

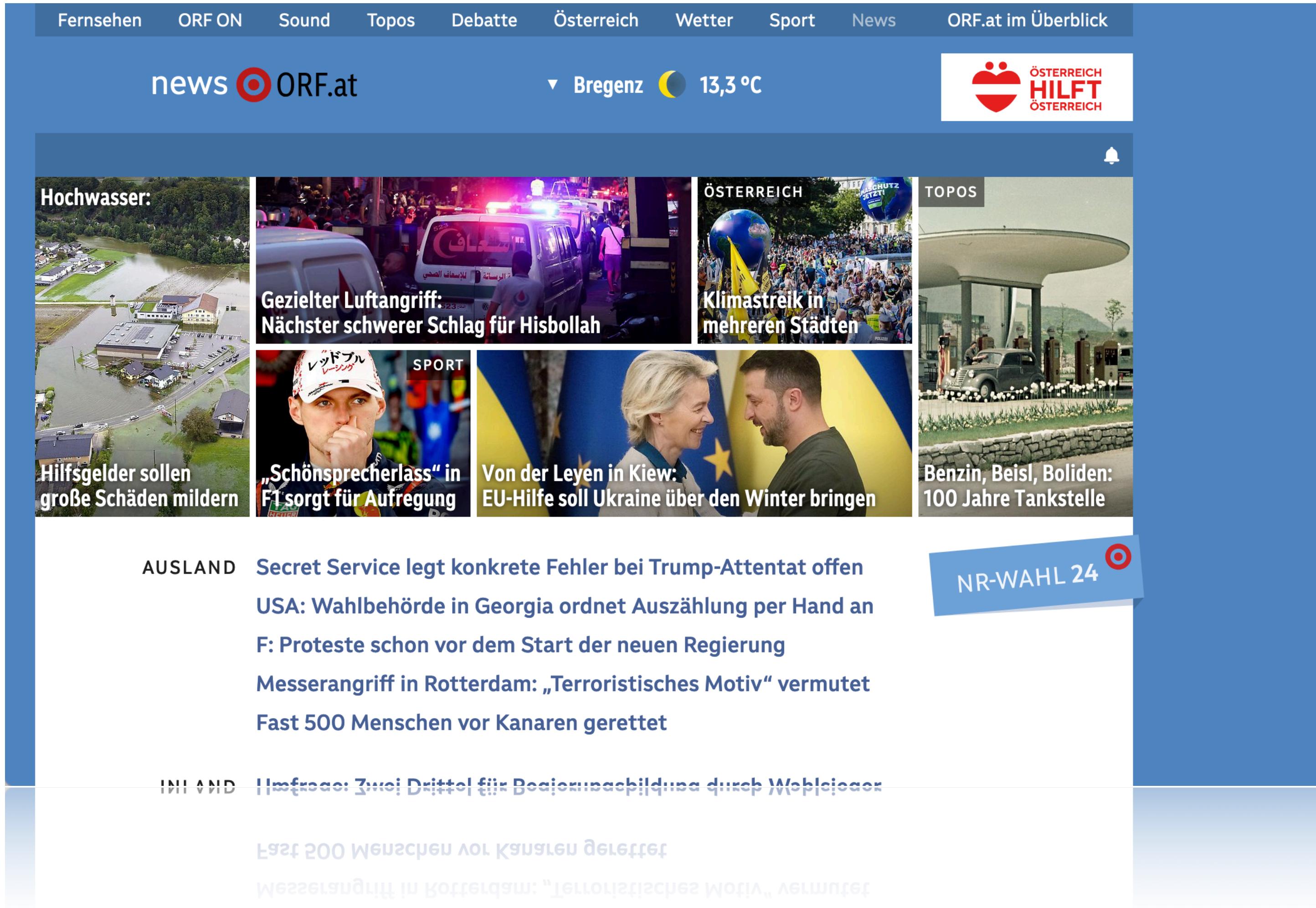
minimalism, or: how i joined the 1kb.club

martin sereinig

so what's 1kB again

- 1kB:
 - 1000 bytes
 - »kilobyte«
 - 1KiB
 - 1024 bytes
 - »kibibyte«
 - formerly 1KB: as in 64K cache

websites nowadays are huuuuuuuge



- **html: 77.91 kB**
- **everything:**
 - **55 requests**
 - **3.27 MB**

websites nowadays are huuuuuuuge

The screenshot shows the homepage of DER STANDARD. At the top, there's a navigation bar with links for 'Unterstützung', 'Abo', 'Immosuche', 'Jobsuche', and 'Anmelden'. Below the navigation, the date 'Fr, 20.9.2024' and a 'Wahl 24' section are visible. The main content area features several news cards:

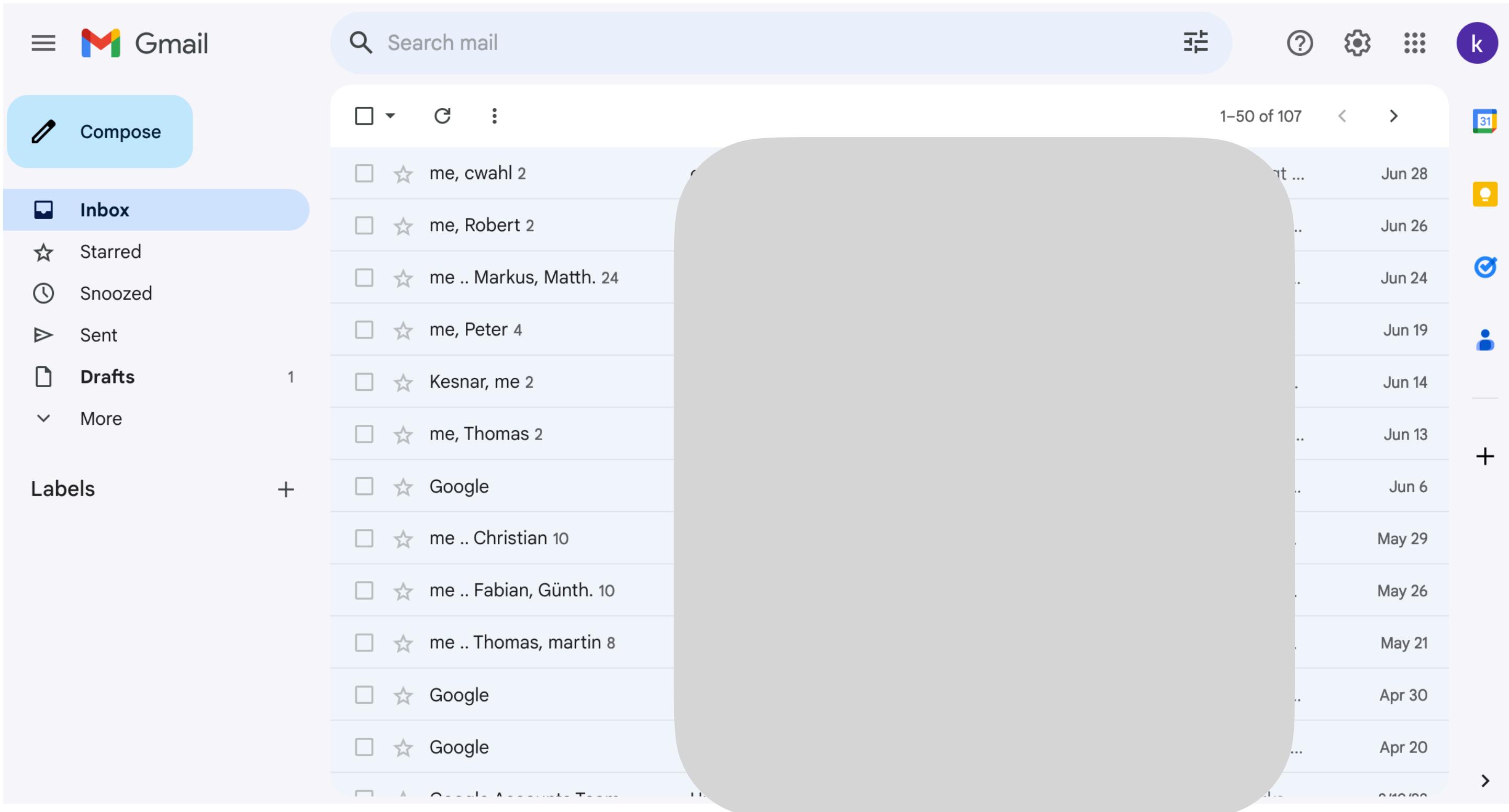
- Graz besiegt Caps beim ICE-Auftakt, KAC schlägt Salzburg** (vor 2 Minuten)
- Im TV-Duell: Babler bezeichnet Kickls FPÖ als "zentrale Gefährdung der Demokratie" in Österreich** (vor 30 Minuten)
- Danso muss weiter pausieren: Bericht über Herz-Eingriff** (vor 50 Minuten)
- Siege für Kapfenberg, Vienna, Bregenz und St. Pölten in der zweiten Liga** (20:50)

Below these cards, there's a large video thumbnail for 'Wahl 24' featuring two people at a podium. To the right of the video, there are more news items:

- KLIMAPOLITIK** □ 856
"Mein Freund Harald": FPÖ ebnete Klimaleugner-Lobby den Weg ins EU-Parlament (16:29)
- LIBANON** □ 109
Hisbollah-Kommandant offenbar bei israelischem Luftangriff in Beirut getötet (19:10)
- MOBILITÄT** □ 617
Der überraschende Grund, der überraschende Grund (19:10)

- **html: 419.57 kB**
- **everything:**
 - **105 requests**
 - **4.41 MB**

websites nowadays are huuuuuuge



- **html: 922.15 kB**
- **everything:**
 - **229 requests**
 - **17.97 MB**

more: <https://tonsky.me/blog/js-bloat/>

there's some good surprises. read it!

introducing: 1kb.club

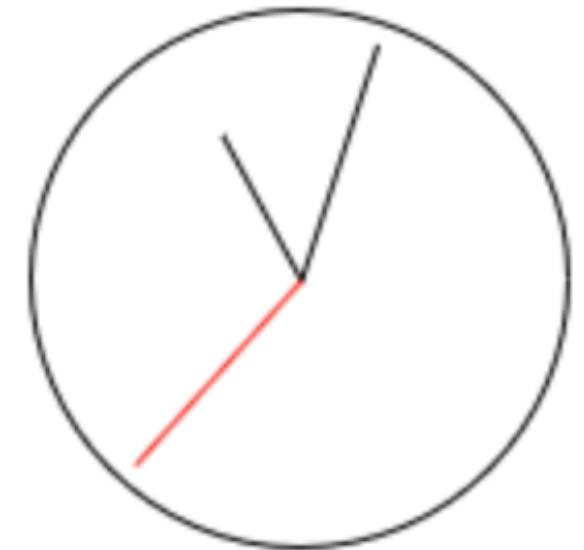
1kb.club

1kB Club is a list of web pages weighing less than 1 kilobyte (1,024 bytes).

Members ([Submit](#))

- can be found at [1kb.club](#)
- pages that weigh 1kB or less
- let's not get into kibi nonsense. website says 1024byte

URL	Size in bytes
cenzontle.us	252
cv.btxx.org	474
1kb.lingdocs.com	500
pussthecat.org/1	565
ultralite.sharavananpa.dev	620
hi.gy	622
1k.lom.me	628
t0.vc	659
myr.sh	685
1k.ekallevig.com	697
1kb.club/submit	699
ephemerae.xyz	707
1k.gumx.cc	750
tightwad.neocities.org	750



about

$$669 + 346 = 1015$$

S... Me... Dom... File Initiator T... Transf... Si: Headers Cookies Request Response Timings Security

200 GET hi.... / docu... h... 1.02 kB 66 Filter Headers Block Resend

▶ GET https://hi.veryunited.net/

Status	200
Version	HTTP/2
Transferred	1.02 kB (669 B size)
Request Priority	Highest
DNS Resolution	System
Response Headers (346 B)	
content-length: 669	
content-type: text/html; charset=utf-8	
date: Fri, 20 Sep 2024 19:08:54 GMT	
server: AmazonS3	
via: 1.1 581ced6577fa2054087db3aa564e1b58.cloudfront.net (CloudFront)	
x-amz-cf-id: xhvJ__yxSyr5aNBQn9IF2CTxMqKMIvezFS1Qw0FGErzQJyb9dmbAig==	
x-amz-cf-pop: VIE50-P2	
x-cache: Hit from cloudfront	
X-Firefox-Spdy: h2	

Raw

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for <https://hi.veryunited.net/>

Checker Input

Show source outline image report [Options...](#)

Check by [address](#) [link](#) [file](#)

<https://hi.veryunited.net/>

[Check](#)

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

1. **Warning** Consider adding a `lang` attribute to the `html` start tag to declare the language of this document.

From line 1, column 16; to line 1, column 42

`type html><link href=data:, rel=icon><title`

For further guidance, consult [Declaring the overall language of a page](#) and [Choosing language tags](#).

If the HTML checker has misidentified the language of this document, please [file an issue report](#) or [send e-mail to report the problem](#).

implementation

implementation

- serverless! i don't want to admin a server
 - »i don't want to pay 5 euros a month for a website nobody visits«
 - it should be free
 - development & deployment tooling should be 
- what now?
 - AWS?
 - Github Pages?
 - something similar

headers nowadays are huuuuuuuge

- github pages: ~750 bytes (non negotiable)
- cloudfront: ~800 bytes
- variable: some values might change
- what now?
 - remove everything that's possible
 - ~350 bytes
 - 35% of my request are just worthless headers



html + js

1329 bytes

```
1  <!DOCTYPE html>
2  <link rel="icon" href="data:,">
3  <title>very·united</title>
4  <canvas width="150"></canvas><br>
5  <a href="1kb.html">about</a>
6  <script>
7    function d() {
8      var ctx = document.querySelector("canvas").getContext?("2d")
9      if (ctx) {
10        var now = new Date();
11
12        // Clear the canvas
13        ctx.clearRect(0, 0, 150, 150);
14        ctx.beginPath();
15        ctx.arc(75, 75, 65, 0, Math.PI * 2);
16        ctx.strokeStyle = '#000';
17        ctx.stroke();
18
19        // Hours
20        var hour = now.getHours();
21        var minute = now.getMinutes();
22        var second = now.getSeconds();
23
24        // Convert time to angles in radians
25        var hourAngle = ((hour % 12) * 30 + (minute / 2));
26        var minuteAngle = minute * 6;
27        var secondAngle = second * 6;
28
29        for (var hand of [[40, hourAngle, '#000'], [60, minuteAngle, '#000'], [60, secondAngle, 'red']]) {
30          var angle = hand[1] * (Math.PI / 180) - Math.PI / 2;
31          ctx.beginPath();
32          ctx.moveTo(75, 75);
33          ctx.lineTo(75 + hand[0] * Math.cos(angle), 75 + hand[0] * Math.sin(angle));
34          ctx.strokeStyle = hand[2];
35          ctx.stroke();
36        }
37      }
38    }
39    setInterval(d, 9);
40 </script>
```

minification

- <https://github.com/wilsonzlin/minify-html>
 - written in rust & superfast
 - available for many languages
 - almost no dependencies (none in python)
 - play around with settings to also make it w3c compatible

MINIFY ALL THE HTML



```
1 <!doctype html><link href=data:, rel=icon><title>very·united</title><canvas  
· width=150></canvas><br><a href=1kb.html>about</a><script>var d=(( )=>{let  
· k=0,m=75,l=150,o=2,r=60,p=`#000`,q=6,s=Math,n=Math.PI;var  
· a=document.querySelector(`canvas`).getContext?(`2d`);if(a){var b=new  
Date();a.clearRect(k,k,l,l);a.beginPath();a.arc(m,m,65,k,n*o);a.strokeStyle=p;astro  
ke();var c=b.getHours();var d=b.getMinutes();var e=b.getSeconds();var f=(c%12)*30+  
d/o;var g=d*q;var h=e*q;for(var i of [[40,f,p],[r,g,p],[r,h,'red']]){var  
j=i[1]*(n/180)- n/o;a.beginPath();a.moveTo(m,m);a.lineTo(m+ i[k]*s.cos(j),m+  
i[k]*s.sin(j));a.strokeStyle=i[o];a.stroke()}}});setInterval(d,9)</script>
```

1329 bytes → 669 bytes

lessons learned

lessons learned

- the internet nowadays is very bloated
 - transferring huge amounts of data
 - gmail needs 13 floppy disks
- coding within narrow constraints is fun
 - and you can always learn something
 - you never know when you »useless knowledge« suddenly becomes valueable
- maaaaybe, just maybe, we don't need all that bloat 🤔



let's check out some cool 1kb pages