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HALFSTACK ON THE THAMES LONDON, 2022



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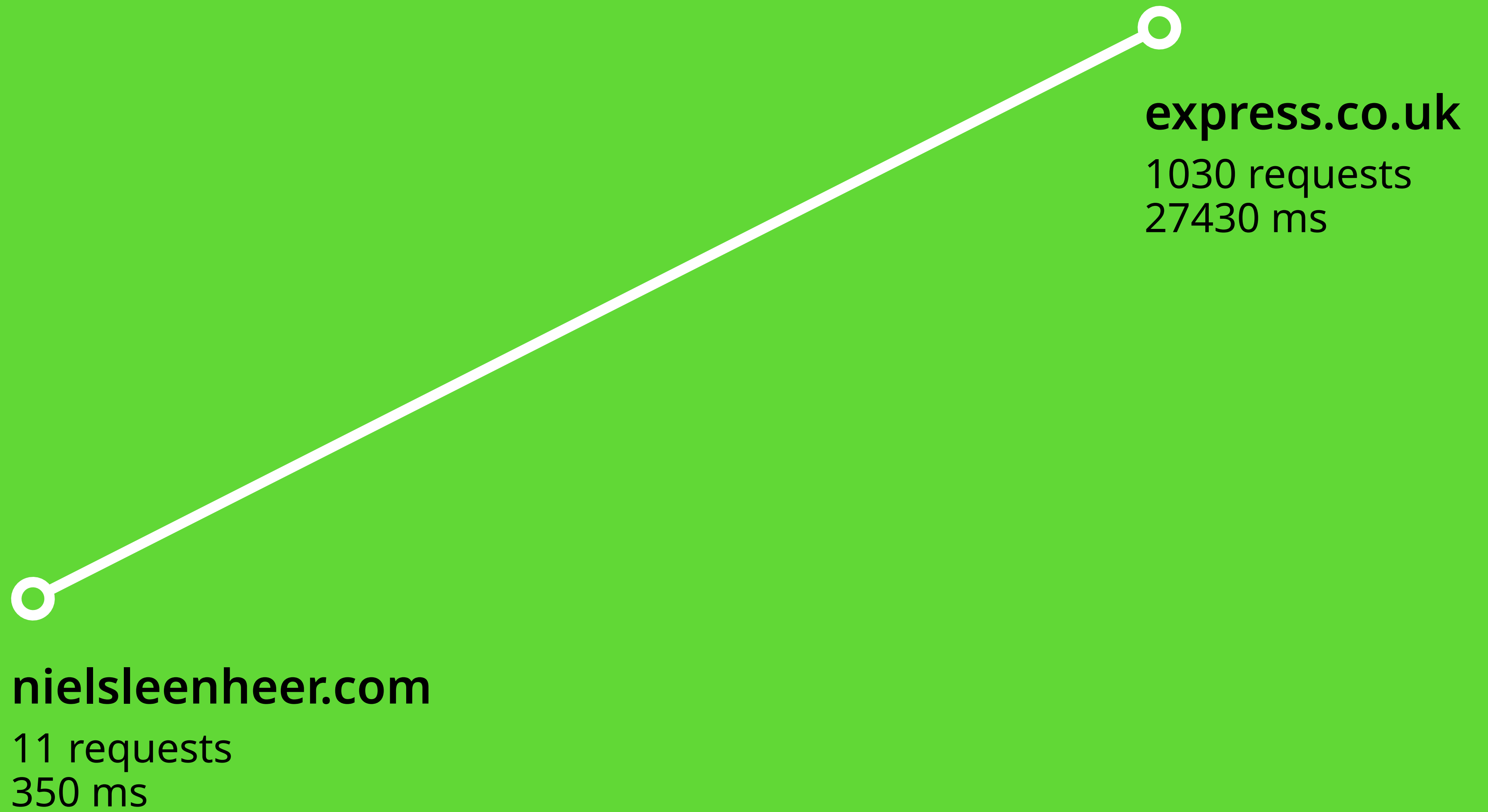
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HALFSTACK ON THE THAMES LONDON, 2022

**how to
determine
what to
optimise**





**websites that
make more requests
are slower**



**external images
require requests**



conclusion

**we can make a
website faster by
inlining images**





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HALFSTACK ON THE THAMES LONDON, 2022



150

240

TICKETS SCHEDULE SPONSORSHIP FAQs



HALFSTACK ON
THE THAMES
LONDON, 2022



how to inline images



**an image is
just a grid of
coloured pixels**



tables are grids



conclusion

**we can inline
images using tables**

attempt #1

table with
images

```
<table>
  <tr>
    <td>...</td> × 144.000
  </tr>
</table>
```

attempt #1

table with
images

```
<table>
  <tr>
    <td></td> × 144.000
  </tr>
</table>
```

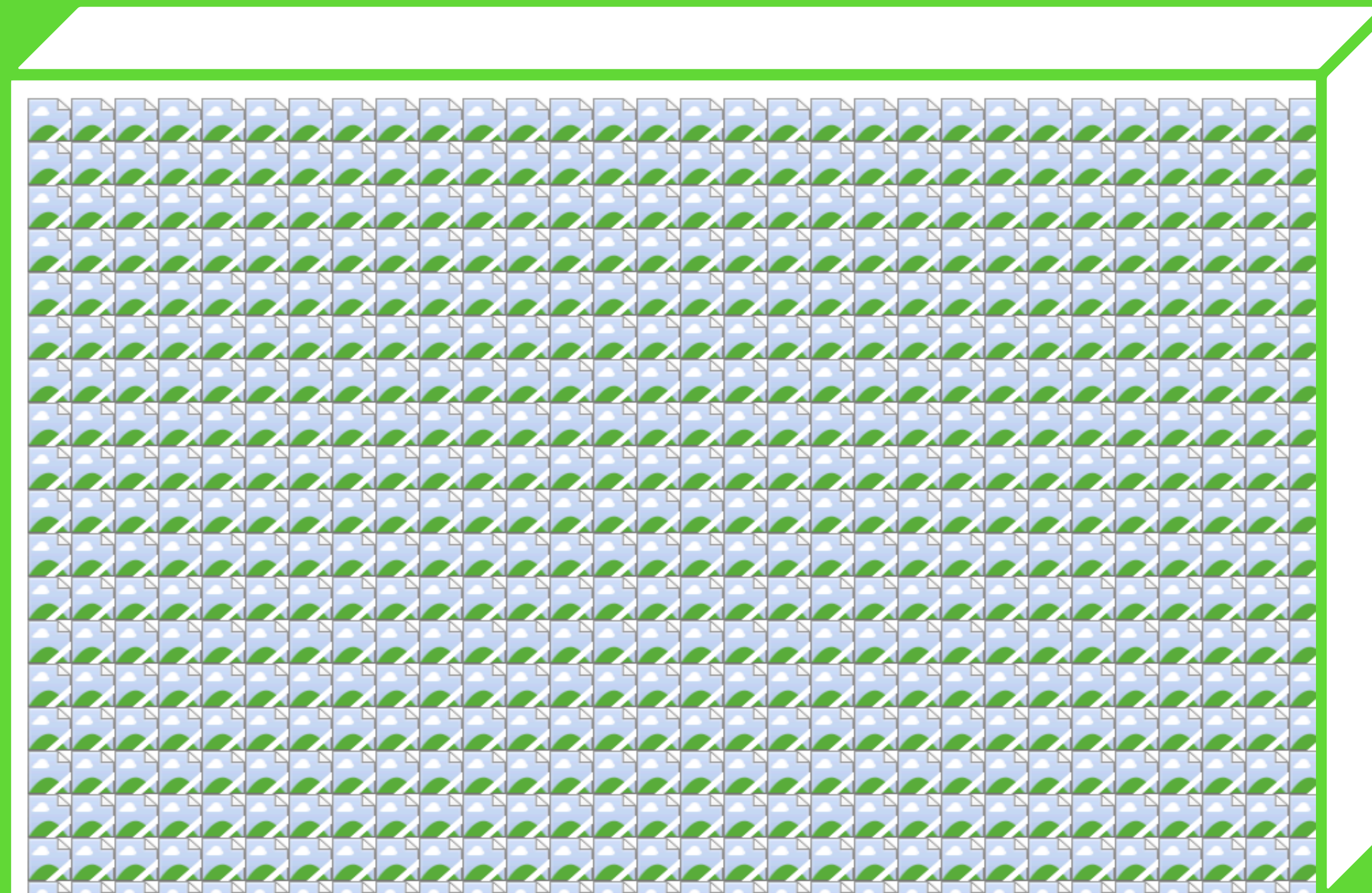

attempt #1

table with
images

size
4.9 MB

requests
2612

loaded
18 sec



attempt #2

table with
spacer image

```
<table>
  <tr>
    <td style="background-color:#C53631"> × 144.000
      
    </td>
  </tr>
</table>
```

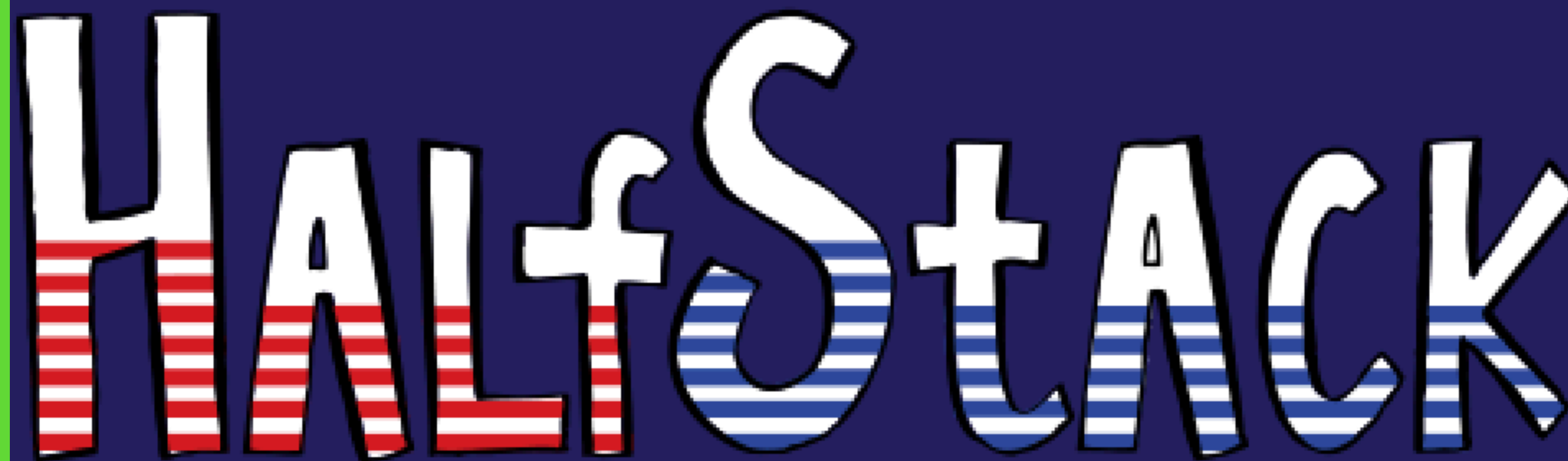

attempt #2

table with
spacer image

size
7.1 MB

requests
1

loaded
9 sec

The logo for 'HALFSTACK' is displayed in a stylized, bold font. The letters are white with a thick black outline. The bottom portion of each letter is filled with horizontal stripes. The letters 'H', 'A', 'L', and 'T' have red and white stripes, while 'S', 'T', 'A', and 'C' have blue and white stripes. The letter 'K' has blue and white stripes. The logo is set against a dark blue background.

HALFSTACK

attempt #3

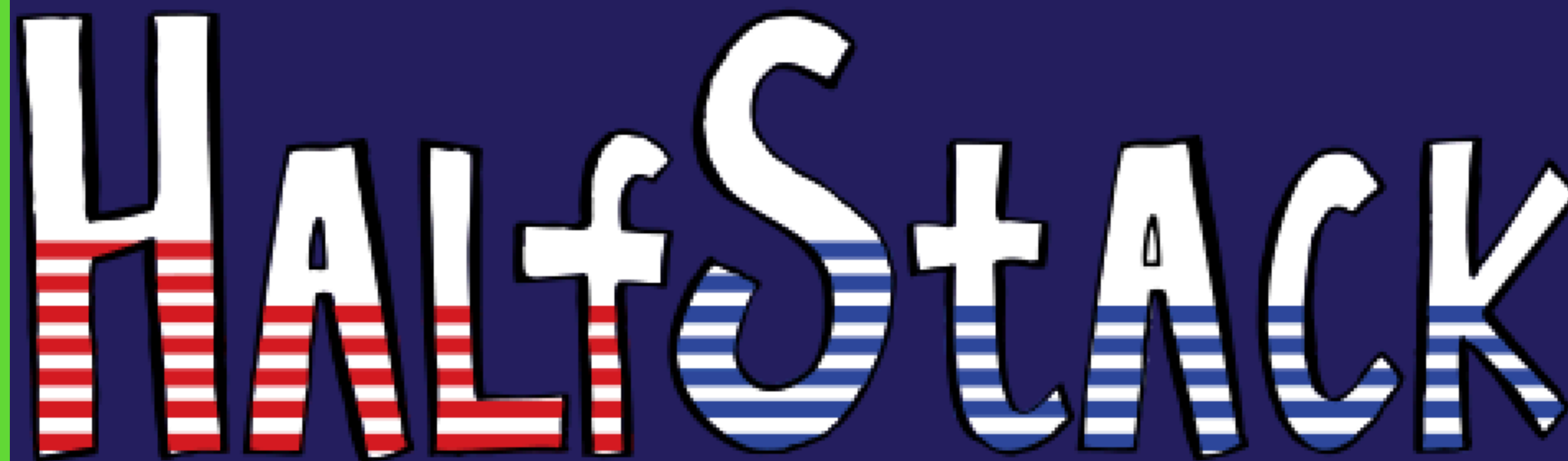
table with
data urls

```
<table>
  <tr>
    <td style="background-color:#C53631">
      
    </td>
  </tr>
</table>
```

attempt #3

table with
data urls

size
18 MB
requests
0
loaded
13 sec

The logo for 'HALFSTACK' is displayed in a stylized, bold font. The letters are white with a thick black outline. The bottom portion of each letter is filled with horizontal stripes. The 'HALF' part of the logo uses red and white stripes, while the 'STACK' part uses blue and white stripes. The logo is set against a dark blue rectangular background.

HALFSTACK

attempt #4

table with
width and
height

```
<table>
  <tr>
    <td height=1 width=1 bgcolor=#C53631></td> × 144.000
  </tr>
</table>
```

attempt #4

table with
width and
height

size
6.3 MB

requests
0

loaded
3 sec

The logo for 'HALFSTACK' is displayed in a stylized, bold font. The letters are white with a thick black outline. The bottom portion of each letter is filled with horizontal stripes. The 'HALF' part of the logo has red and white stripes, while the 'STACK' part has blue and white stripes. The logo is set against a dark blue background.

HALFSTACK

how to optimise rendering



parallelisation
improves
performance



frames render
independently
from each other



conclusion

**we can inline
images using frames**



conclusion

**we can inline
images using frames**

attempt #5

frames

```
<iframe src="...">
```

```
<frameset rows="...">
```

```
  <frameset cols="...">
```

```
    <frame src="C53631.html"> × 144.000
```

```
  </frameset>
```

```
</frameset>
```

attempt #5

frames

```
<iframe src="...">
```

```
<frameset rows="...">
```

```
  <frameset cols="...">
```

```
    <frame src="data:text/html;base64,R0lGODlhAQABAIA">
```

× 144.00

```
  </frameset>
```

```
</frameset>
```

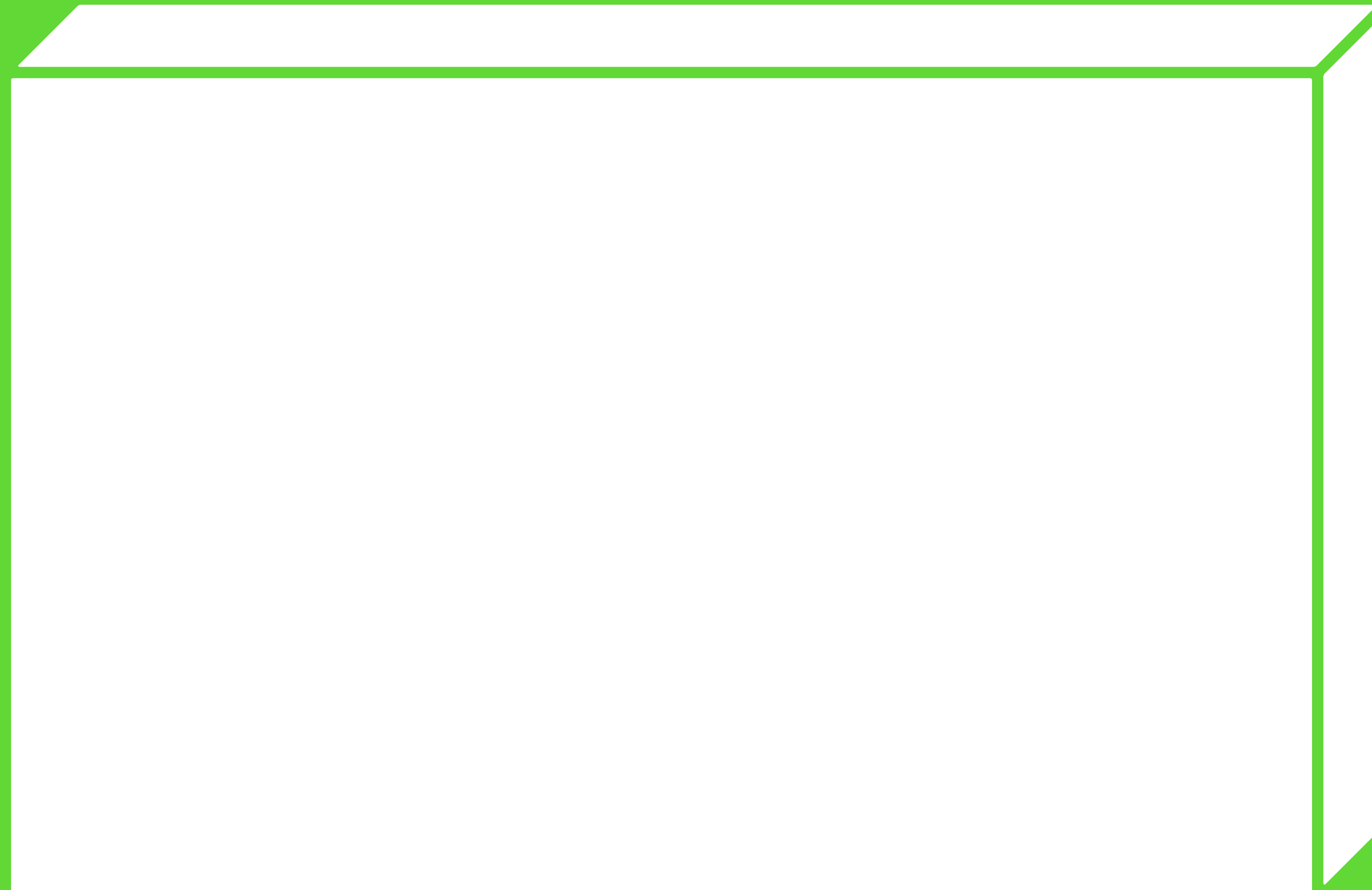

attempt #5

frames

size
22 MB

requests
0

loaded
9 sec



**what
about
svg?**

attempt #6

svg

```
<svg>
```

```
  <rect x=32 y=48 width=1 height=1 fill=#C53631> × 144.000
```

```
</svg>
```

attempt #6

svg

size
7.3 MB

requests
0

loaded
2 sec



**the modern
css approach**

attempt #7

absolute positioning

```
<div>  
  <div id=x32y49></div> × 144.000  
</div>
```

```
#x32y49 {  
  position: absolute; top: 49px; left: 32px;  
  background-color: #C53631;  
}
```

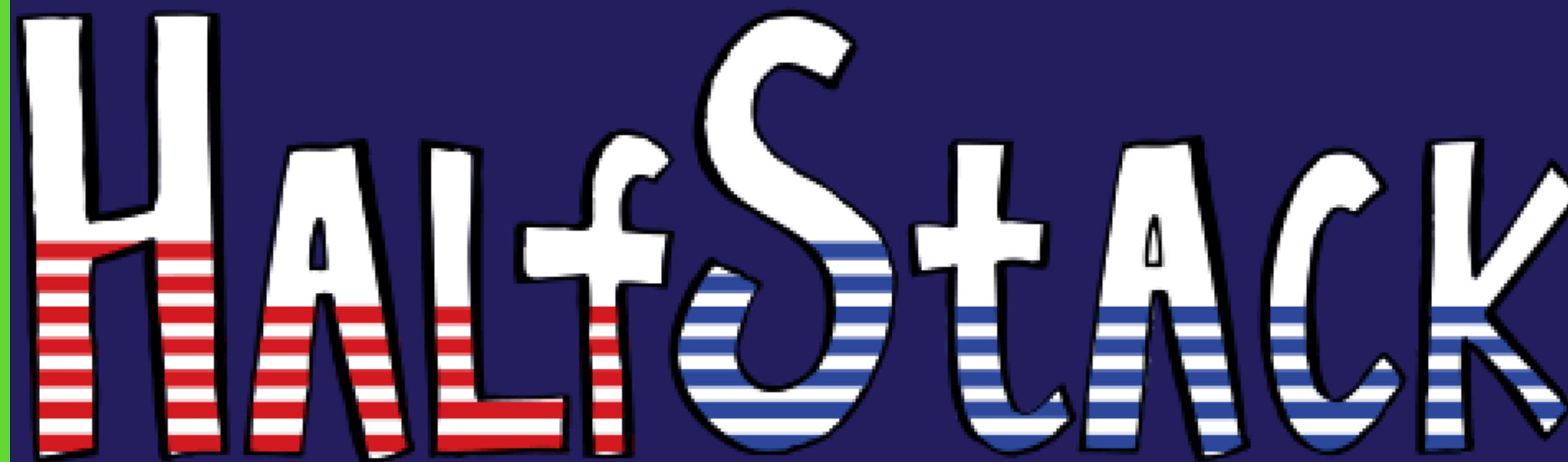
attempt #7

absolute
positioning

size
13 MB

requests
0

loaded
3 sec

The logo for 'HALFSTACK' is displayed in a stylized, outlined font. The letters 'HALF' are filled with red and white horizontal stripes, while 'STACK' is filled with blue and white horizontal stripes. The entire logo is set against a dark blue rectangular background.

HALFSTACK

attempt #8

pseudo elements

```
#image::after {  
    position: absolute; top: 49px; left: 32px;  
    background-color: #C53631;  
}
```

```
#image::after::after { ... }  
#image::after::after::after { ... }  
#image::after::after::after::after { ... }
```

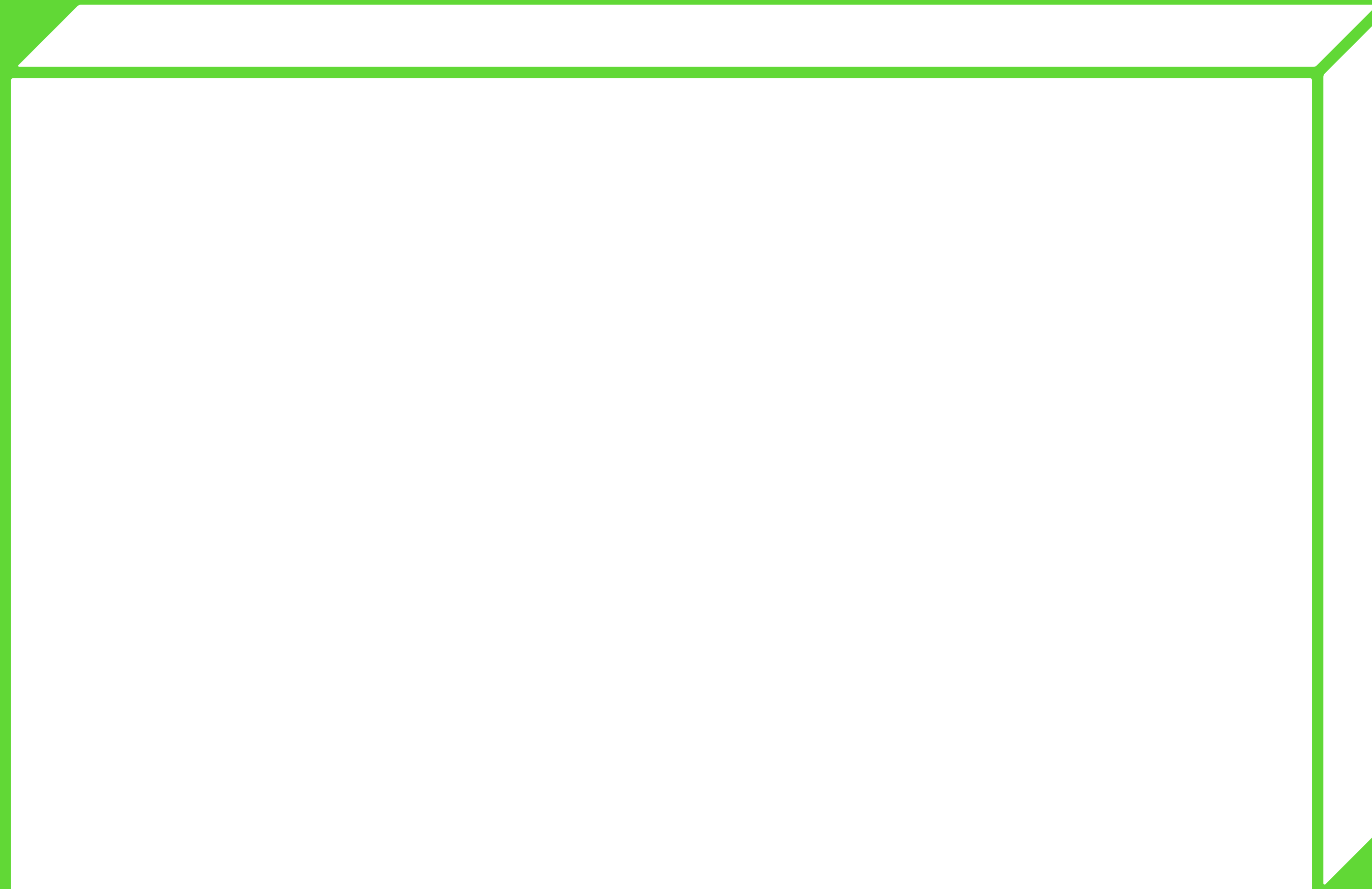

attempt #8

pseudo
elements

size
37 GB

requests
0

loaded
∞ sec



attempt #9

grid with
::nth-child

```
<div>  
  <div></div> × 144.000  
</div>
```


```
div > div:nth-child(1650)  {  
  grid-area: 50 / 33 / 51 / 34;  
  background-color: #C53631;  
}
```

attempt #9

grid with
::nth-child

Page Unresponsive

You can wait for it to become responsive or exit the page.

 9.output.html

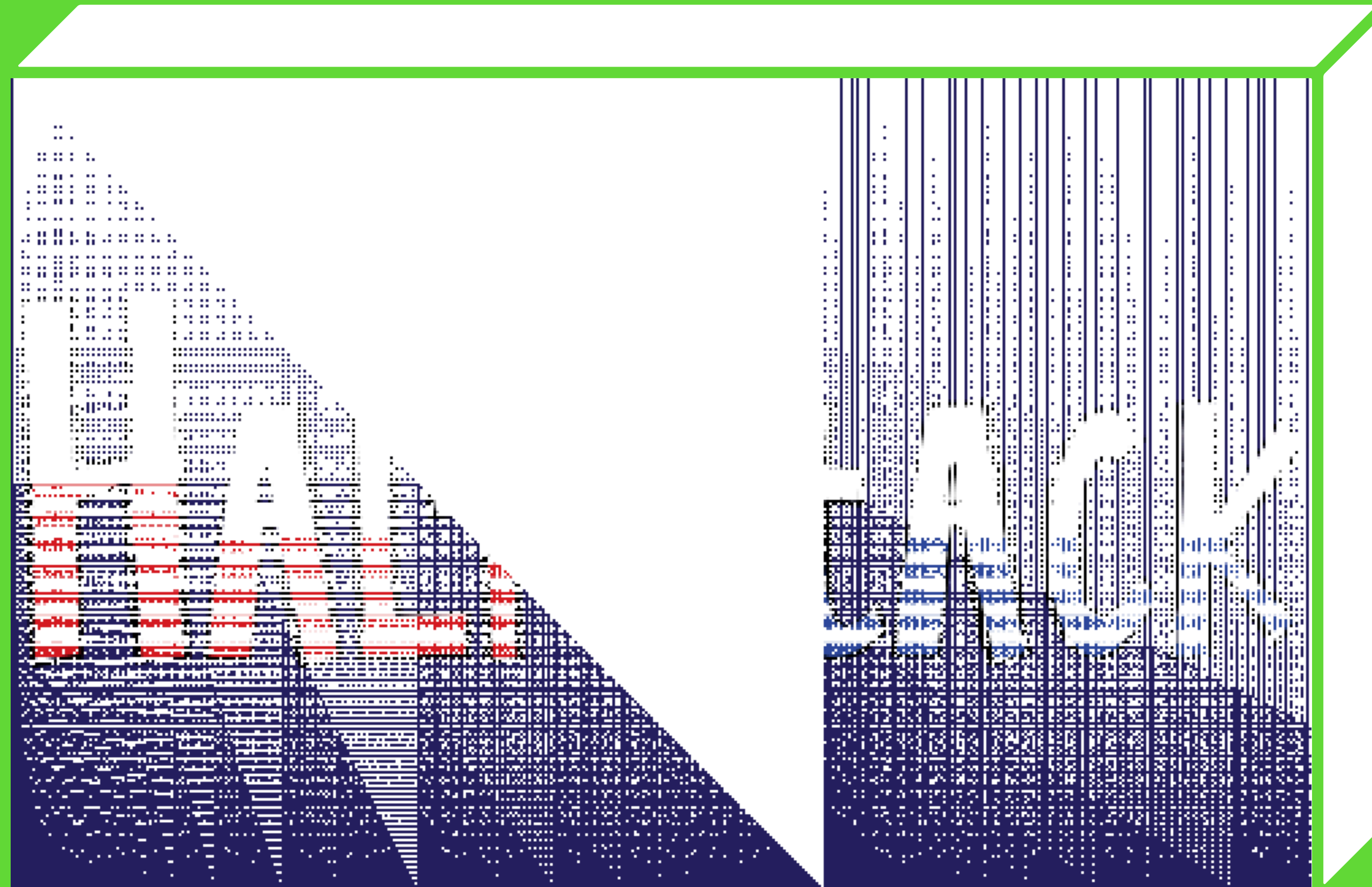
Exit Page

Wait

attempt #9

grid with
::nth-child

size
15 MB
requests
0
loaded
1260 sec



attempt #10

box shadow

```
div {  
  width: 1px;  
  height: 1px;  
  background-color: #25225E;  
}
```



attempt #10

box shadow

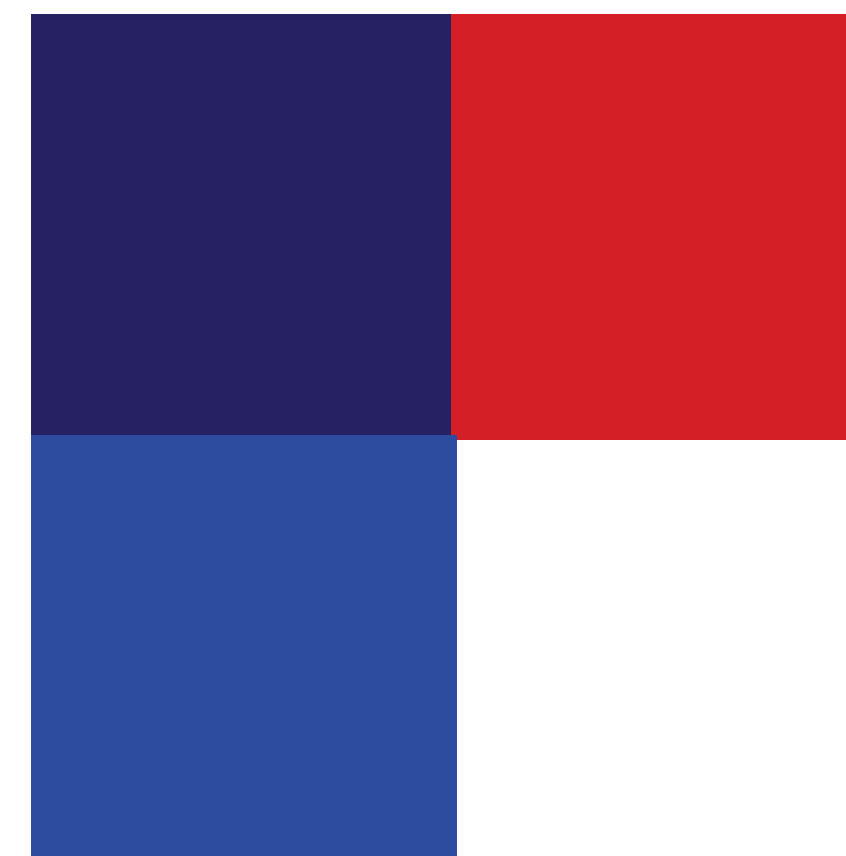
```
div {  
  box-shadow: 1px 0px #C53631;  
}
```



attempt #10

box shadow

```
div {  
  box-shadow: 1px 0px #C53631,  
             0px 1px #344A9A;  
}
```



attempt #10

box shadow

```
div {  
  box-shadow: 1px 0px #C53631,  
             0px 1px #344A9A,  
             1px 1px #000000;  
}
```



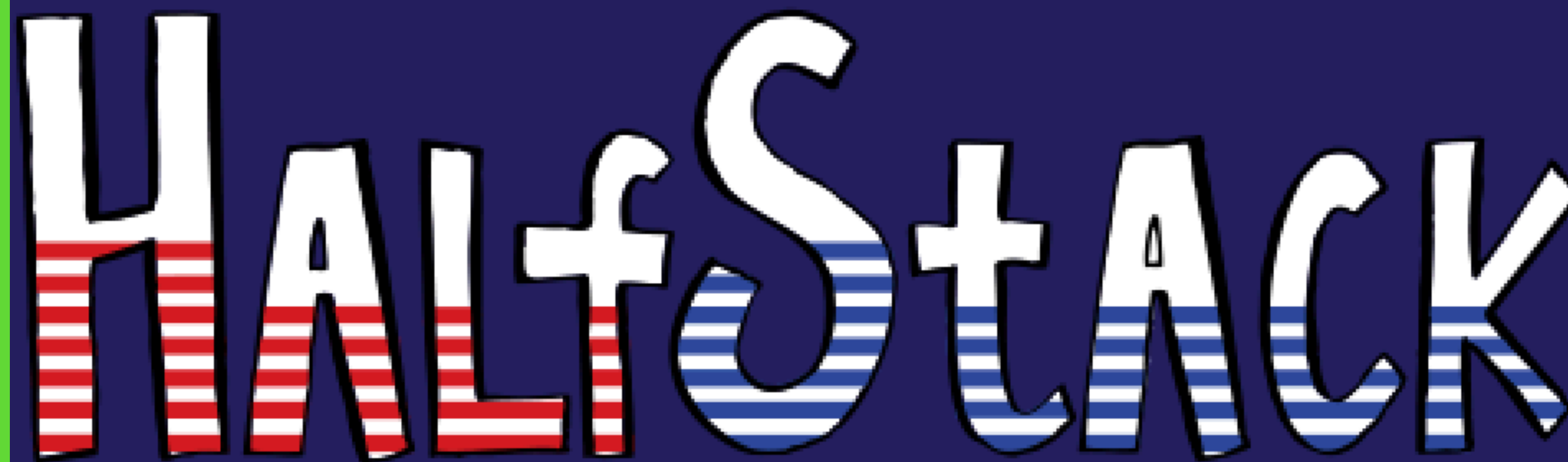
attempt #10

box shadow

size
2.8 MB

requests
0

loaded
0.1 sec

The logo for 'HALFSTACK' is displayed in a stylized, bold font. The letters are white with a thick black outline. The bottom portion of each letter is filled with horizontal stripes. The 'HALF' part of the logo uses red and white stripes, while the 'STACK' part uses blue and white stripes. The logo is centered on a dark blue rectangular background.

HALFSTACK

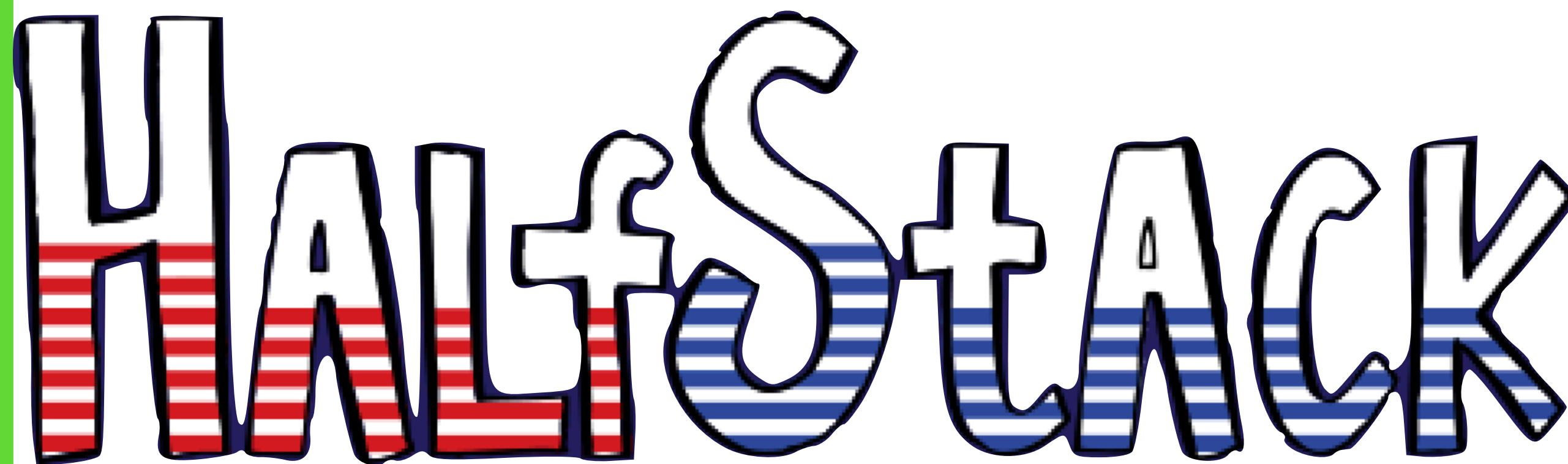
attempt #10

box shadow

size
608 KB

requests
0

loaded
40 ms

The logo for 'HALFSTACK' is displayed in a stylized, bubbly font. The letters are white with a thick blue outline. The bottom portion of the letters is filled with horizontal stripes. The 'HALF' part of the logo features red and white stripes, while the 'STACK' part features blue and white stripes. The entire logo is centered within a white rectangular box that has a 3D effect with a green shadow on its right and bottom sides.

HALFSTACK

attempt #3

size
18 MB

loaded
13 sec



attempt #10

size
604 KB

loaded
40 ms

key takeaways

key takeaways

**html4 is better
than html5**

key takeaways

**use <div>'s with
id's for everything**

key takeaways

**the maximum length
of a string is
9.007.199.254.740.991
characters**



key takeaways

**w3schools is way
better and has
more info than mdn**

key takeaways

don't use 144.000
<frame>'s
in one <frameset>

but...

HALFSTACK ?

HALfStACK!

HALFSTACK!

thank you