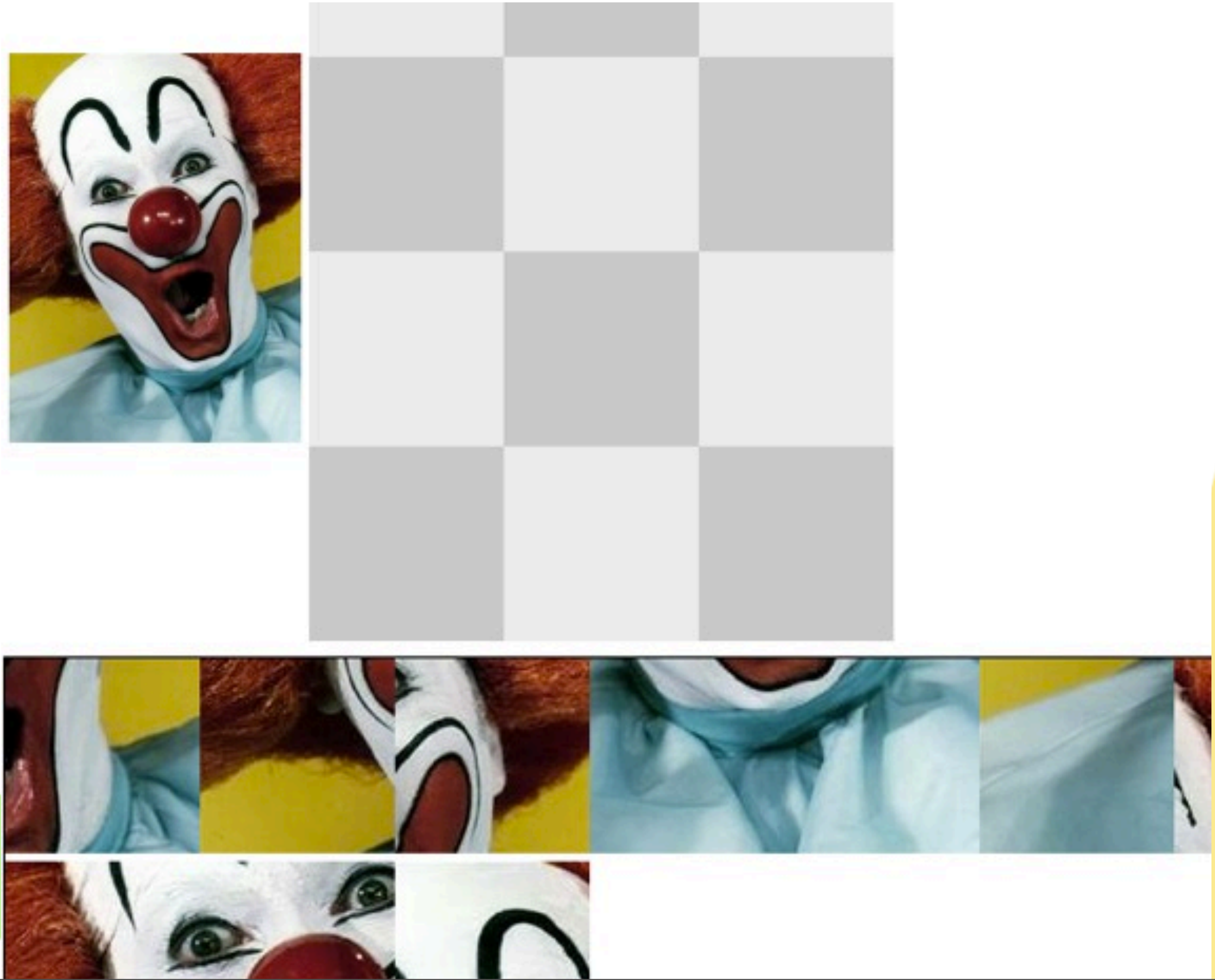
Christopher Schmitt
& Kyle Simpson

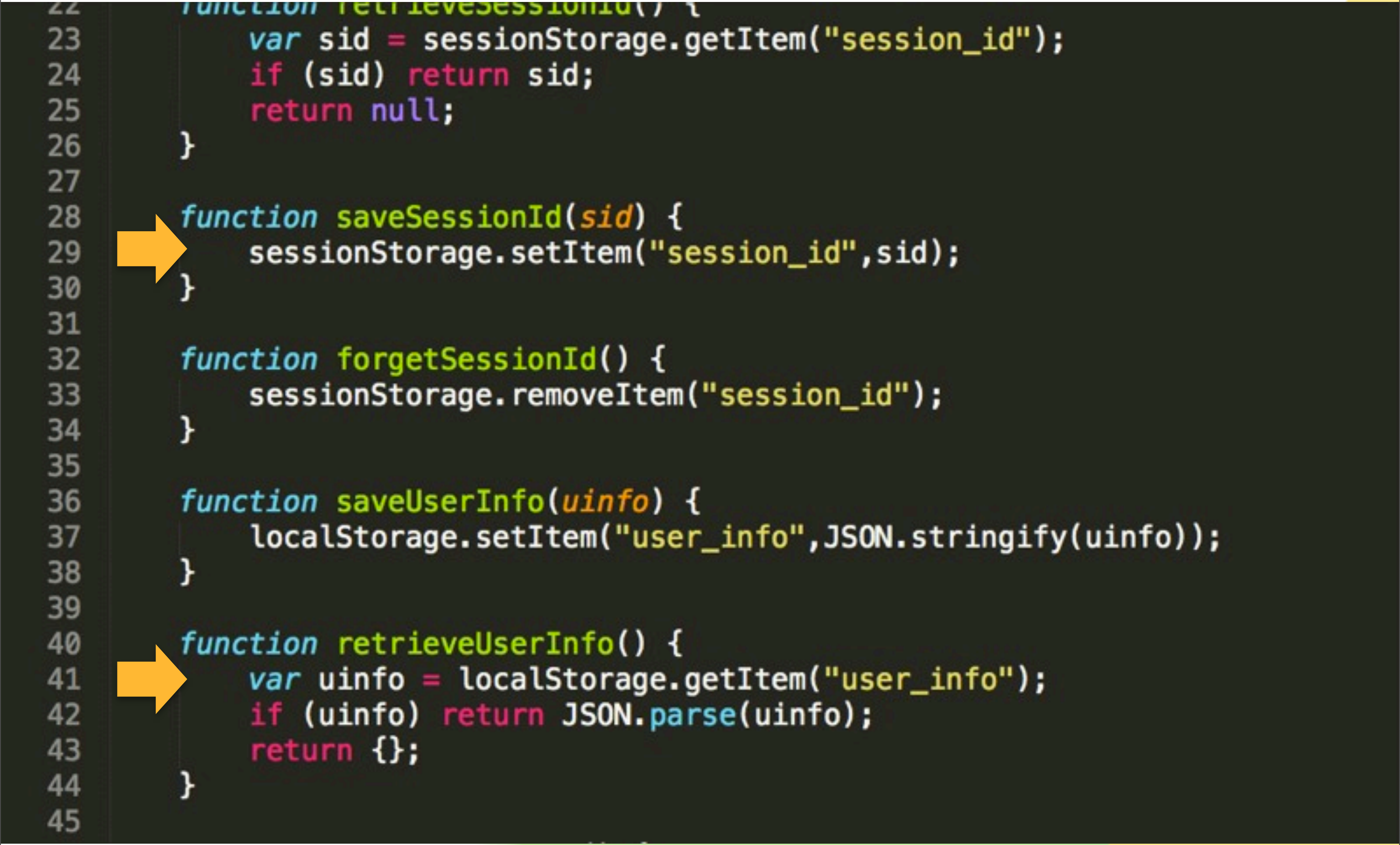
O'Reilly discount code: "AUTHD"

Browser Versions Must Die

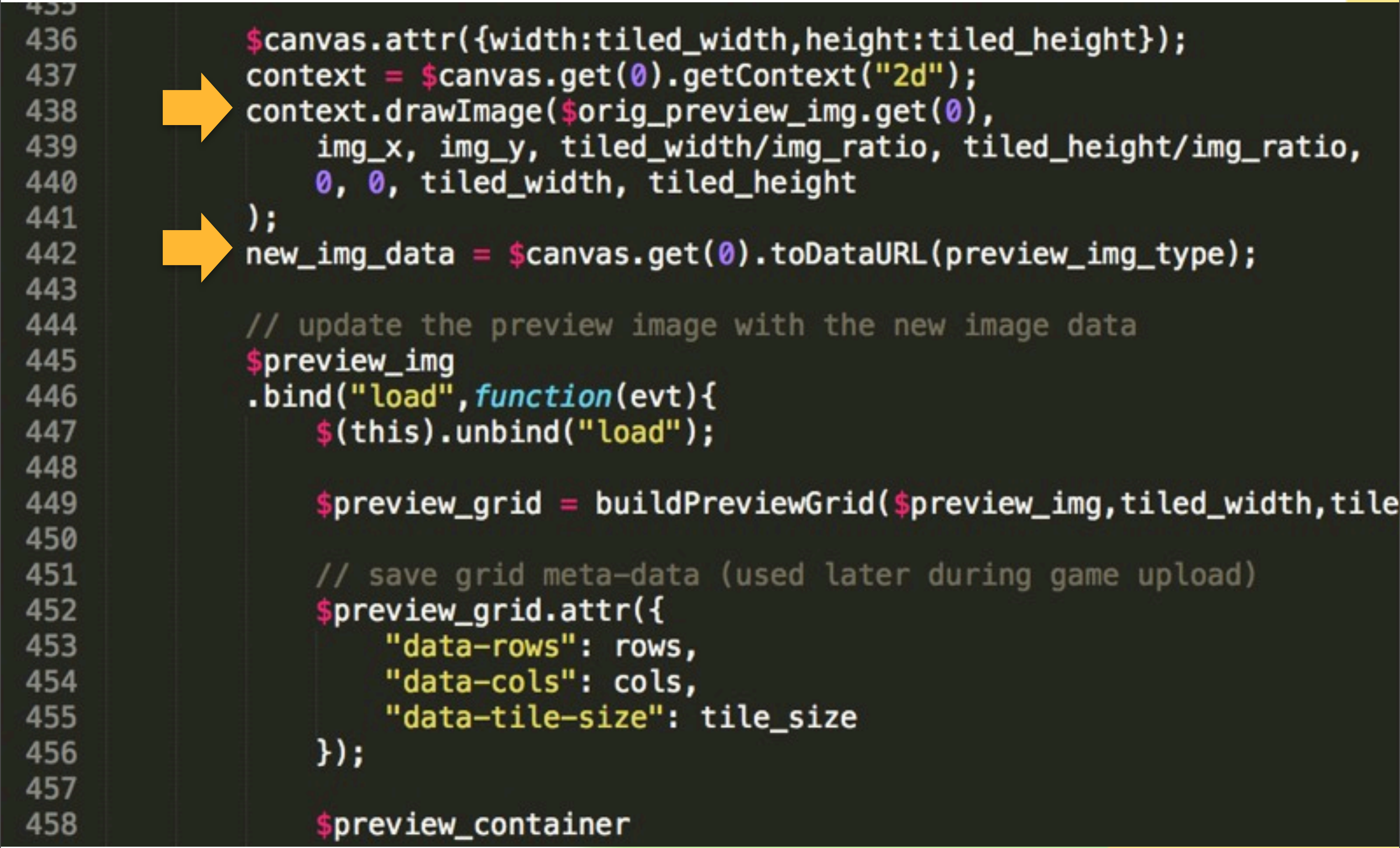
HTML5 & Friends

We Puzzle It!

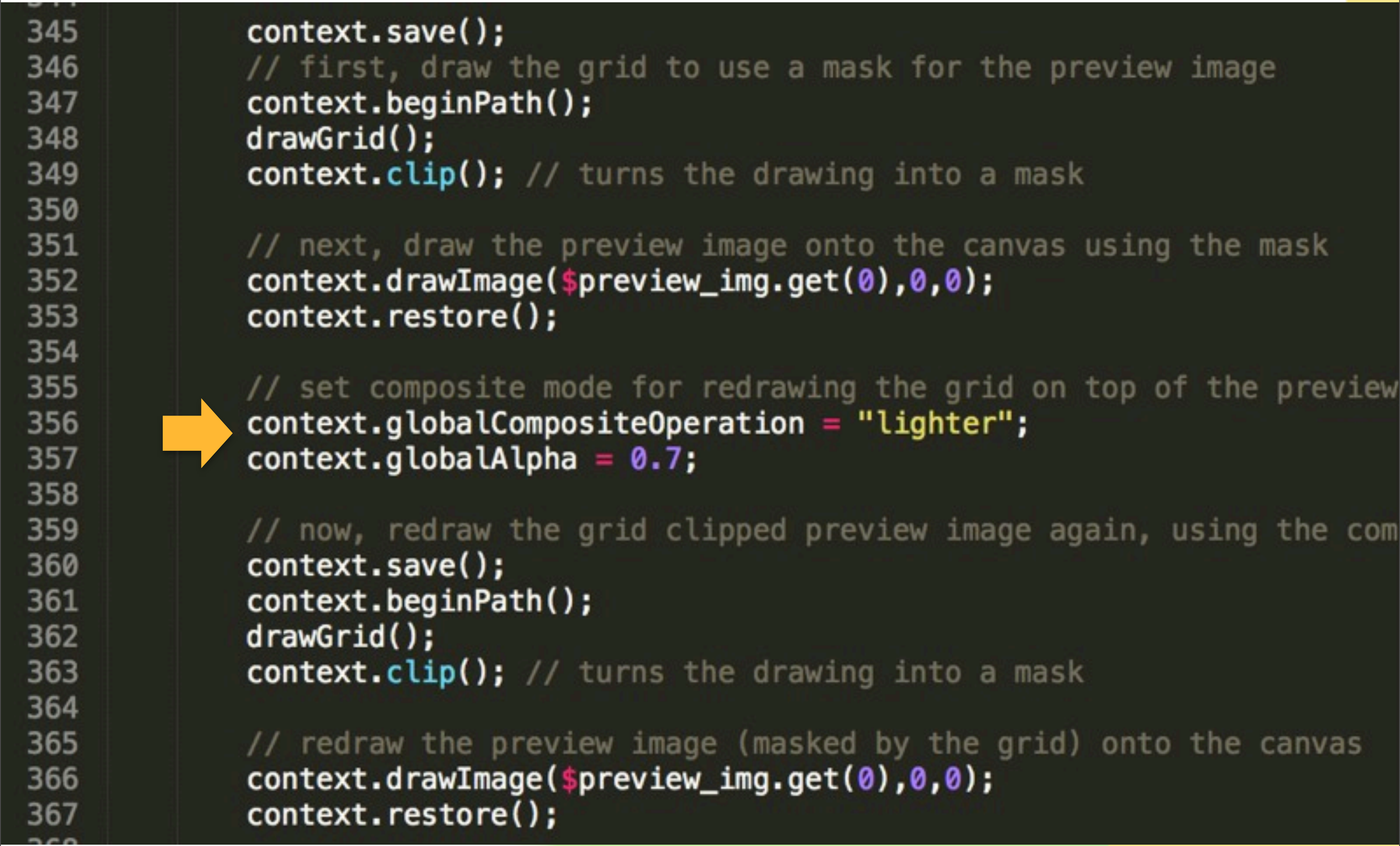




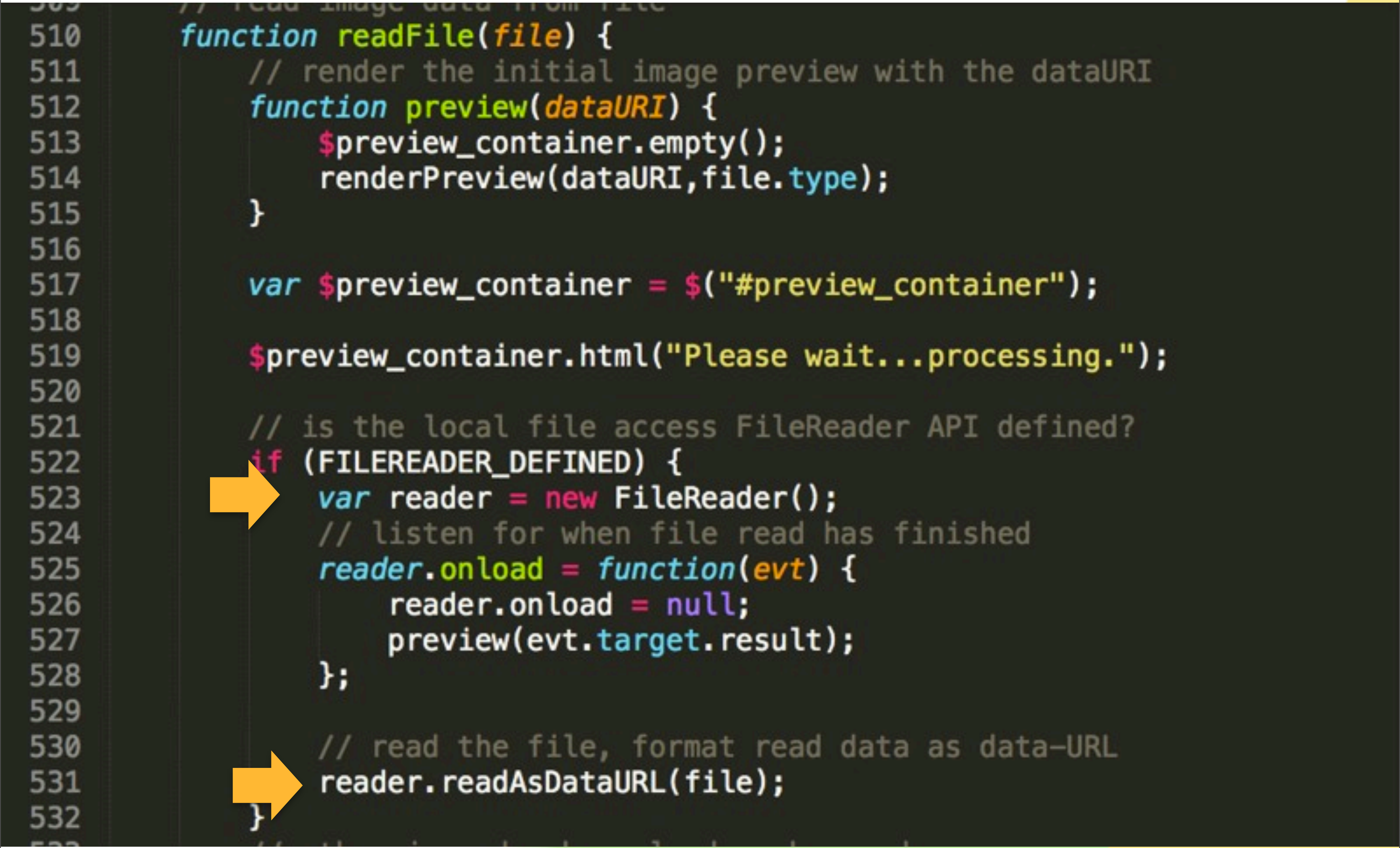
```
    function retrieveSessionId() {
        var sid = sessionStorage.getItem("session_id");
        if (sid) return sid;
        return null;
    }

    function saveSessionId(sid) {
        sessionStorage.setItem("session_id",sid);
    }

    function forgetSessionId() {
        sessionStorage.removeItem("session_id");
    }

    function saveUserInfo(uinfo) {
        localStorage.setItem("user_info",JSON.stringify(uinfo));
    }

    function retrieveUserInfo() {
        var uinfo = localStorage.getItem("user_info");
        if (uinfo) return JSON.parse(uinfo);
        return {};
    }
```



```
        $canvas.attr({width:tiled_width,height:tiled_height});
        context = $canvas.get(0).getContext("2d");
        context.drawImage($orig_preview_img.get(0),
            img_x, img_y, tiled_width/img_ratio, tiled_height/img_ratio,
            0, 0, tiled_width, tiled_height
        );
        new_img_data = $canvas.get(0).toDataURL(preview_img_type);

        // update the preview image with the new image data
        $preview_img
        .bind("load",function(evt){
            $(this).unbind("load");

            $preview_grid = buildPreviewGrid($preview_img,tiled_width,tile

            // save grid meta-data (used later during game upload)
            $preview_grid.attr({
                "data-rows": rows,
                "data-cols": cols,
                "data-tile-size": tile_size
            });

            $preview_container
```



```
        context.save();
        // first, draw the grid to use a mask for the preview image
        context.beginPath();
        drawGrid();
        context.clip(); // turns the drawing into a mask

        // next, draw the preview image onto the canvas using the mask
        context.drawImage($preview_img.get(0),0,0);
        context.restore();

        // set composite mode for redrawing the grid on top of the preview
        context.globalCompositeOperation = "lighter";
        context.globalAlpha = 0.7;

        // now, redraw the grid clipped preview image again, using the com
        context.save();
        context.beginPath();
        drawGrid();
        context.clip(); // turns the drawing into a mask

        // redraw the preview image (masked by the grid) onto the canvas
        context.drawImage($preview_img.get(0),0,0);
        context.restore();
```



```
    // read image data from file
    function readFile(file) {
        // render the initial image preview with the dataURI
        function preview(dataURI) {
            $preview_container.empty();
            renderPreview(dataURI,file.type);
        }

        var $preview_container = $("#preview_container");

        $preview_container.html("Please wait...processing.");

        // is the local file access FileReader API defined?
        if (FILEREADER_DEFINED) {
            var reader = new FileReader();
            // listen for when file read has finished
            reader.onload = function(evt) {
                reader.onload = null;
                preview(evt.target.result);
            };

            // read the file, format read data as data-URL
            reader.readAsDataURL(file);
        }
```

what’s so harmful?

@slicknet

http://guf.geti.fi/html5/js/zakas

~~what’s harmful?~~

specs

“The best thing about standards is that there’s so many to choose from.”

what’s harmful?

bugs

“behavior is as intended” (crocky)

what’s harmful?

prefixes

what-about-vendor-postfixes-webkit

what’s harmful?

progress

71,510,162 seconds left

what’s harmful?

verbosity

overly repetitive and redundant

what’s harmful?

facades

“i’ll write yet-another-another-another-another-another-another framework”

-- every dev, constantly

“framework” design

“Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away.”

-- Antoine de Saint-Exupery

facade design

modular

Gimme everything on the buffet

facade design

light sugar

Where's my super sized soft drink?

facade design

not shims/ polyfills

The 80’s are definitely coming back

80%

Good enough is usually good enough

fix* bugs

Don’t let the bed bugs bite

facade design

smoothe* quirks

“Iced Orange Banango” smoothie flavor

facade design

conceptuals

“disconceptualizations”

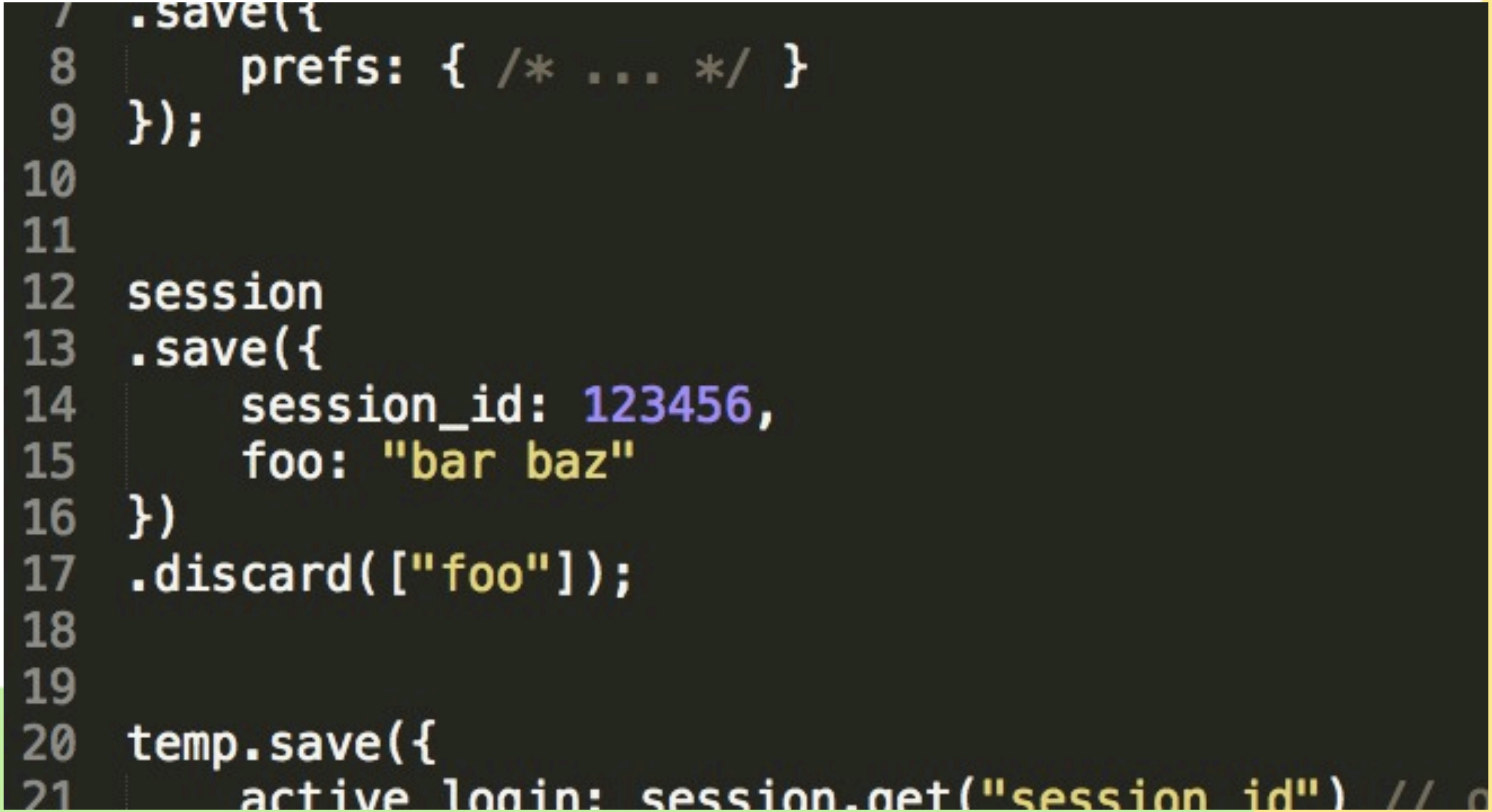
facade design

ready yet?

code for today

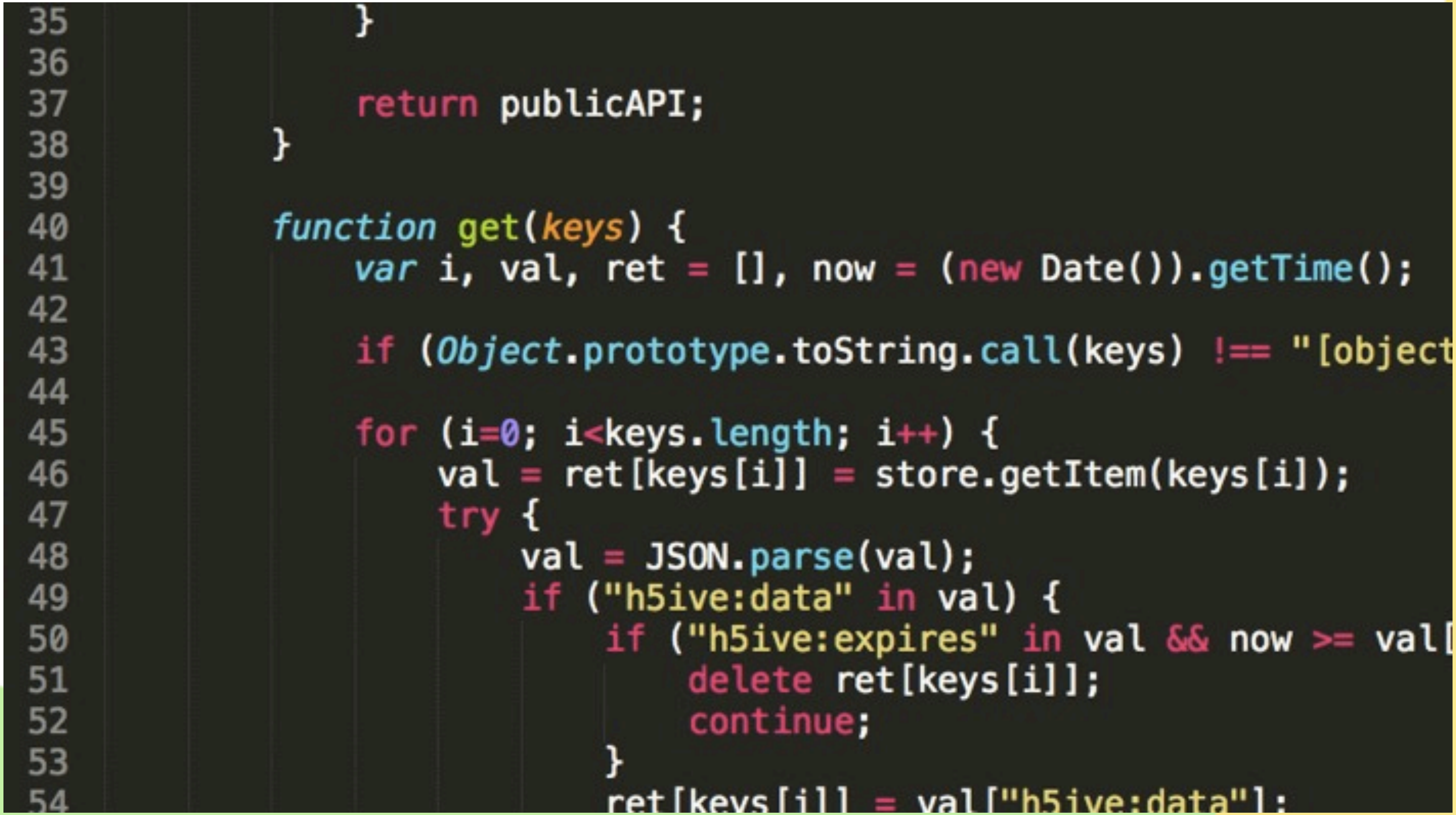
http://h5ive.com

storage



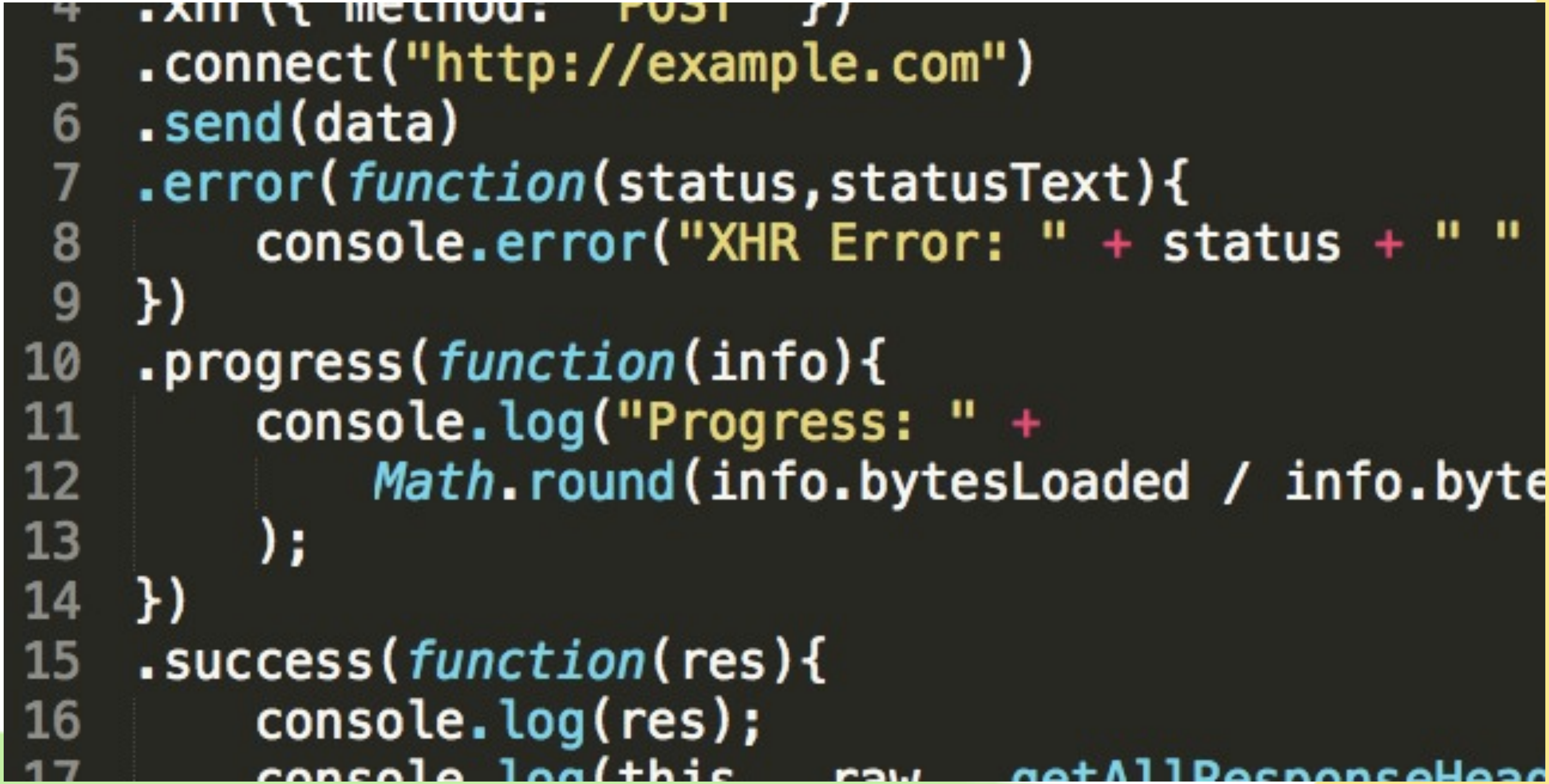
```
.save({
    prefs: { /* ... */ }
});


session
.save({
    session_id: 123456,
    foo: "bar baz"
})
.discard(["foo"]);


temp.save({
    active_login: session.get("session_id") //
```

storage



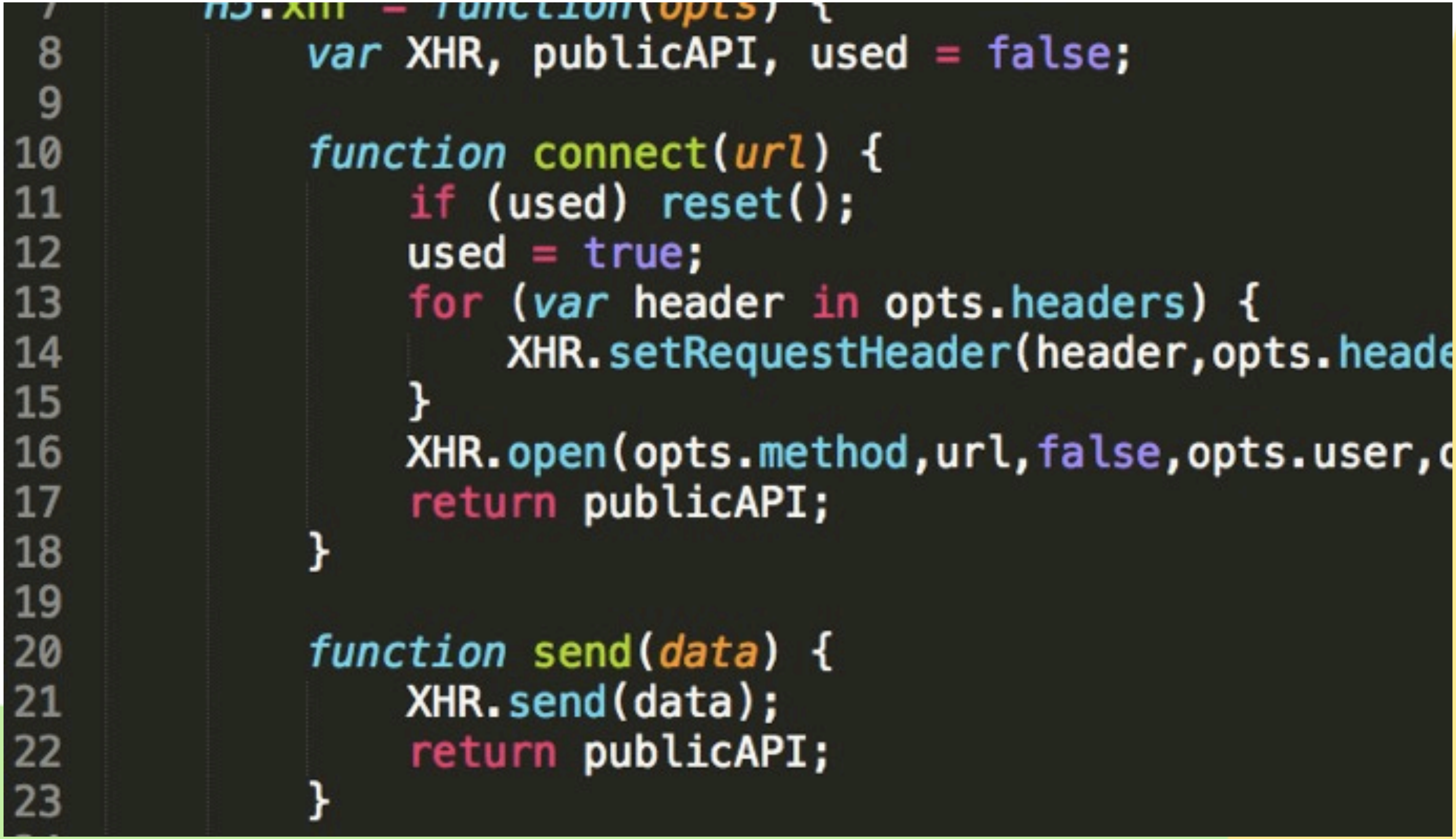
```
            }

            return publicAPI;
        }

        function get(keys) {
            var i, val, ret = [], now = (new Date()).getTime();

            if (Object.prototype.toString.call(keys) !== "[object

            for (i=0; i<keys.length; i++) {
                val = ret[keys[i]] = store.getItem(keys[i]);
                try {
                    val = JSON.parse(val);
                    if ("h5ive:data" in val) {
                        if ("h5ive:expires" in val && now >= val[
                            delete ret[keys[i]];
                            continue;
                        }
                        ret[keys[i]] = val["h5ive:data"];
```

xhr



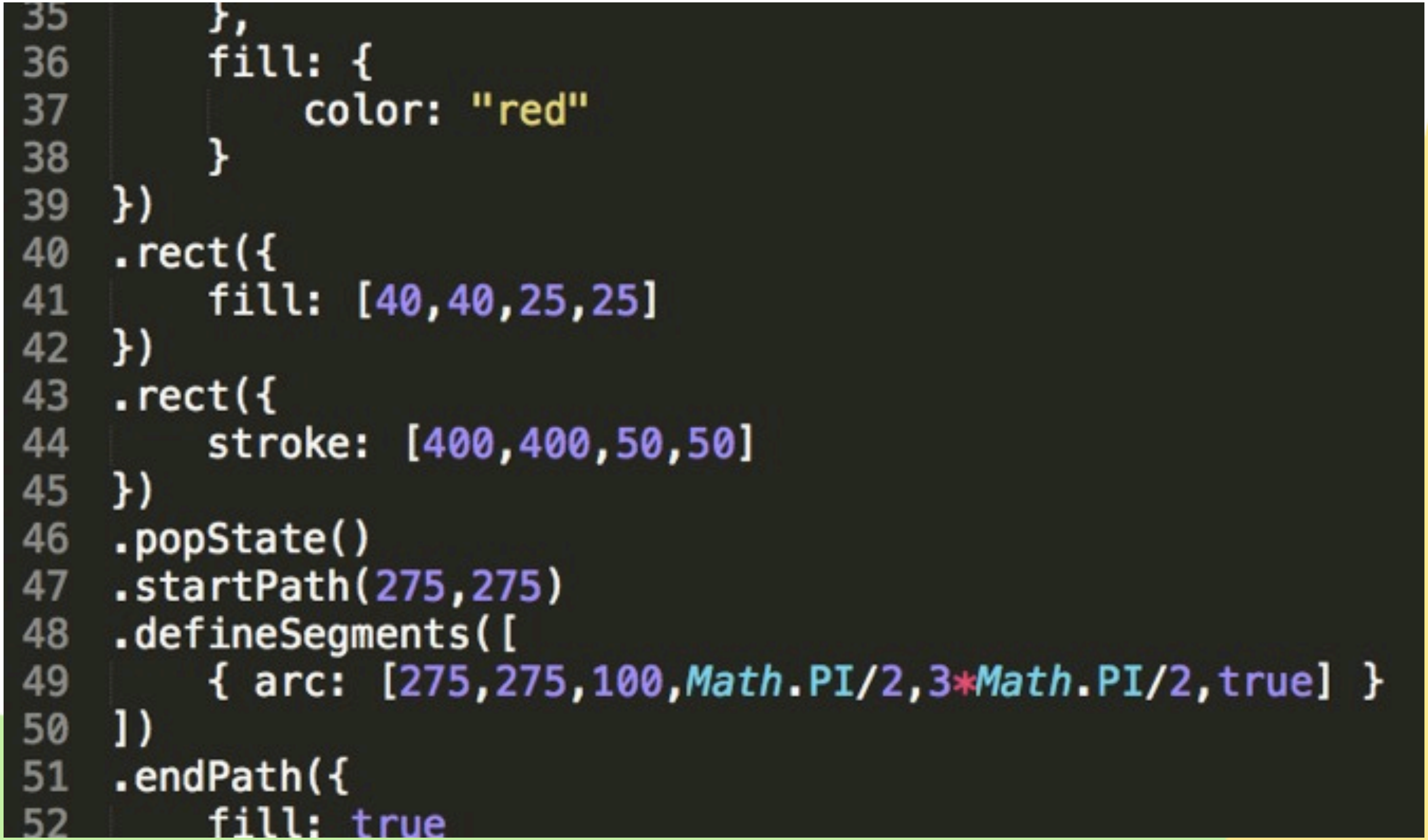
```
.xhr({ method: "POST" })
.connect("http://example.com")
.send(data)
.error(function(status,statusText){
    console.error("XHR Error: " + status + " "
})
.progress(function(info){
    console.log("Progress: " +
        Math.round(info.bytesLoaded / info.byte
    );
})
.success(function(res){
    console.log(res);
    console.log(this.__raw__.getAllResponseHead
```

xhr



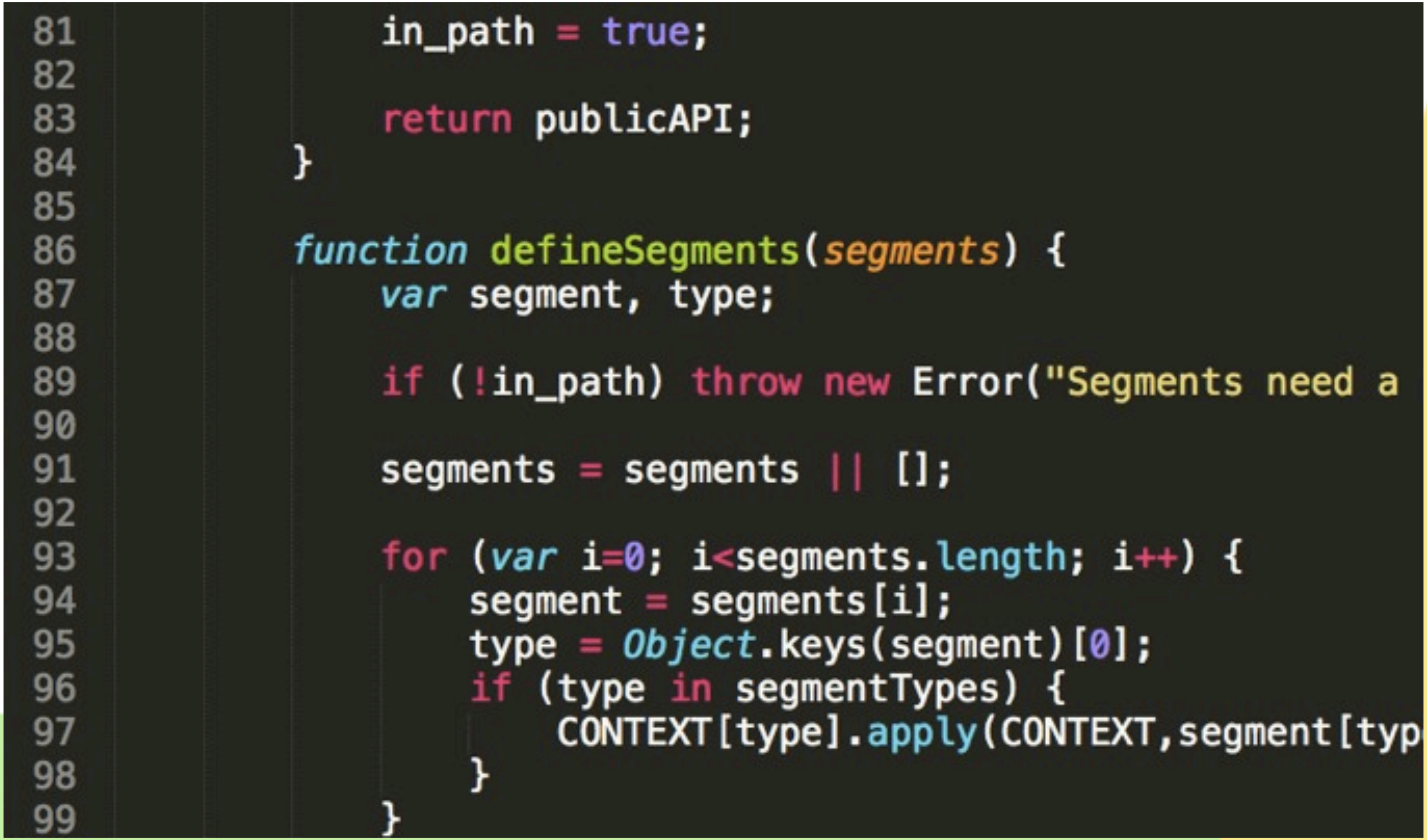
```
H5.xhr = function(opts) {
    var XHR, publicAPI, used = false;

    function connect(url) {
        if (used) reset();
        used = true;
        for (var header in opts.headers) {
            XHR.setRequestHeader(header,opts.heade
        }
        XHR.open(opts.method,url,false,opts.user,c
        return publicAPI;
    }

    function send(data) {
        XHR.send(data);
        return publicAPI;
    }
```

<canvas>



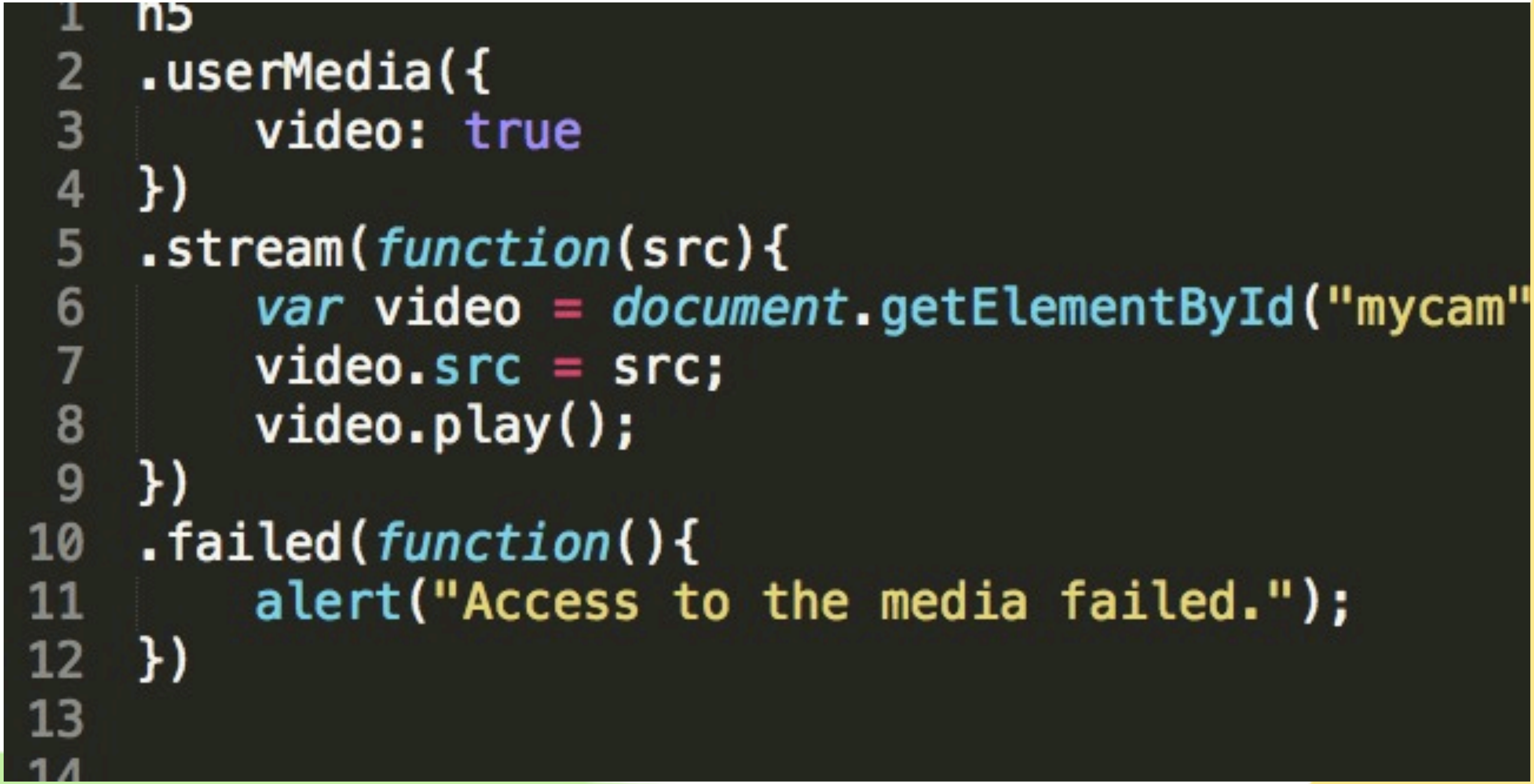
```
    },
    fill: {
        color: "red"
    }
})
.rect({
    fill: [40,40,25,25]
})
.rect({
    stroke: [400,400,50,50]
})
.popState()
.startPath(275,275)
.defineSegments([
    { arc: [275,275,100,Math.PI/2,3*Math.PI/2,true] }
])
.endPath({
    fill: true
```

<canvas>



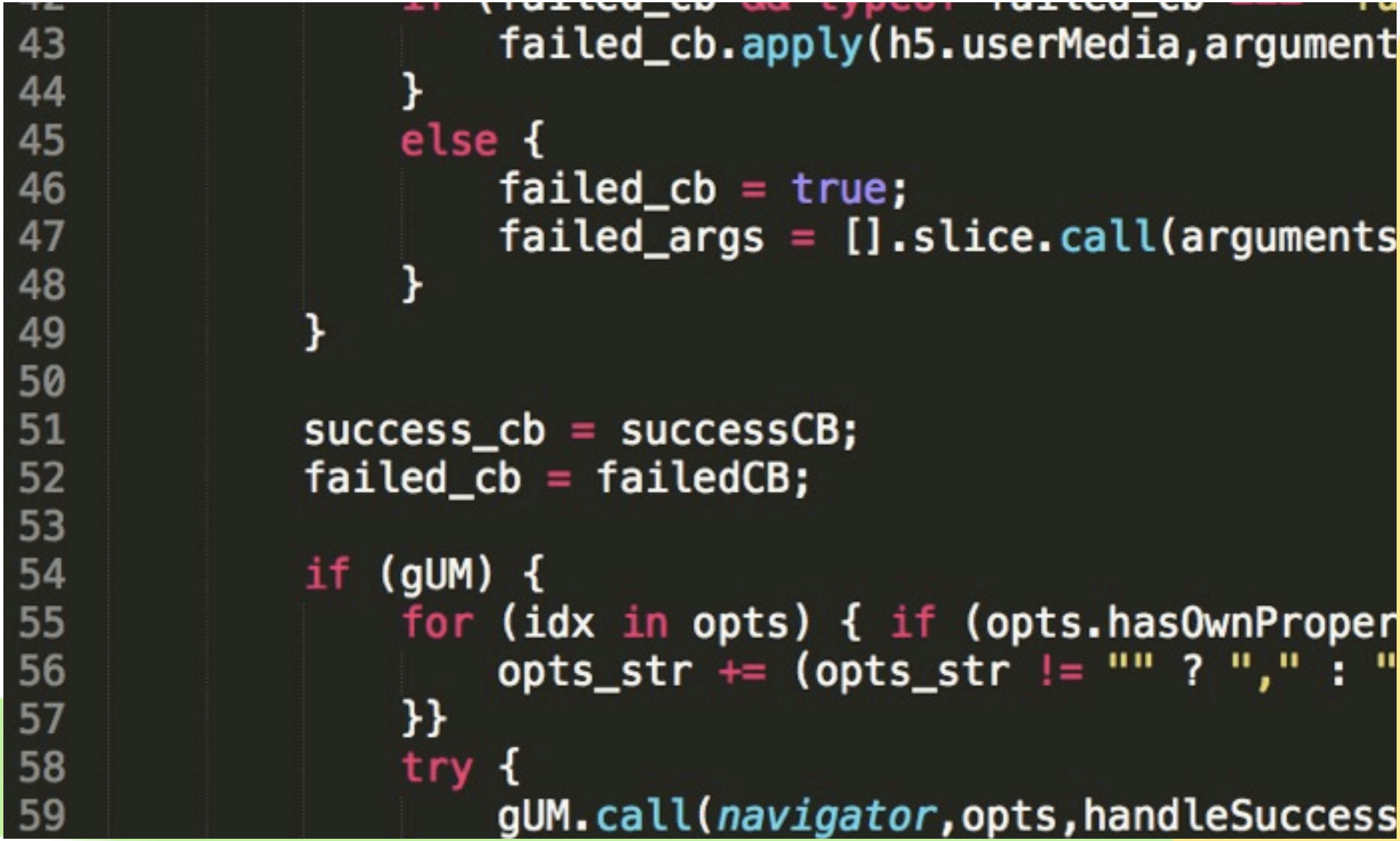
```
            in_path = true;

            return publicAPI;
        }

        function defineSegments(segments) {
            var segment, type;

            if (!in_path) throw new Error("Segments need a

            segments = segments || [];

            for (var i=0; i<segments.length; i++) {
                segment = segments[i];
                type = Object.keys(segment)[0];
                if (type in segmentTypes) {
                    CONTEXT[type].apply(CONTEXT,segment[typ
                }
            }
```

getUserMedia



```
h5
.userMedia({
      video: true
})
.stream(function(src){
      var video = document.getElementById("mycam"
      video.src = src;
      video.play();
})
.failed(function(){
      alert("Access to the media failed.");
})
```

getUserMedia



```
        if (failed_cb && typeof failed_cb === "fu
            failed_cb.apply(h5.userMedia,argument
        }
        else {
            failed_cb = true;
            failed_args = [].slice.call(arguments
        }
    }

    success_cb = successCB;
    failed_cb = failedCB;

    if (gUM) {
        for (idx in opts) { if (opts.hasOwnProper
            opts_str += (opts_str != "" ? "," : "
        }}
        try {
            gUM.call(navigator,opts,handleSuccess
```

History
Web Workers
Web Socket
Geolocation
<audio> / <video>
File / FileSystem
PeerConnection/WebRTC

Web DBs
BlobBuilder
Blob URL
FormData
Device APIs
Server-Sent Events
appCache
…

what's left?

Thanks!!

Questions?

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@getify