

ACCESSIBILITY IN ANGULAR

— REMOVING BARRIERS.

Twitter, Github, LinkedIn

SCAN HERE

Toni Akinjiola.

SENIOR FRONTEND ENGINEER (PAYPAL)



List of content

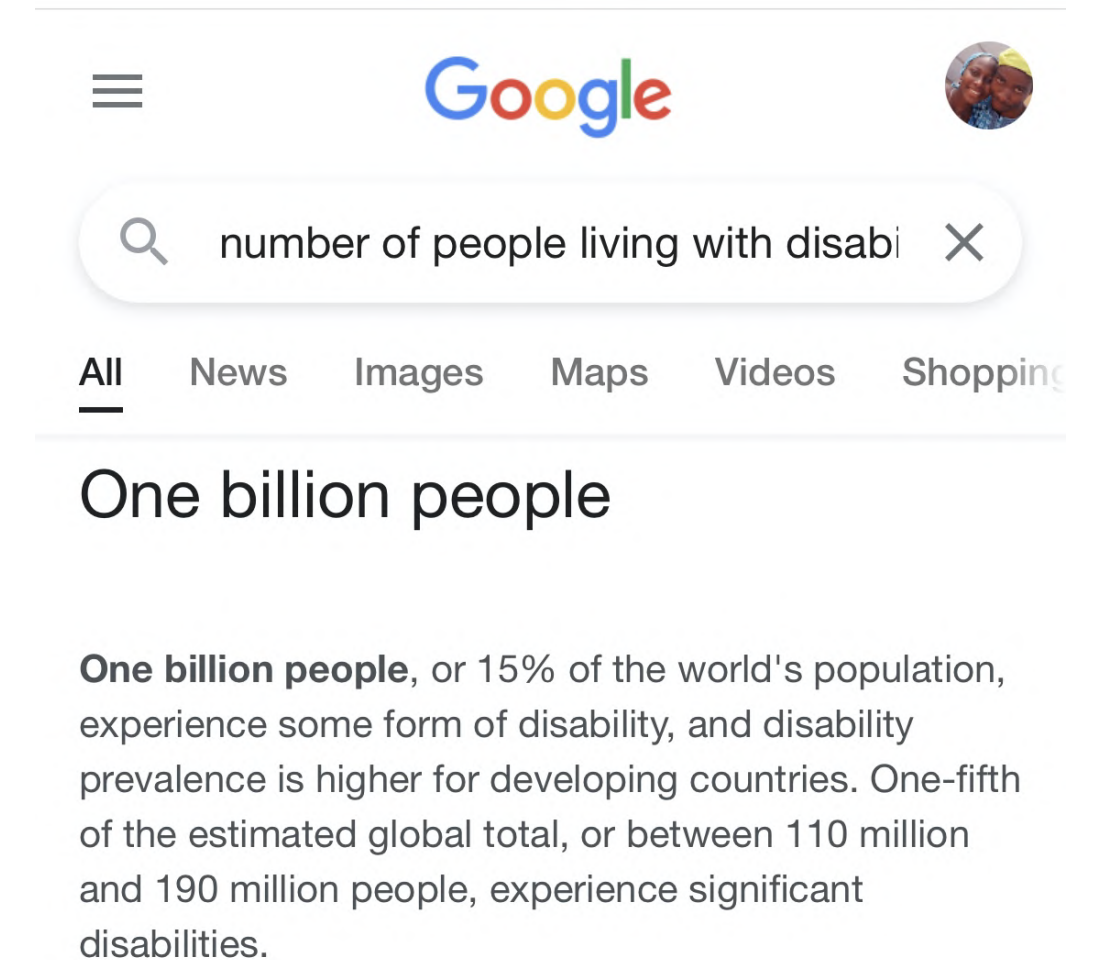
- Why?
- The numbers.
- How?
- Practical examples.
- Tools and resources.

Why?













- People *living with disabilities* rely on it.
- Moral and legal obligations.

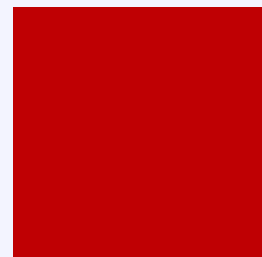


1,000,000,000
people are
with limited abilities
worldwide.

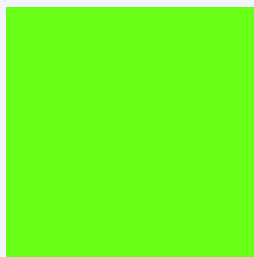


- Birth
- Circumstances
- Age

	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent

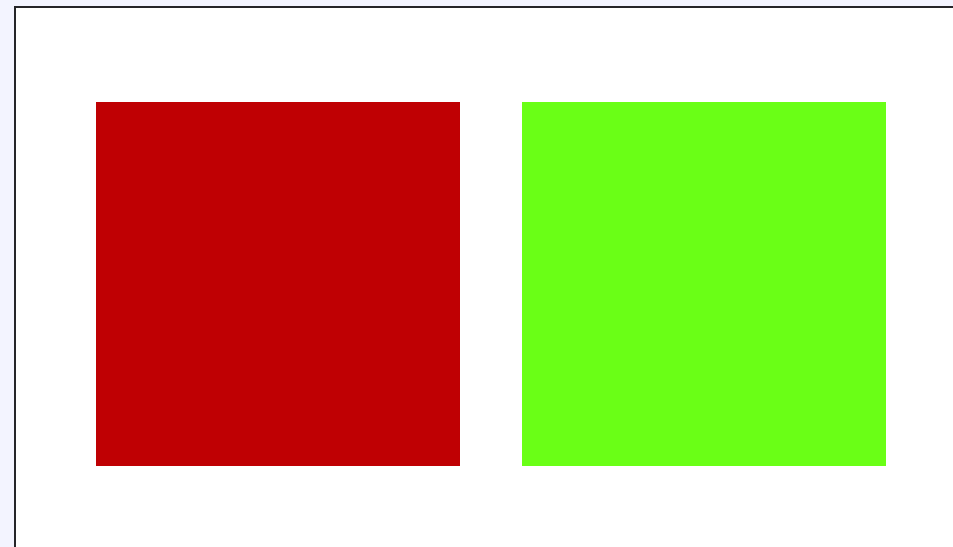


GOOD
CODES



BETTER
CODES

COMPARE
CHANGES



CASE STUDY

<Restaurant Menu *Problem* />

GOOD

PREVIEW

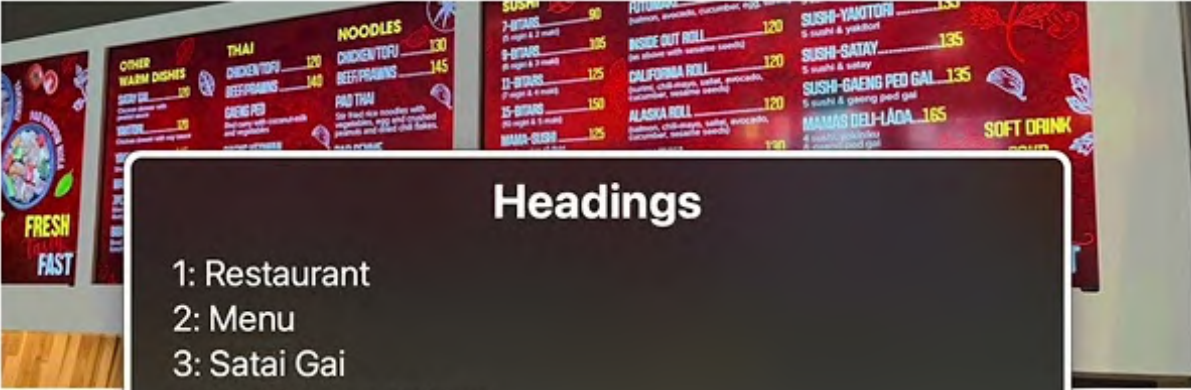
Restaurant

localhost:4200/#main-content

CarsJobsNewsInspirationsMoviesGood ReadsInterview TipsApartments (viewi...ConferencesVisaSportsmoviesResourcesOther Bookmarks

[HomeMenu](#)

Restaurant




Headings

- 1: Restaurant
- 2: Menu
- 3: Satai Gai
- 3: Chicken and chips

Welcome to our restaurant, where we pride ourselves on the importance of accessibility, and the big differences little changes make.

Menu



×

Headings menu

BETTER

PREVIEW

Restaurant

localhost:4200/#menu-heading

CarsJobsNewsInspirationsMoviesGood ReadsInterview TipsApartments (viewi...ConferencesVisaSportsmoviesResourcesOther Bookmarks

• [Home](#)

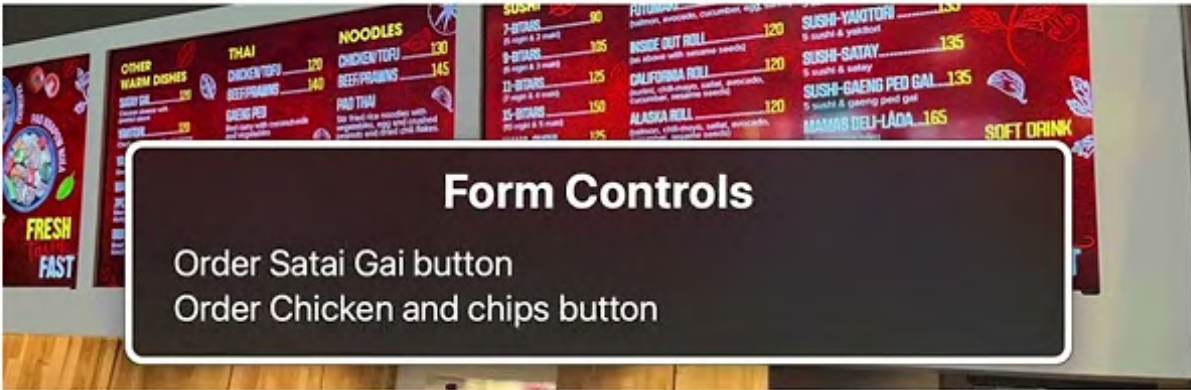
• [Menu](#)

Restaurant

Form Controls


Order Satai Gai button

Order Chicken and chips button



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



×

Form Controls menu

Layout

GOOD CODES



```
1  <div>
2    <div>
3      ... navigation
4    </div>
5  <div>
6    ... header
7  </div>
8  <div>
9    ... main content
10 </div>
11 </div>
```

Layout

BETTER CODES



```
1  <div>
2    <div>
3      ... skip to main content
4    </div>
5    <nav>
6      ... navigation
7    </nav>
8    <header>
9      ... header
10   </header>
11   <main>
12     ... main content
13   </main>
14 </div>
```

Skip to main content

GOOD CODES



1



Skip to main content

PREVIEW

HomeMenu

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



× To get missing image

localhost:4200/#menu-heading

Skip to main content

BETTER CODES



```
1  <div id="skip">
2  |    <a href="#main-content">Skip to main content</a>
3  </div>
```

Skip to main content

PREVIEW

[Skip to main content](#)

- [Home](#)
- [Menu](#)

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



× You are currently on a link, inside

Navigation

GOOD CODES



```
1 <div>
2   . . . . <a href="#">Home</a>
3   . . . . <a href="#menu-heading">Menu</a>
4 </div>
```


Navigation

PREVIEW

HomeMenu

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



× Leaving toolbar item palette.

localhost:4200/#

Navigation

BETTER CODES



```
1  <nav>
2      <ul>
3          <li><a href="#">Home</a></li>
4          <li><a href="#menu-heading">Menu</a></li>
5      </ul>
6  </nav>
```

Navigation

PREVIEW

- [Home](#)
- [Menu](#)

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



× You are currently on a link. To

localhost:4200/#

Header

GOOD CODES



```
1  <div>
2      <h1>Restaurant</h1>
3      
5
6      <p>Welcome to restaurant. This is an Angular project that was
7      developed to showcase the importance of accessibility, and the
      big differences little changes make.</p>
      </div>
```

Header

PREVIEW

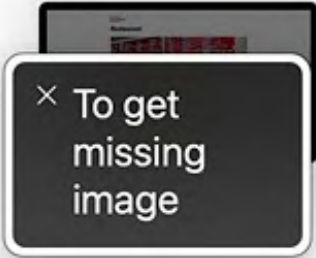
[HomeMenu](#)

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



Header

BETTER CODES



```
1  <header>
2    <h1>Restaurant</h1>
3    <picture>
4      <source sizes="..." media="..." srcset="...">
5      <source media="..." srcset="...">
6      
9    </picture>
10
11    <p>Welcome to restaurant. This is an Angular project that was
    developed to showcase the importance of accessibility, and the
    big differences little changes make.</p>
12 </header>
```

Header

PREVIEW

- [Home](#)
- [Menu](#)

Restaurant



Welcome to restaurant. This is an Angular project that was developed to showcase the importance of accessibility, and the big differences little changes make.

Menu



× You are currently on an image.

Main content

GOOD CODES



```
1  ✓ <div>
2      <h2>Menu</h2>
3  ✓   <ul class="menu-list">
4  ✓       <li *ngFor="let menu of menuList">
5          
7          <h3>{{ menu.name }}</h3>
8  ✓       <p>
9           {{ menu.description }}
10          </p>
11          <span>Ingredients:</span>
12  ✓       <ul class="menu-ingredients">
13          <li *ngFor="let ingredient of menu.ingredients">{
            {ingredient}}</li>
```



```
9      {{ menu.description }}
10    </p>
11    <span>Ingredients:</span>
12    <ul class="menu-ingredients">
13      <li *ngFor="let ingredient of menu.ingredients">{
14        {ingredient}</li>
15      </ul>
16      <button>Order menu</button>
17      <a
18        id="read-more"
19        href="...">
20        Read more...
21      </a>
22    </li>
23  </ul>
24</div>
```

Main content

PREVIEW

Menu



Satai Gai

Satay of course is originally an Indonesian/Malay dish, but it has been in Southern Thailand for a very long time.

Ingredients:

- dry-roasted peanuts
- red curry
- rice
- chicken
- fresh red chilli
- salt

[Order menu](#) [Read more...](#)

× You are currently in a list.

Main content

BETTER CODES



```
1  <main id="main-content" aria-labelledby="menu-heading">
2    <h2 id="menu-heading">Menu</h2>
3    <ul class="menu-list">
4      <li *ngFor="let menu of menuList">
5        
7        <h3 id="menu-{{ menu.id }}-title">{{ menu.name }}</h3>
8        <p>
9          {{ menu.description }}
10        </p>
11        <span id="menu-ingredients-{{ menu.id }}">
12          Ingredients:
```



```
13      <ul class="menu-ingredients" attr.
14          aria-labelledby="menu-ingredients-{{ menu.id }}">
15          <li *ngFor="let ingredient of menu.ingredients">
16              {{ingredient}}
17          </li>
18      </ul>
19      <button>Order {{ menu.name }}</button>
20      <a id="read-more-{{ menu.id }}" class="read-more-link"
21          href="...">
22          Read more...
23          <span class="sr-only">
24              about {{ menu.name }}
25          </span>
26      </a>
27  </li>
28 </ul>
29 </main>
```

Main content

PREVIEW

accessibility, and the big differences little changes make.

Menu



Satai Gai

Satay of course is originally an Indonesian/Malay dish, but it has been in Southern Thailand for a very long time.

Ingredients:

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- red curry
- rice
- chicken
- fresh red chilli
- salt

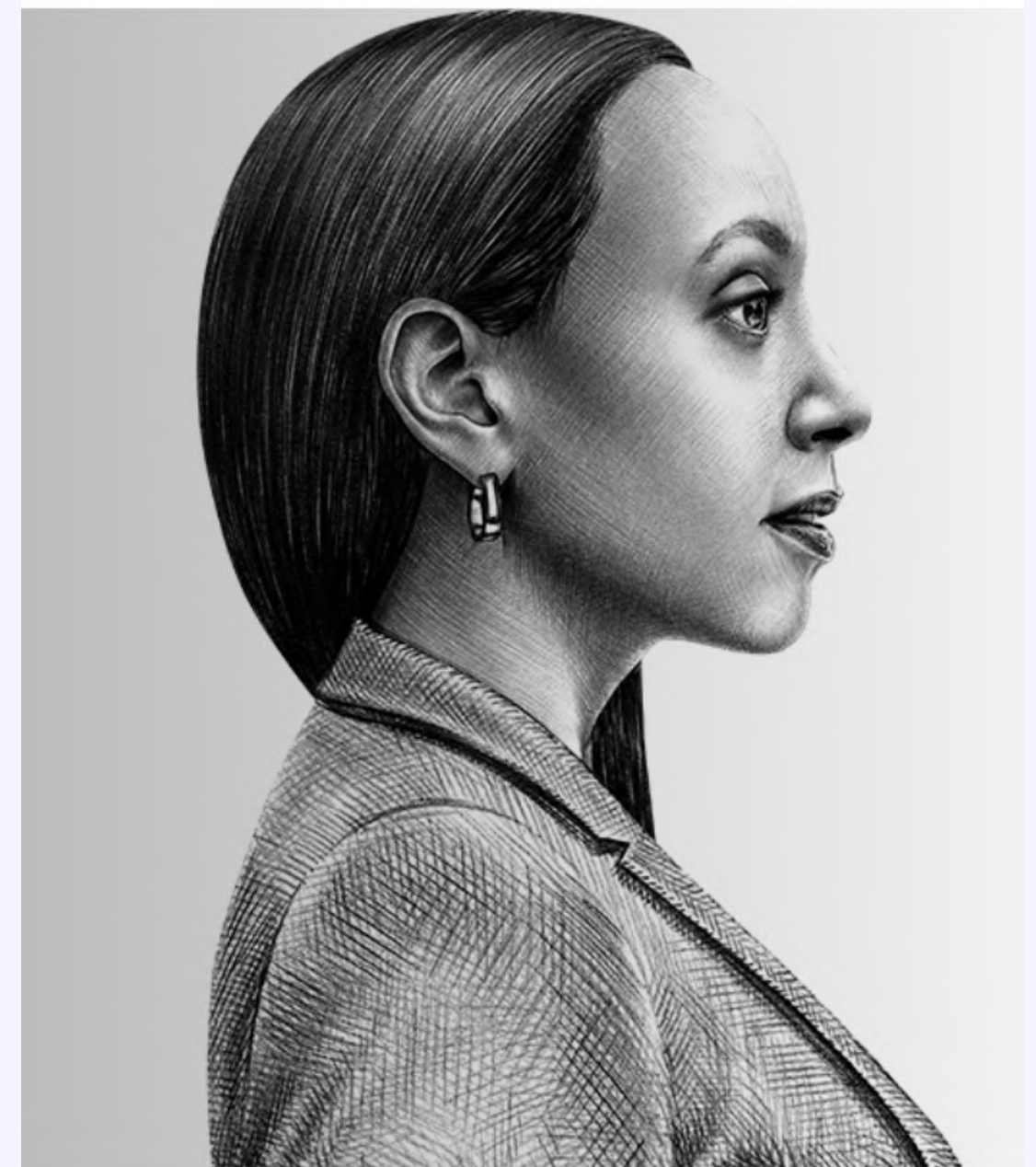
Order Satai Gai

[Read more...](#)

× list
Ingredients:
6 items,

Disability is rarely
the barrier.

~ Haben Girma



How?

- Use keyboard more.
- Right HTML tags.
- Focus traps.
- Test (automated, manual, intelligent).
- Better designs and consistent layouts.
- Follow guidelines.

Guides:

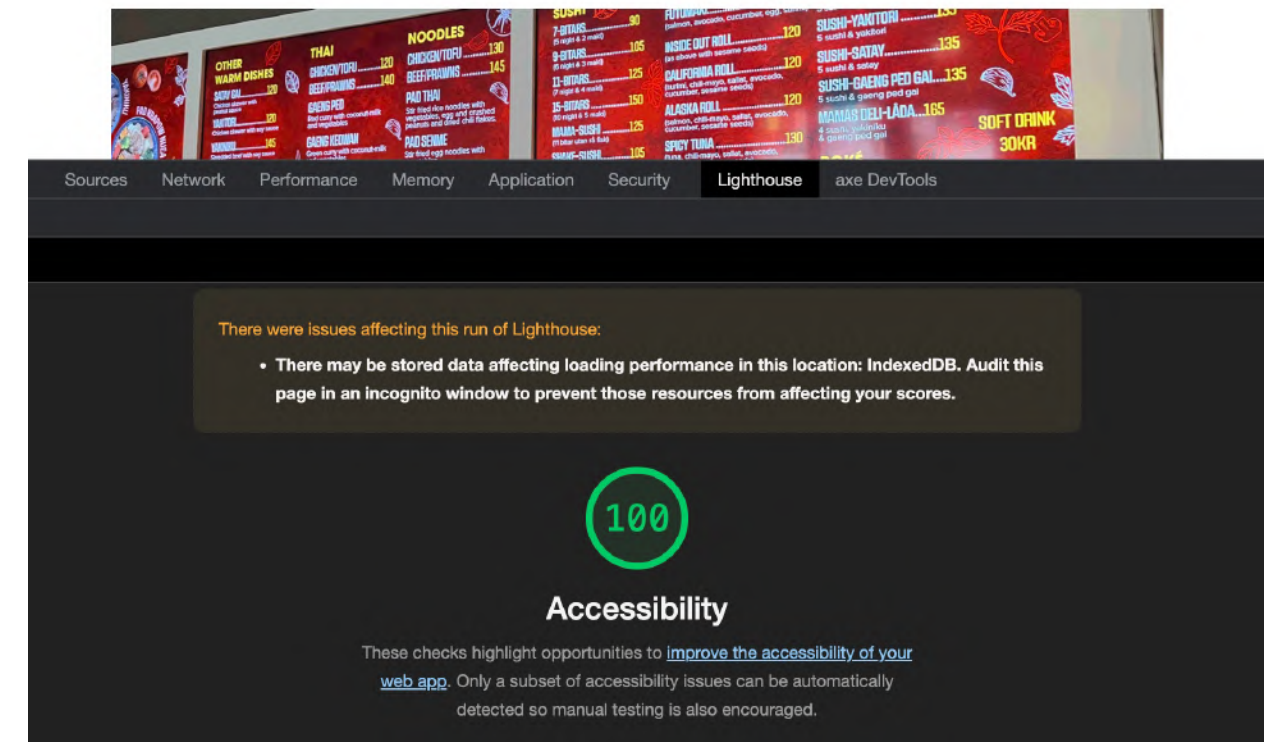
- [Component Development Kit \(CDK\)](#)
- [Accessibility specification.](#)
- [w3.org](#)
- [angular.io/guide/accessibility](#)
- [gov.uk](#)

Tooling tips:

- Google Lighthouse.
- [Wave](#) by WebAIM.
- Voiceover apps
- Axe-core by Deque labs.
- Juicystudio.com

- [Home](#)
- [Menu](#)

Restaurant



Make your web sites accessible
and usable for everyone.

Twitter, Github, LinkedIn

SCAN HERE



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