





Lazy Load

Anton Ball • Web Directions Lazy Load 2021





```



```

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





Thank you



```

```

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





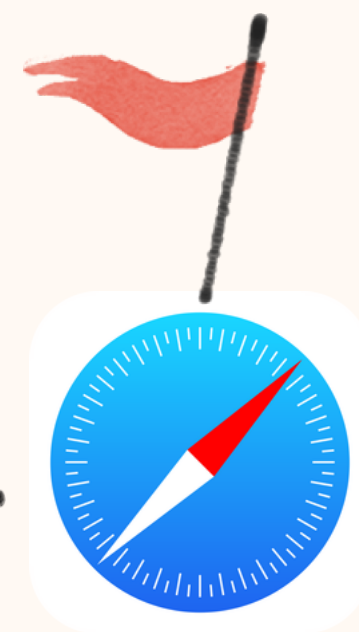
Sept 2019



Jan 2020



Feb 2020



Mar 2020

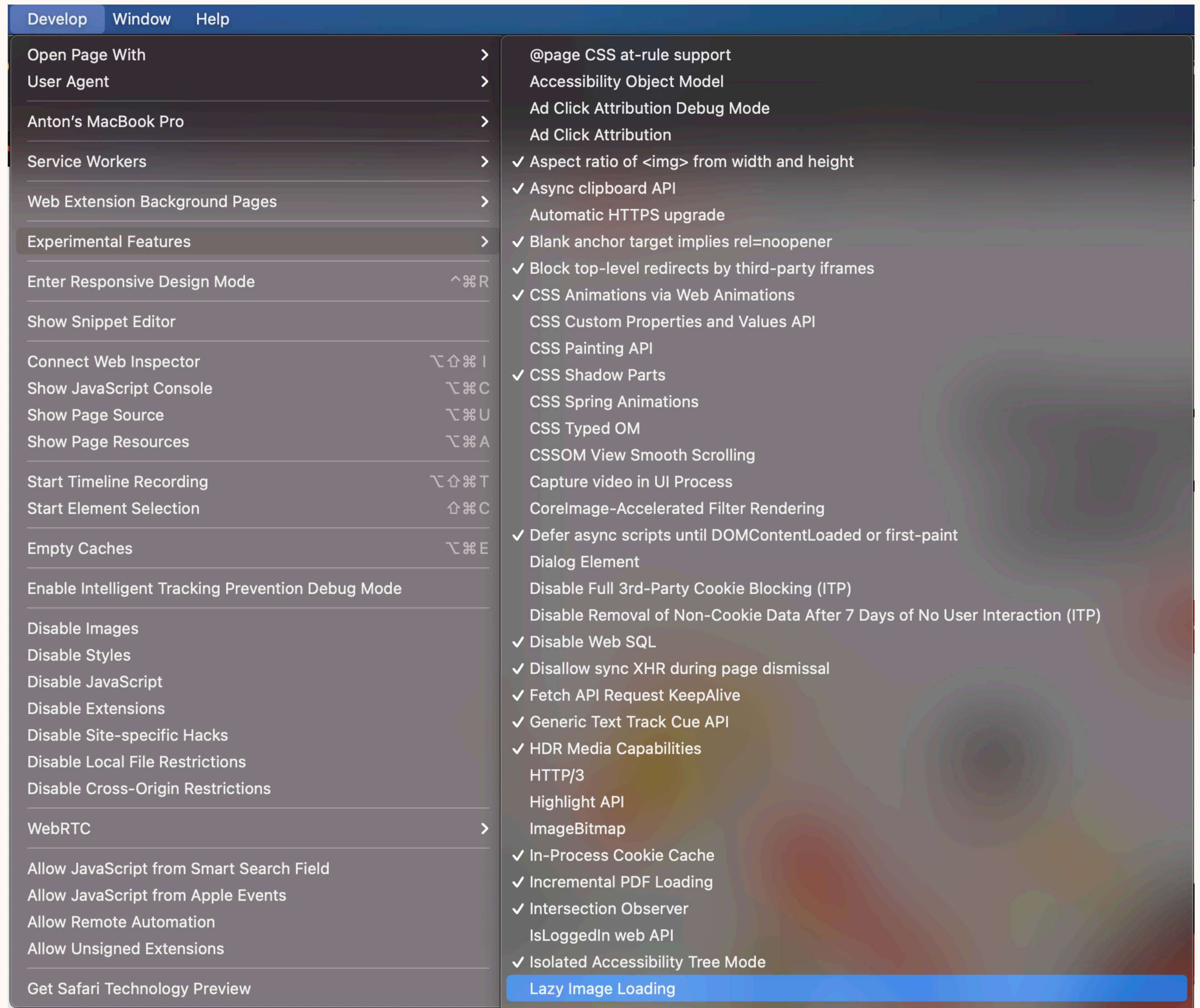


Apr 2020

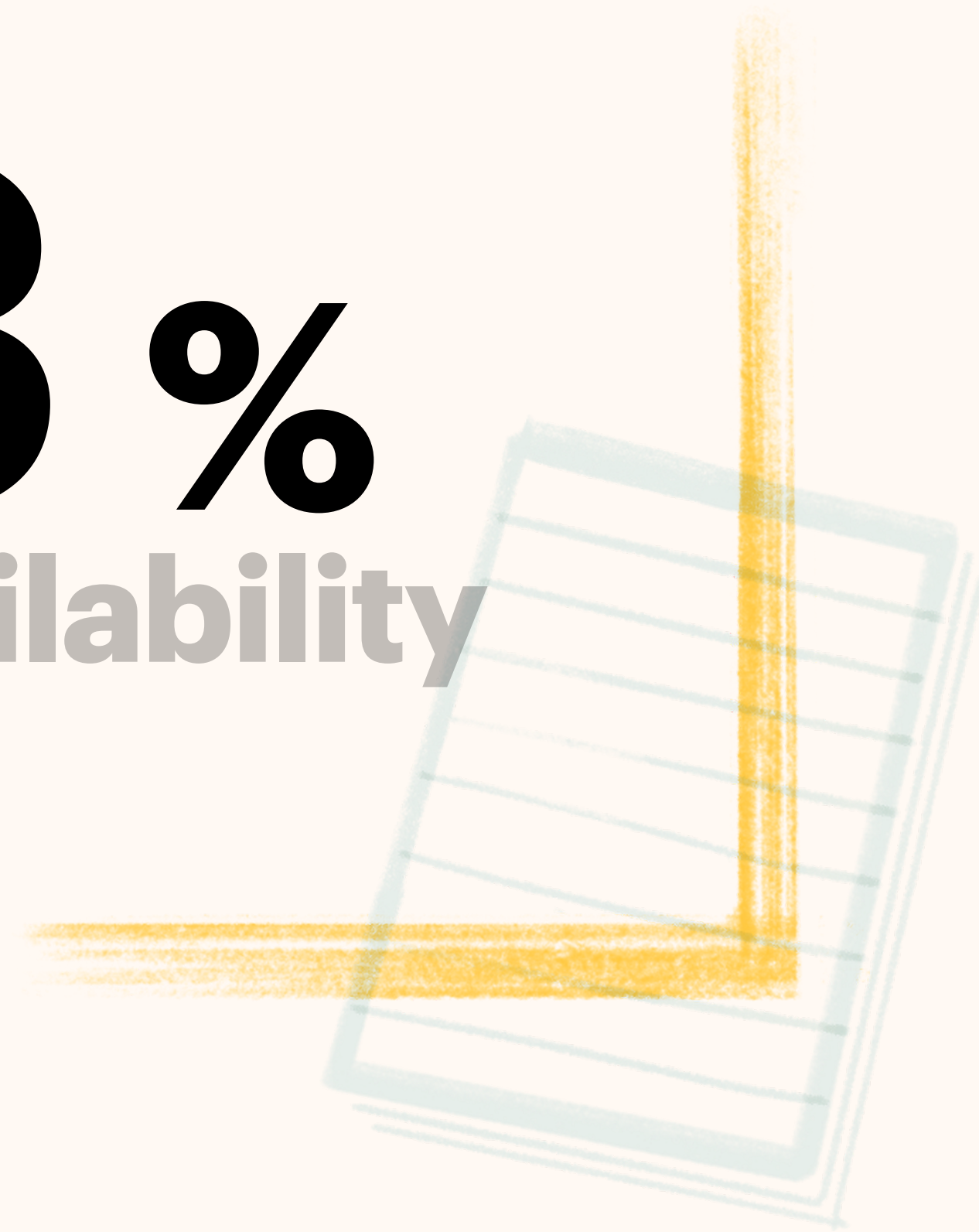


Develop

- > Experimental Features
- > Lazy Image Loading



73%
global availability



Median Image Requests

per page

26
desktop



24
mobile

Median Image Transfer Size

per page

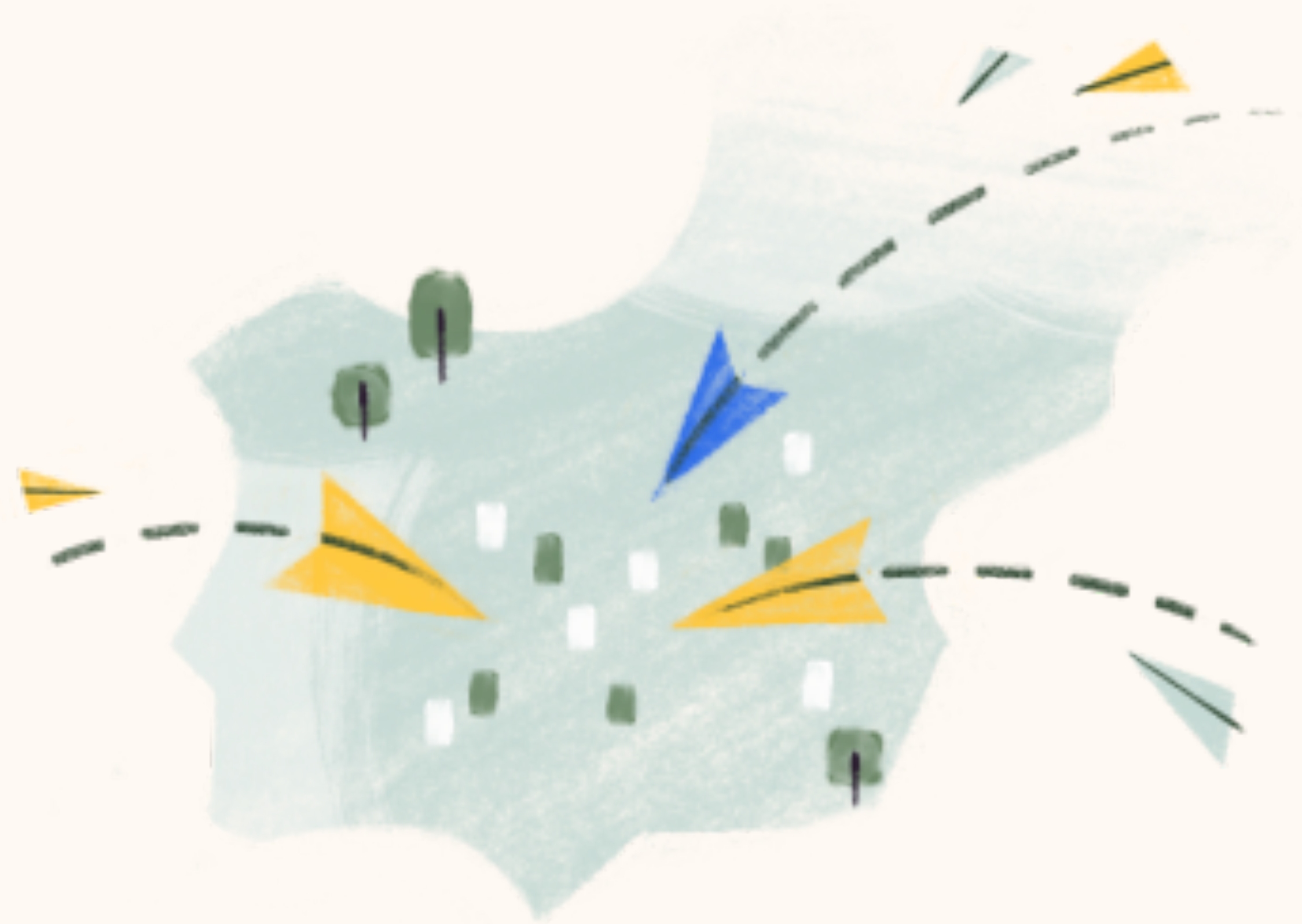
948kb

desktop



902kb

mobile





```
addEventListener('scroll', loadImage);
```

X Requires JavaScript

X Poor Performance

X Potentially unreliable



```
const imgObserver = new IntersectionObserver(loadImages);  
imgObserver.observe(imageToLoad);
```

X Requires JavaScript

X Browser Support



```
  
<noscript>  
    
</noscript>
```

X Maintenance



No JavaScript

No NoScript Element

Reliable preloading

Decide whether to lazy load





loading: eager | lazy

property

value

default, missing and invalid value



loading: **eager** | **lazy**
property value

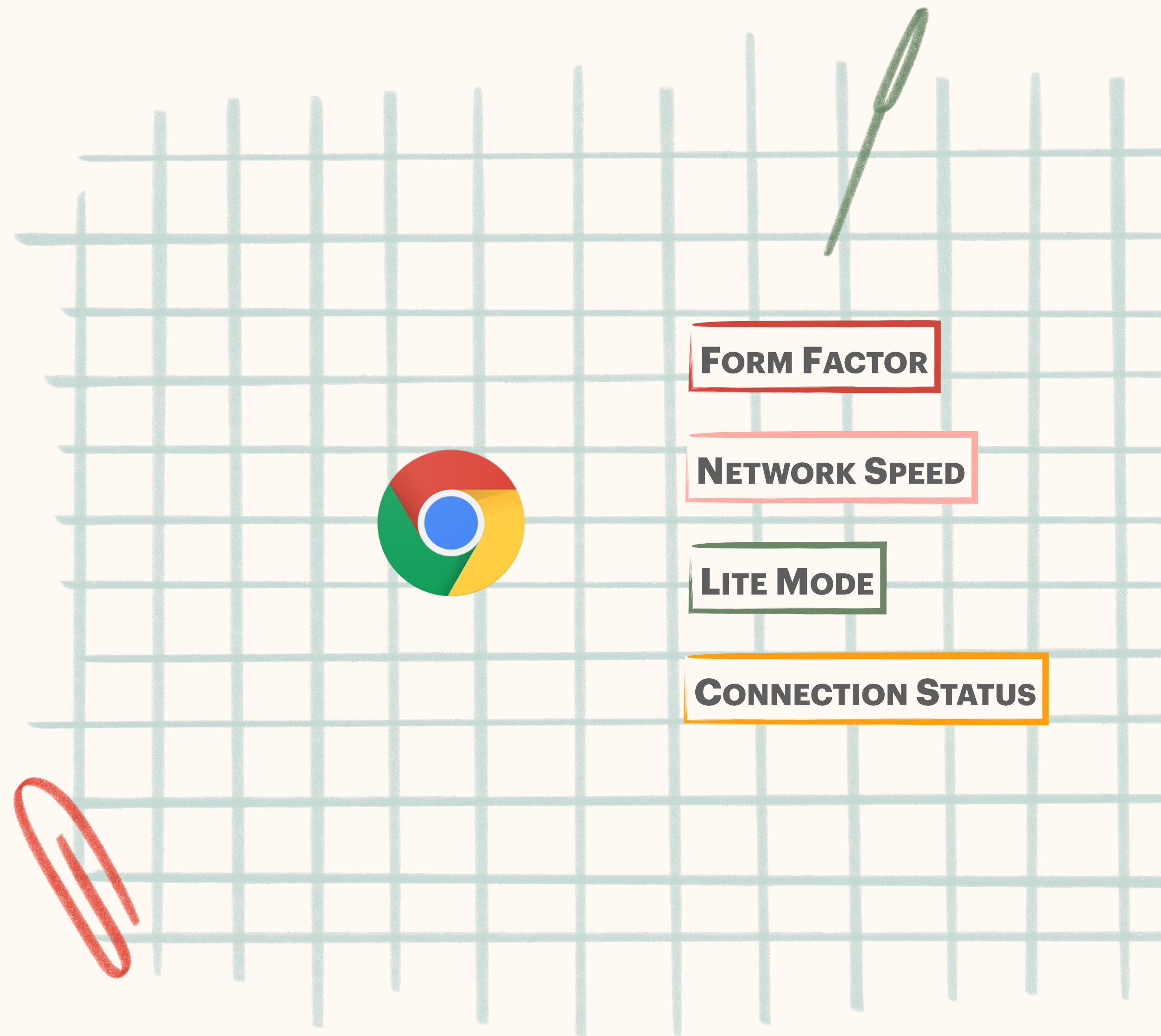
native lazy load

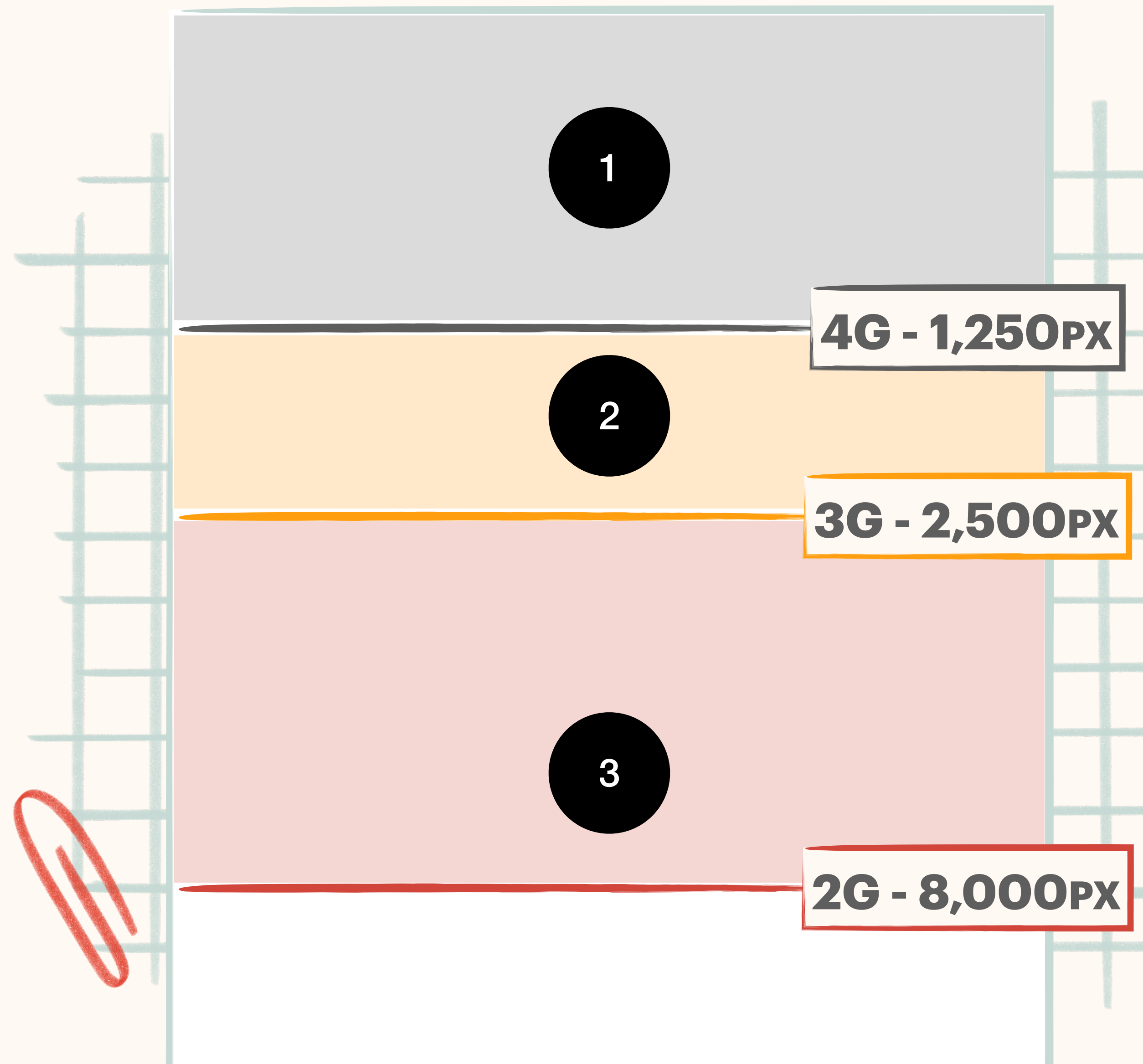


loading: eager | lazy

property

value





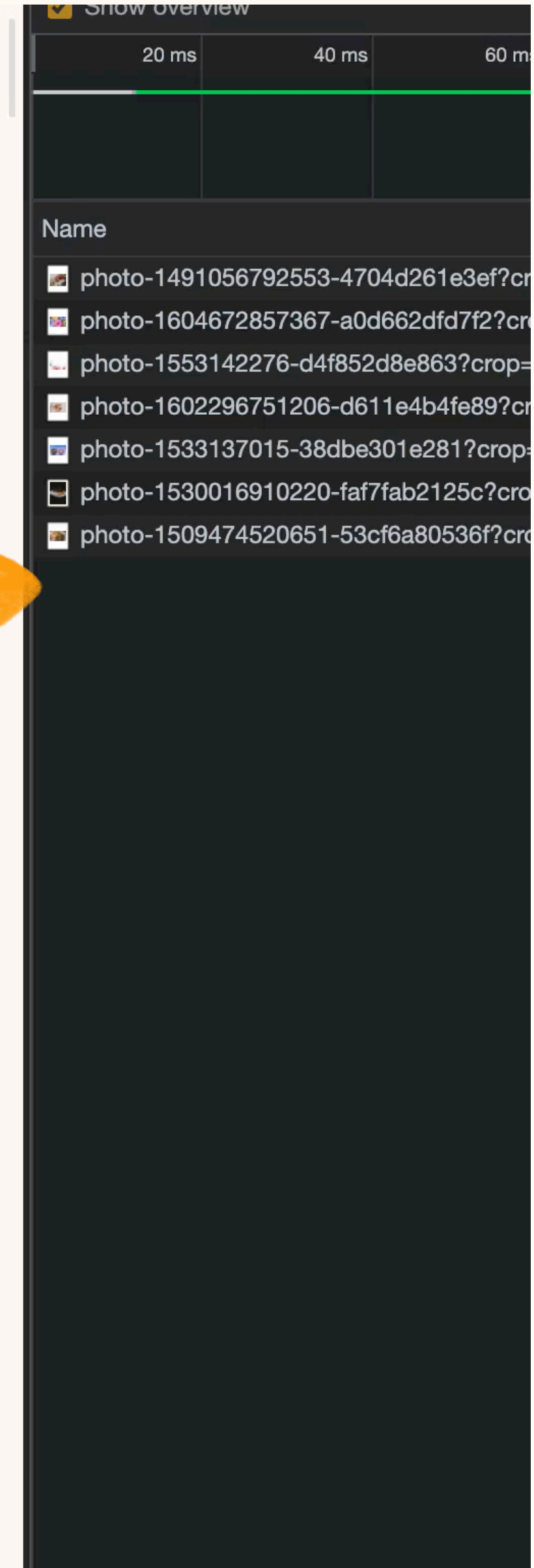
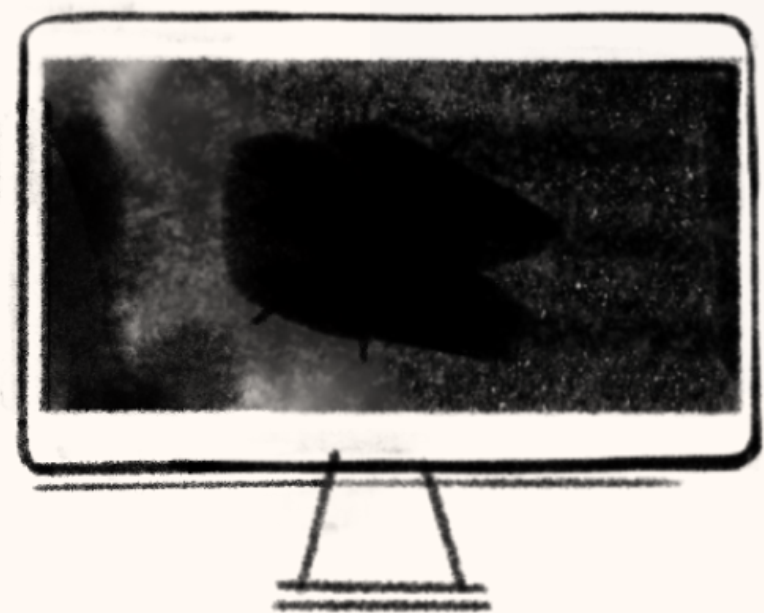


photo-1583872548706-bdbf14cc19b9?crop=entropy&cs=t...8fHx8fHx8M
photo-1522142112700-daecbb998ec9?crop=entropy&cs=t...8fHx8fHx8M
photo-1491056792553-4704d261e3ef?crop=entropy&cs=t...8fHx8fHx8M
photo-1559656914-a30970c1affd?crop=entropy&cs=tiny...8fHx8fHx8MT
photo-1602296751209-c52fe103377d?crop=entropy&cs=t...8fHx8fHx8M
photo-1519452706964-2f3e381b7332?crop=entropy&cs=t...8fHx8fHx8M
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photo-1614244098536-e9587de9b4d4?crop=entropy&cs=t...8fHx8fHx8M
photo-1598184274799-9caf3262089a?crop=entropy&cs=t...8fHx8fHx8M
photo-1602296751198-a29df947b640?crop=entropy&cs=t...8fHx8fHx8M
photo-1533136872-c5d7b7b800ae?crop=entropy&cs=tiny...8fHx8fHx8M
photo-1516918977792-f0f8948aa15a?crop=entropy&cs=t...8fHx8fHx8M

No THROTTLING



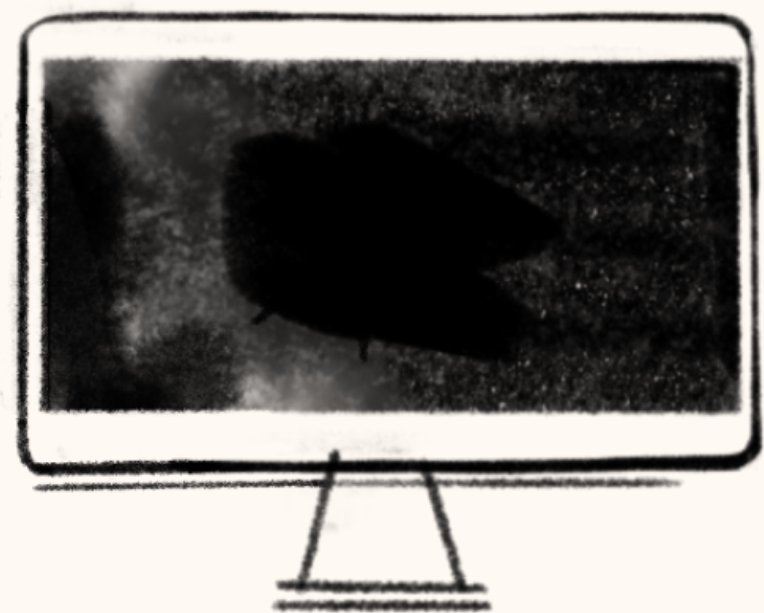
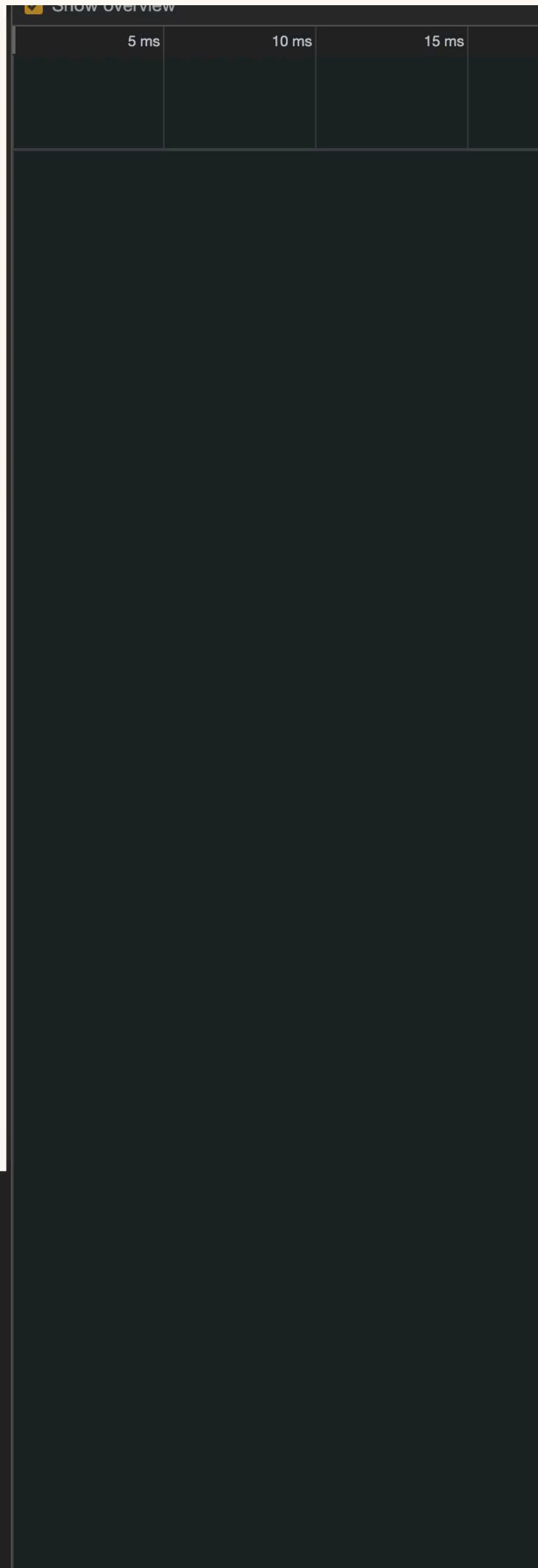
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photo-1604672857367-a0d662dfd7f2?crop=entropy&cs=t...8fHx8fHx8M
photo-1553142276-d4f852d8e863?crop=entropy&cs=tiny...8fHx8fHx8MT
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photo-1533137015-38dbe301e281?crop=entropy&cs=tiny...8fHx8fHx8M
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photo-1602296751259-edfb8274b682?crop=entropy&cs=t...8fHx8fHx8M
photo-1583872548706-bdbf14cc19b9?crop=entropy&cs=t...8fHx8fHx8M
photo-1602296751209-c52fe103377d?crop=entropy&cs=t...8fHx8fHx8M
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photo-1597233219841-3fc70d53bea8?crop=entropy&cs=t...8fHx8fHx8M
photo-1614244098536-e9587de9b4d4?crop=entropy&cs=t...8fHx8fHx8M
photo-1598184274799-9caf3262089a?crop=entropy&cs=t...8fHx8fHx8M
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photo-1516918977792-f0f8948aa15a?crop=entropy&cs=t...8fHx8fHx8M
photo-1570131875041-44b41e8e3319?crop=entropy&cs=t...8fHx8fHx8M
photo-1556913396-7a3c459ef68e?crop=entropy&cs=tiny...8fHx8fHx8MT
photo-1611351061018-600b1bcabff9?crop=entropy&cs=t...8fHx8fHx8M
photo-1532117182044-031e7cd916ee?crop=entropy&cs=t...8fHx8fHx8M
photo-1454255779048-55ecd78837d4?crop=entropy&cs=t...8fHx8fHx8M
photo-1602296751259-edfb8274b682?crop=entropy&cs=t...8fHx8fHx8M
photo-1560188305-4746aa498724?crop=entropy&cs=tiny...8fHx8fHx8M
photo-1543876604-b8ac0e7ded00?crop=entropy&cs=tiny...8fHx8fHx8M
photo-1610606983485-1293b3bf9a6f?crop=entropy&cs=t...8fHx8fHx8M
photo-1533136872-c5d7b7b800ae?crop=entropy&cs=tiny...8fHx8fHx8M
photo-1598184274561-c0789b10bdab?crop=entropy&cs=t...8fHx8fHx8M
photo-1534073737927-85f1ebff1f5d?crop=entropy&cs=t...8fHx8fHx8MT
photo-1605819511131-4e5aa440139b?crop=entropy&cs=t...8fHx8fHx8M
photo-1525803413375-0fee82594ff8?crop=entropy&cs=t...8fHx8fHx8MT
photo-1528354300706-4195c8692502?crop=entropy&cs=t...8fHx8fHx8M

SLOW 3G



When won't it work?


- * No Browser Support
- * No JavaScript





loading-attribute-polyfill





```
<noscript class="loading-lazy">  
    
</noscript>
```




```
if ('loading' in HTMLImageElement.prototype) {  
    // supported ✓  
} else {  
    // unsupported ✗  
}
```



```

```



```
<picture>
```

```
  <source media="(min-width: 800px)" srcset="big-doughnut.jpg 1x,  
  bigger-doughnut.jpg 2x">
```

```
  
```

```
</picture>
```

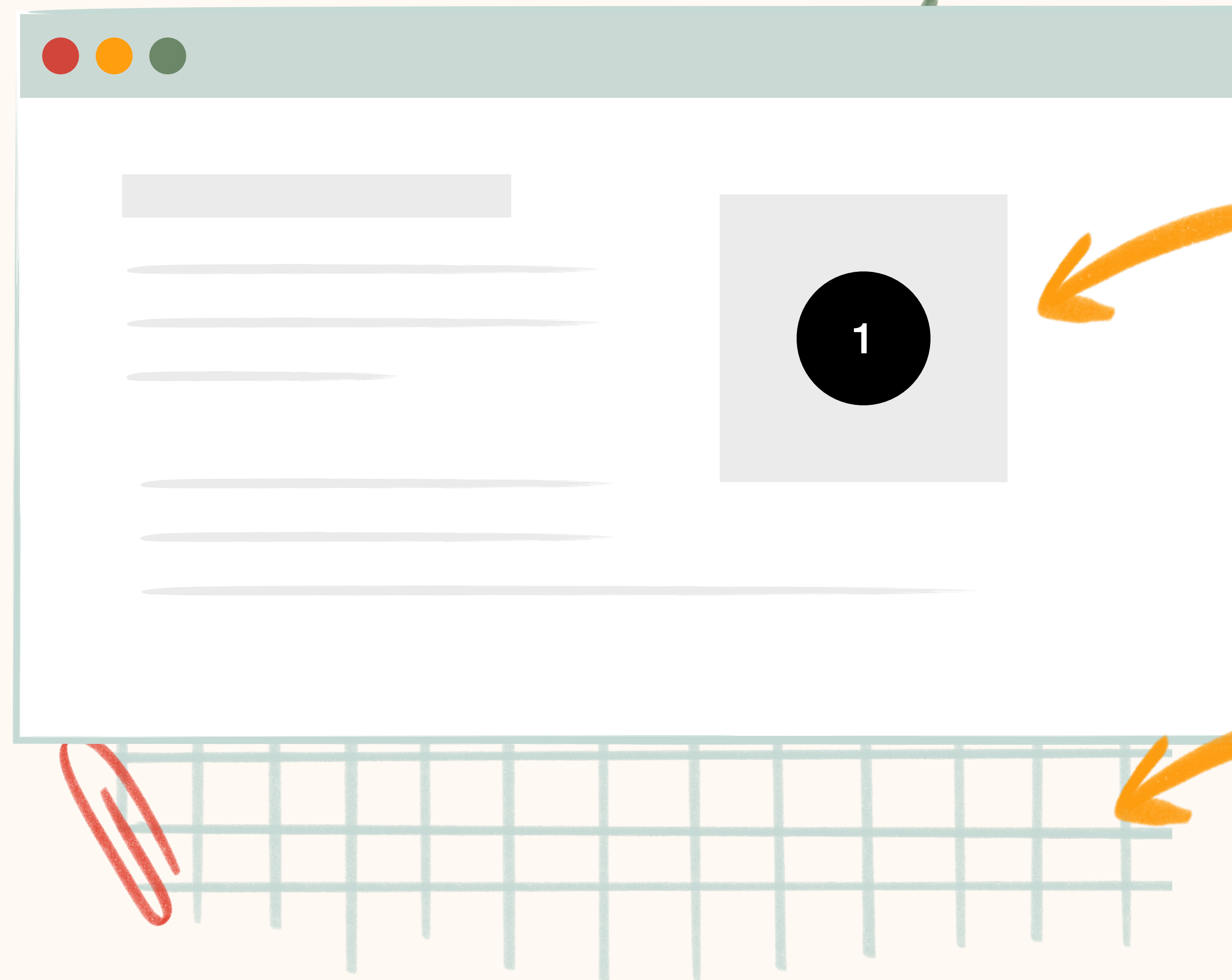




`<iframe src"... " loading="lazy">`

Gotcha #1

Above the fold loading

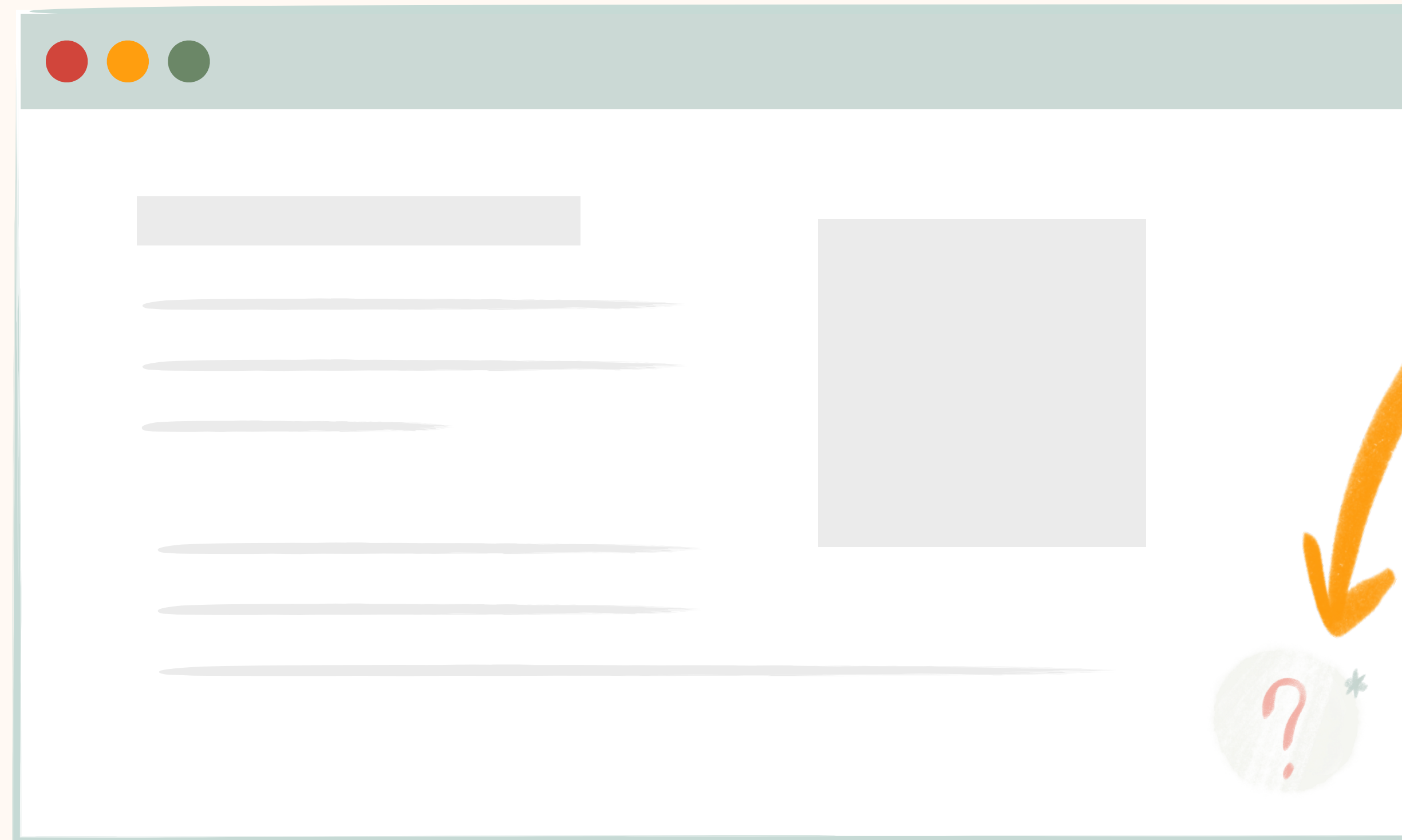


above the fold

below the fold

Gotcha #2

Hidden iFrames



hidden iframe

Gotcha #3

Background images

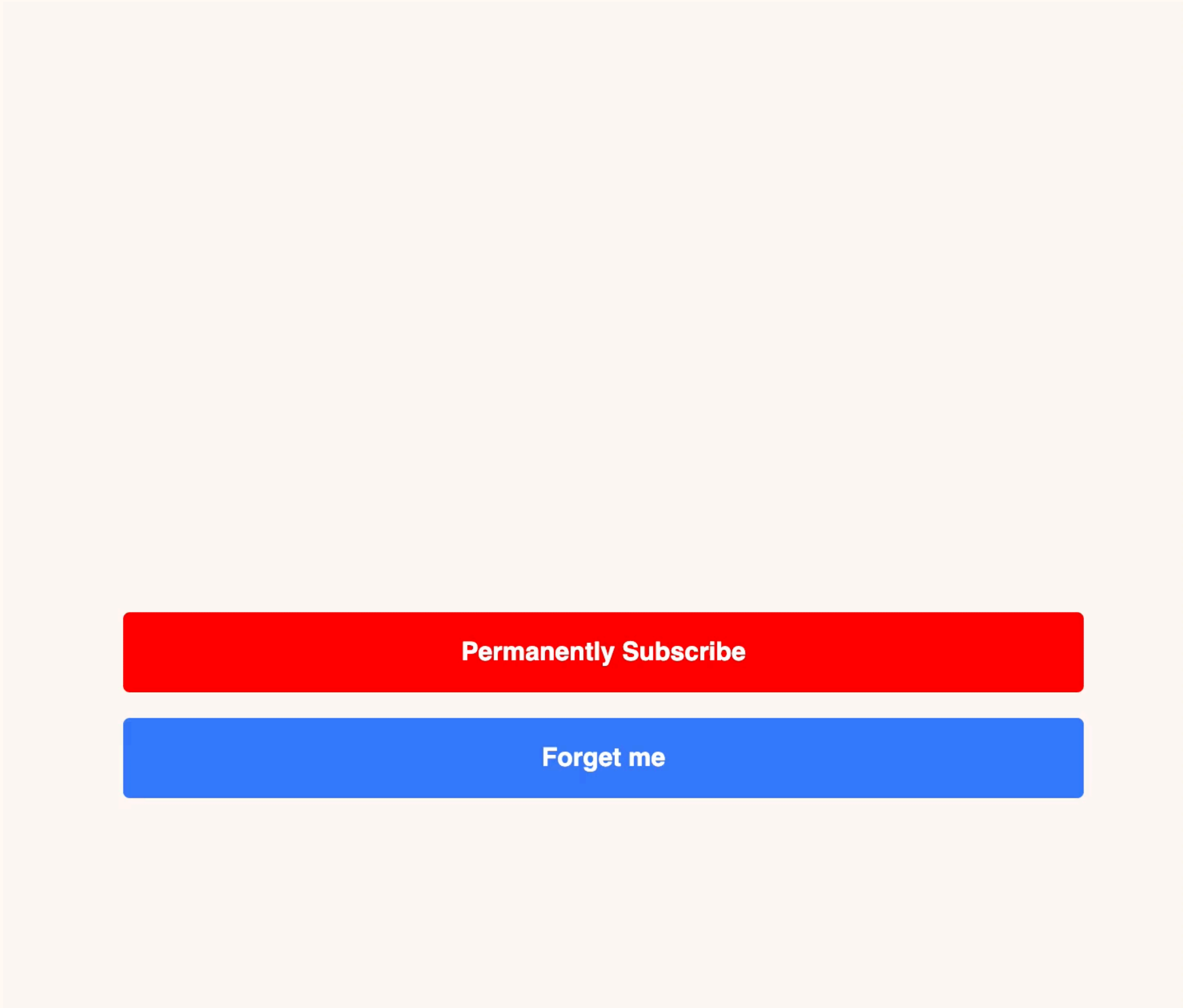
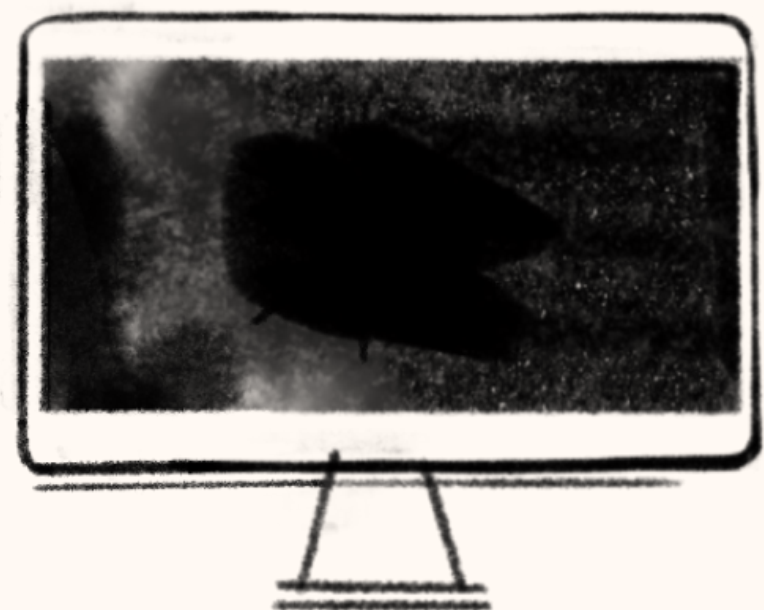
background image





CSS Aspect Ratio

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Thank you