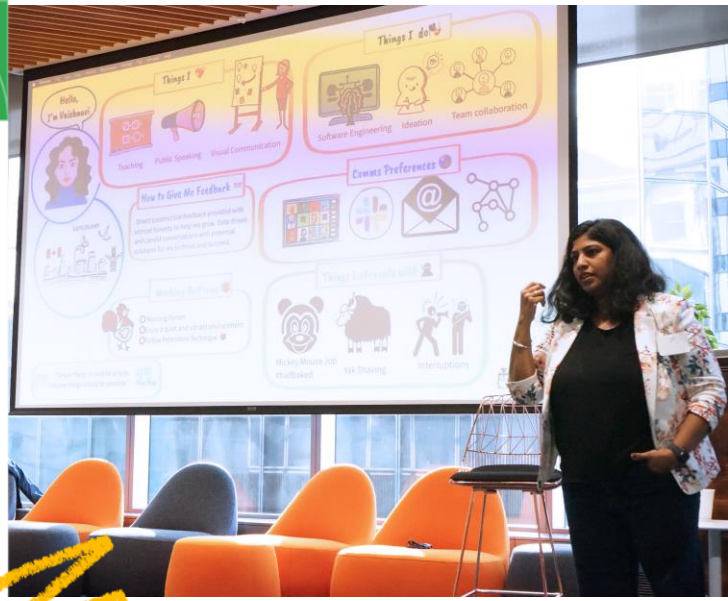
devfest

Bring swagger and A11yship to API documentation



Google Developer Groups

Discord

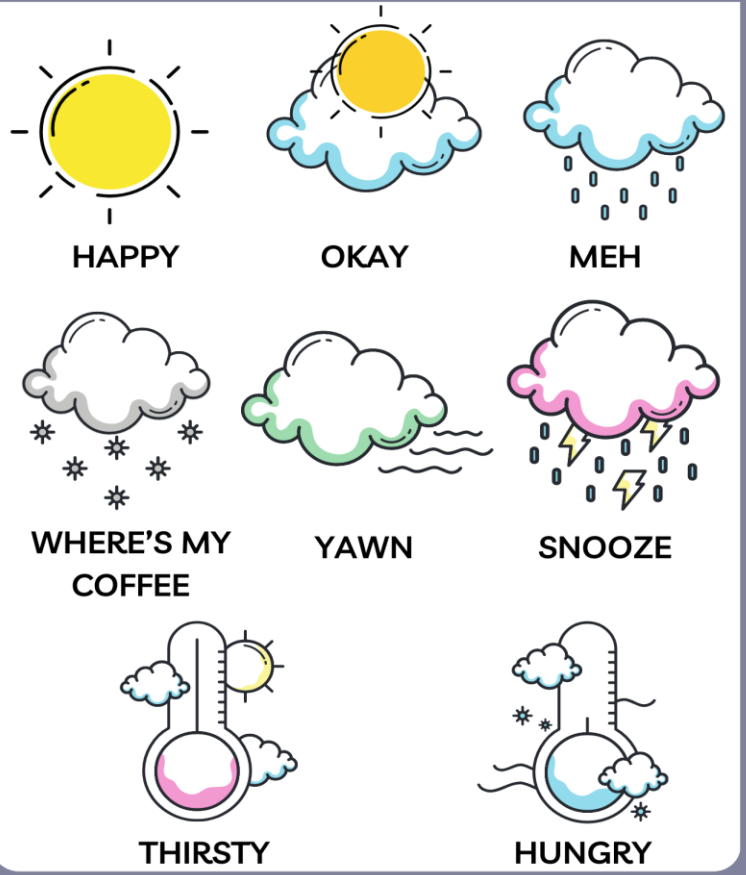
```
Text(
  'Section Title',
  style: TextStyle(
    color: Colors.green[200],
  ),
),
```

devfest

```
s.star,
r: Colors.green[500],

Text('23'),
```

HOW YOU DOIN'



```
Text(
  'Section Title',
  style: TextStyle(
    color: Colors.green[200],
  ),
),

s.star,
r: Colors.green[500],

Text('23'),
```

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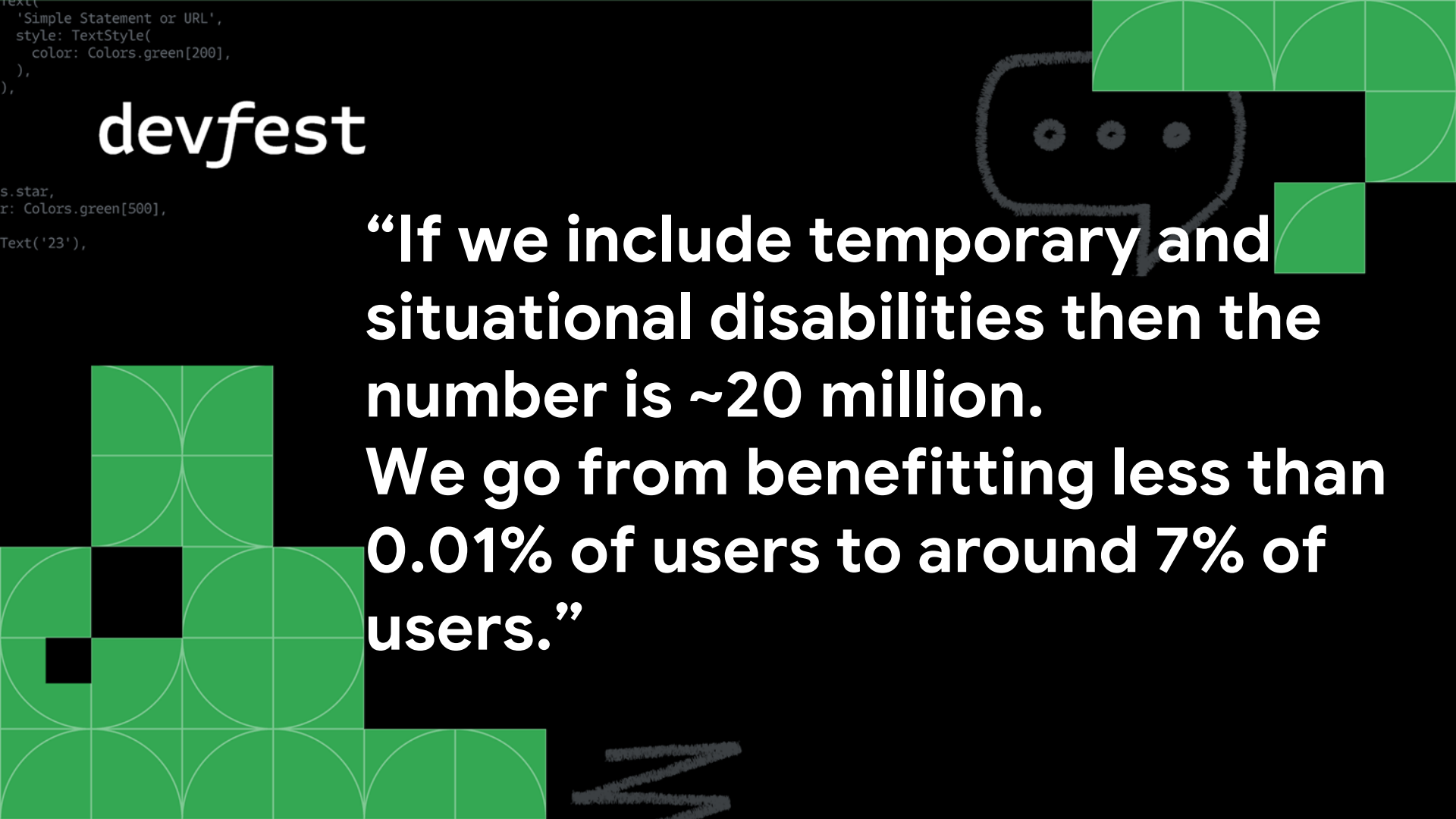
	Permanent	Temporary	Situational
Touch	One arm	Arm injury	New parent
See	Blind	Cataract	Distracted driver

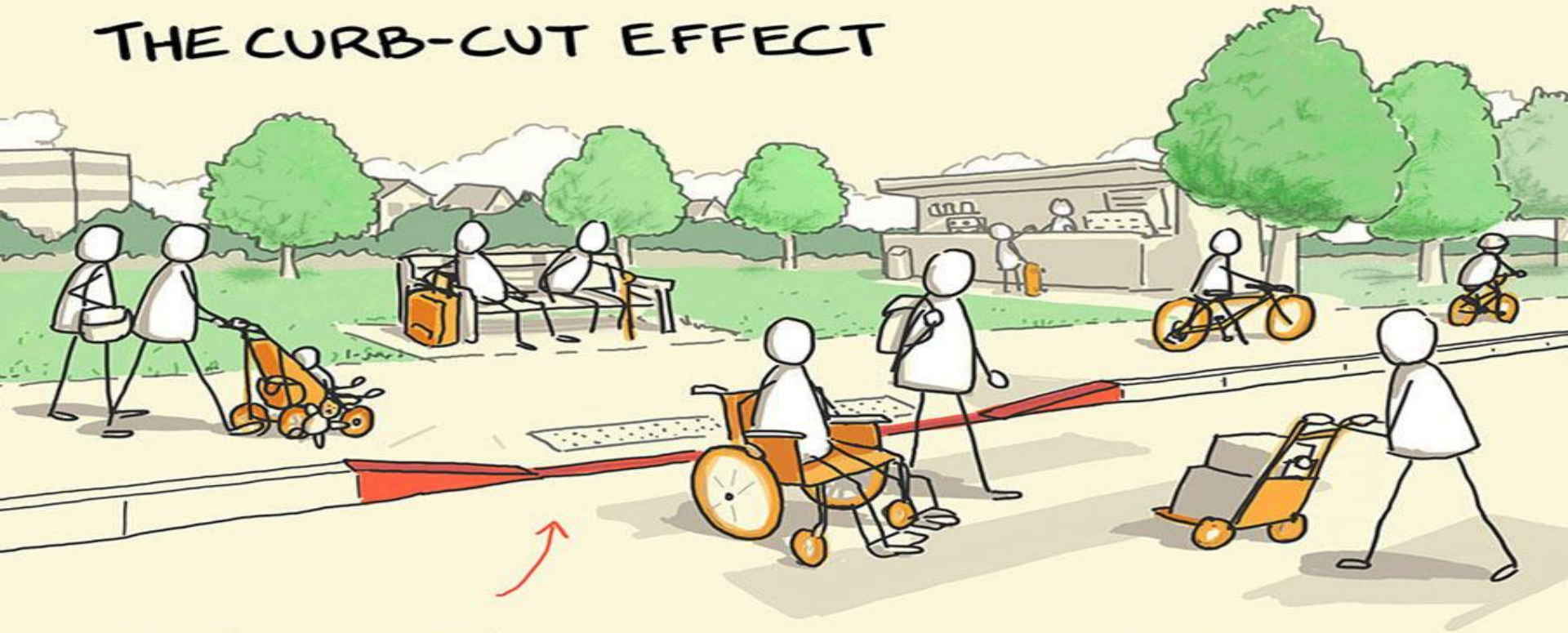
	Permanent	Temporary	Situational
Hear	Deaf	Ear infection	Bartender
Speak	Non-verbal	Laryngitis	Heavy accent

Microsoft

@abbott567


'Simple Statement or URL',
style: TextStyle(
color: Colors.green[200],
),
),
devfest
s.star,
r: Colors.green[500],
Text('23'),
“If we include temporary and situational disabilities then the number is ~20 million.
We go from benefitting less than 0.01% of users to around 7% of users.”

THE CURB-CUT EFFECT

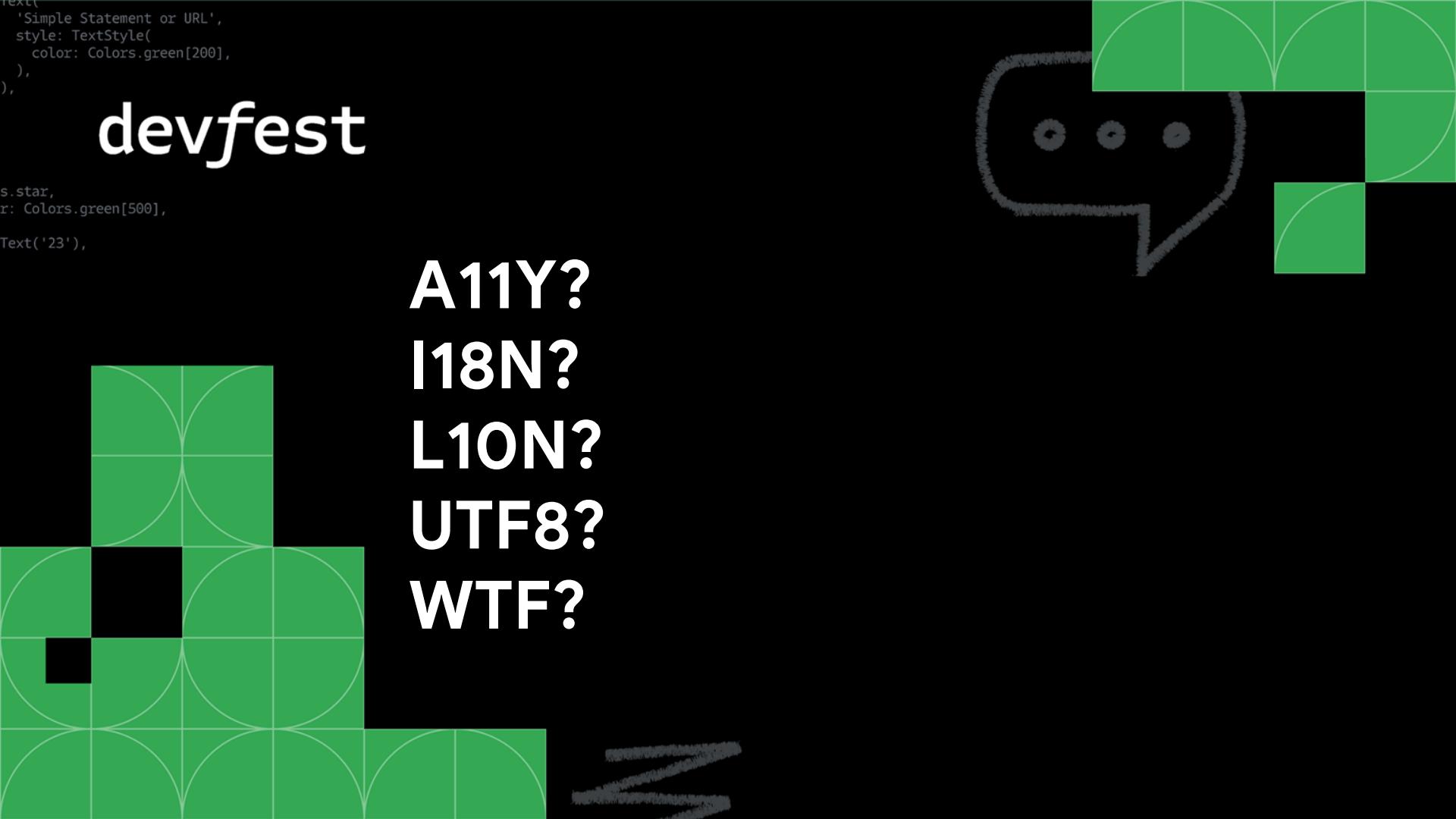


WHEN WE DESIGN
FOR DISABILITIES

... WE MAKE THINGS
BETTER FOR EVERYONE

sketchplanations

'Simple Statement or URL',
style: TextStyle(
color: Colors.green[200],
),
),
devfest
s.star,
r: Colors.green[500],
Text('23'),
Not legally required until 1990 with the signing of Americans with Disabilities Act.


'Simple Statement or URL',
style: TextStyle(
color: Colors.green[200],
),
),
devfest
s.star,
r: Colors.green[500],
Text('23'),
A11Y?
I18N?
L10N?
UTF8?
WTF?

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A11y is a Movement, Not Just an Abbreviation!

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Accessibility ≠ Disability

...and i should care, why?

- Low bandwidth or older tech/devices
- Low literacy or not being fluent
- New or infrequent users
- Difficulty clicking small targets
- Elderly people, People with Disabilities

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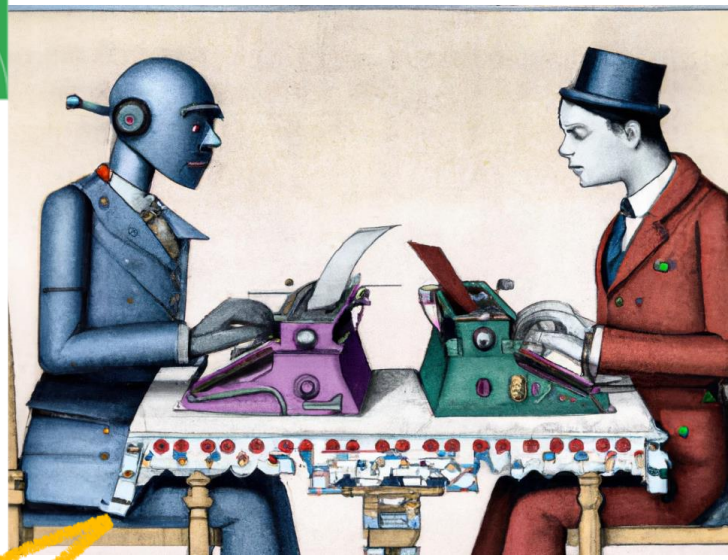
Mind who you're writing for.



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Source : Worcestershire County Council

SCULPT Framework

1. Structure (use headings and styles)
2. Colour and contrast
3. Use of images
4. Links
5. Plain English
6. Tables

Structure

- Structure is the way content within documents is organized.
- Semantic HTML: Use semantic HTML to structure your documentation. This helps screen readers and other assistive technologies understand the content better.

Structure

- Sighted users can scan a page for large or bold text to identify headings,
- Non-sighted users who rely on screen readers miss these visual cues. Adding section heading styles to your documents provides important semantic structure that screen readers can access.
- Don’t use text size or emphasis (bold, underline, italic) as the sole means of identifying a heading.

Structure

- Assign headings based on their hierarchy in the document.
- The main title or description of the document should be assigned Heading 1.

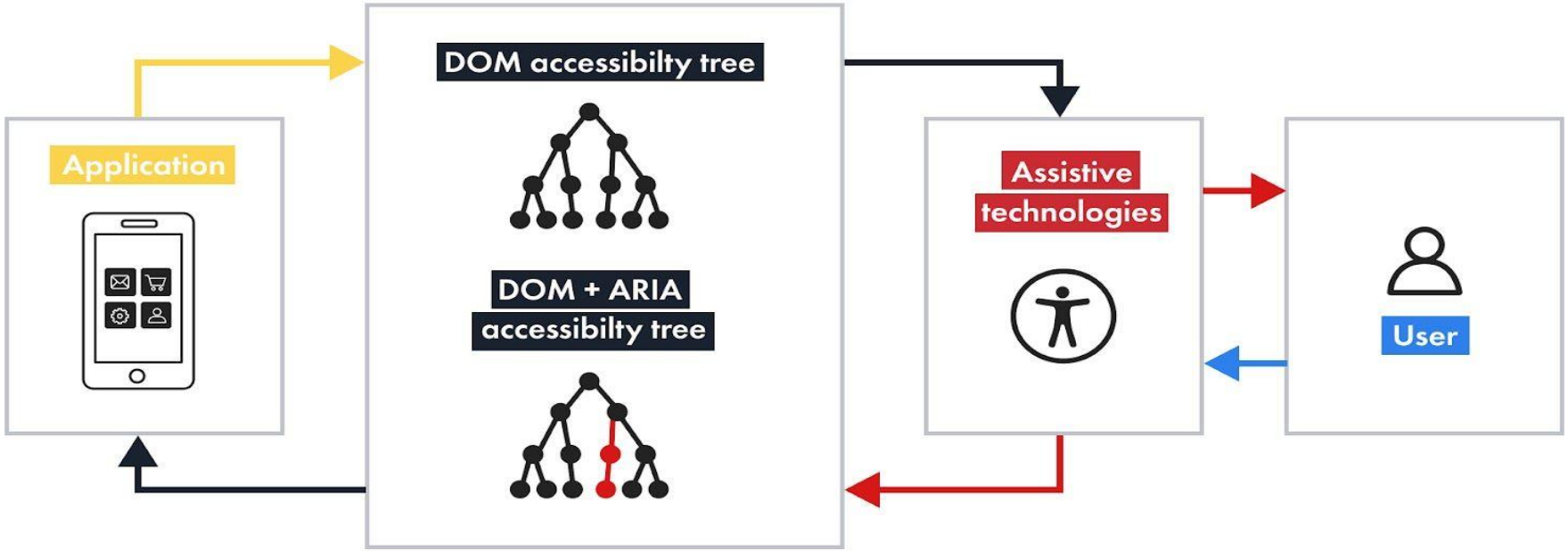
There should only be one Heading 1 element in your document.
Sub-headings of equal importance should follow as Heading 2.
These can be thought of as the main chapters of the document.
Headings at level 3 would break off from a Heading 2 element.
Any further sub-headings should continue this pattern (Heading 4, etc.).
Never skip a heading level (e.g., don’t go directly from a Heading 1 to a Heading 3).

Accessible Rich Internet Applications (ARIA) tags

- Role : What kind of element it is by checking its role, e.g., checkbox;
- State : What state the element is in, e.g., checked/not checked;
- Value: default or currently selected item
- Name : The name of the element, e.g., “Sign up for our newsletter”
- If you can use HTML a native HTML element or attribute, then do so

Demo

Using ARIA to Increase Digital Accessibility



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Source : TestDevLab

Colour and contrast

- Colours on a screen can seem less vibrant in bright light, or sunshine.
- Contrast and resolution can vary greatly between screen and projectors.
- A very good contrast ratio (foreground text=black, background=white, ratio=21:1)
- A satisfactory contrast ratio (foreground text=#6C6C83, background=white, ratio=5.1:1)
- A failing contrast ratio (foreground text=#A6A6A6, background=white, ratio=2.4:1)

Colour and contrast

- Ensure that colour is not your only means of conveying information.
- Incorporate alternate means of communication—use labels, texture, shapes, and patterns—to prevent confusion among people with color blindness.

Colors alone

Inaccessible

Course #	Name
Algo 101	Introduction to Algorithms
Networking 101	Topology and Networking
Gardening 101	Soil therapy for beginners

Red-green color blind?

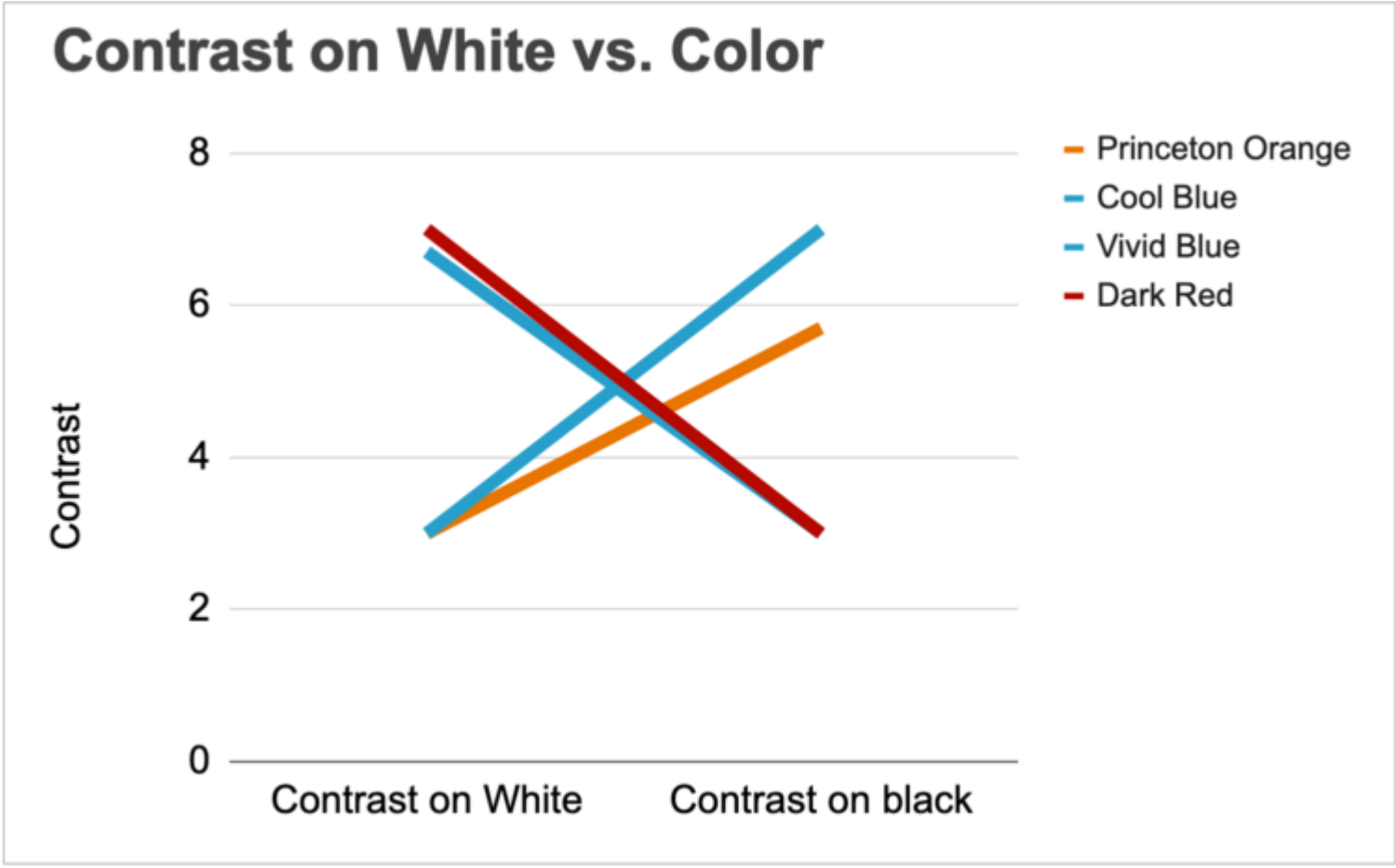
Colors alone

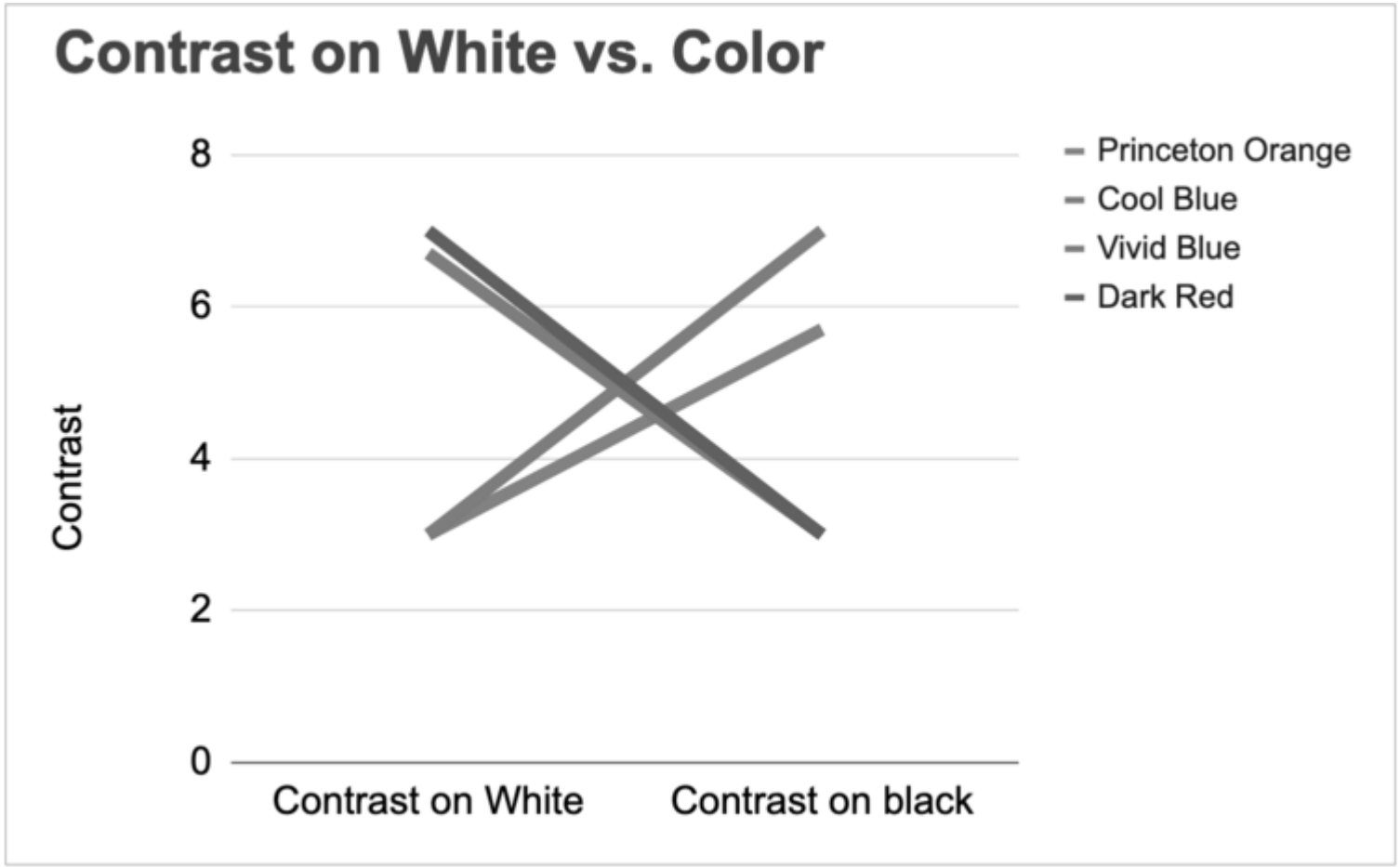
Course #	Name
Algo 101	Introduction to Algorithms
Networking 101	Topology and Networking
Gardening 101	Gardening for beginners

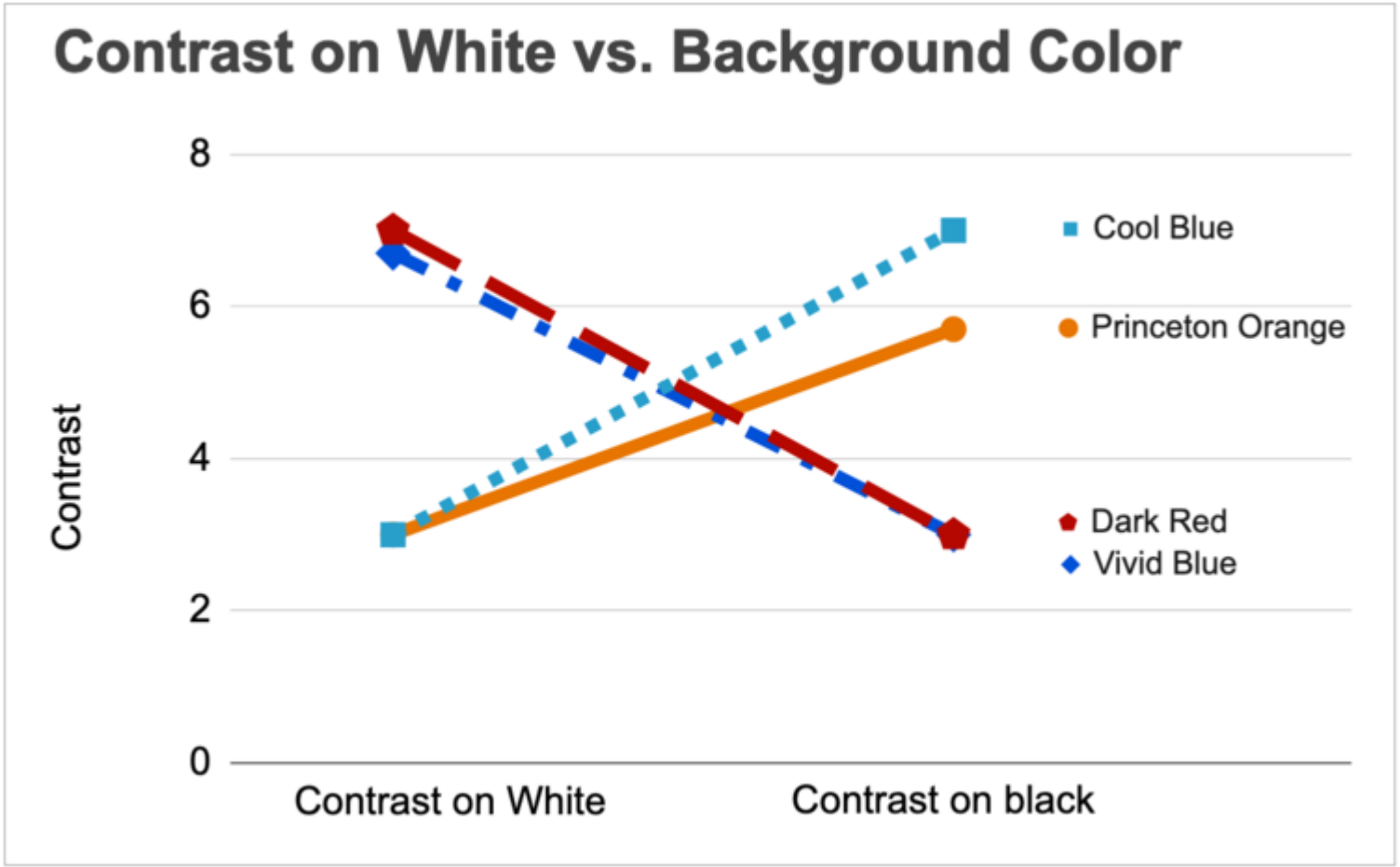
Alternate means of communication

Accessible Example ✓

Course #	Name	Required
Algo 101	Introduction to Algorithms	Yes
Networking 101	Topology and Networking	No
Gardening 101	Gardening for beginners	No

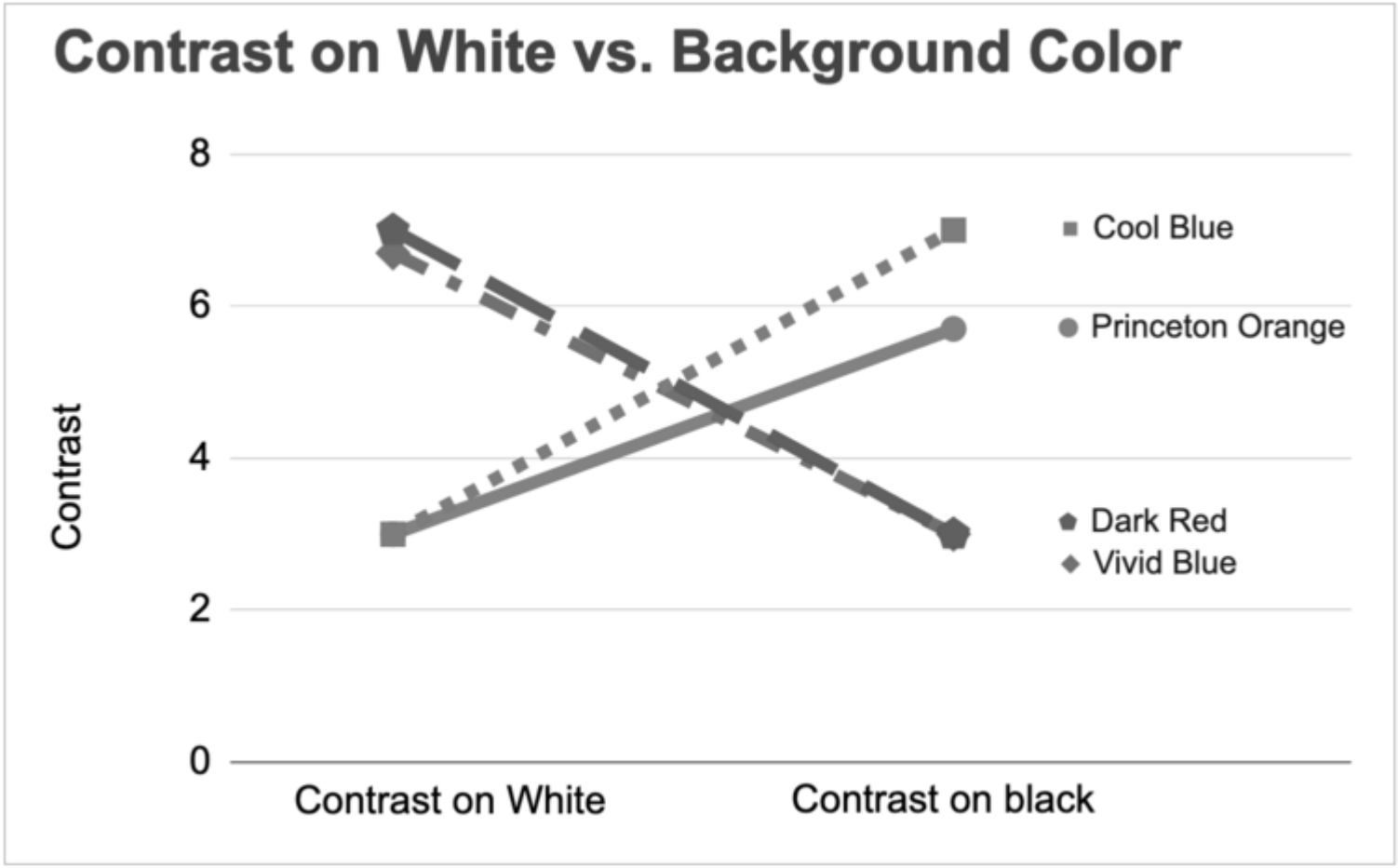

Contrast on White vs. Color
8
6
4
2
0
Contrast
Contrast on White
Contrast on black
Princeton Orange
Cool Blue
Vivid Blue
Dark Red


Contrast on White vs. Color
8
6
4
2
0
Contrast
Contrast on White
Contrast on black
Princeton Orange
Cool Blue
Vivid Blue
Dark Red

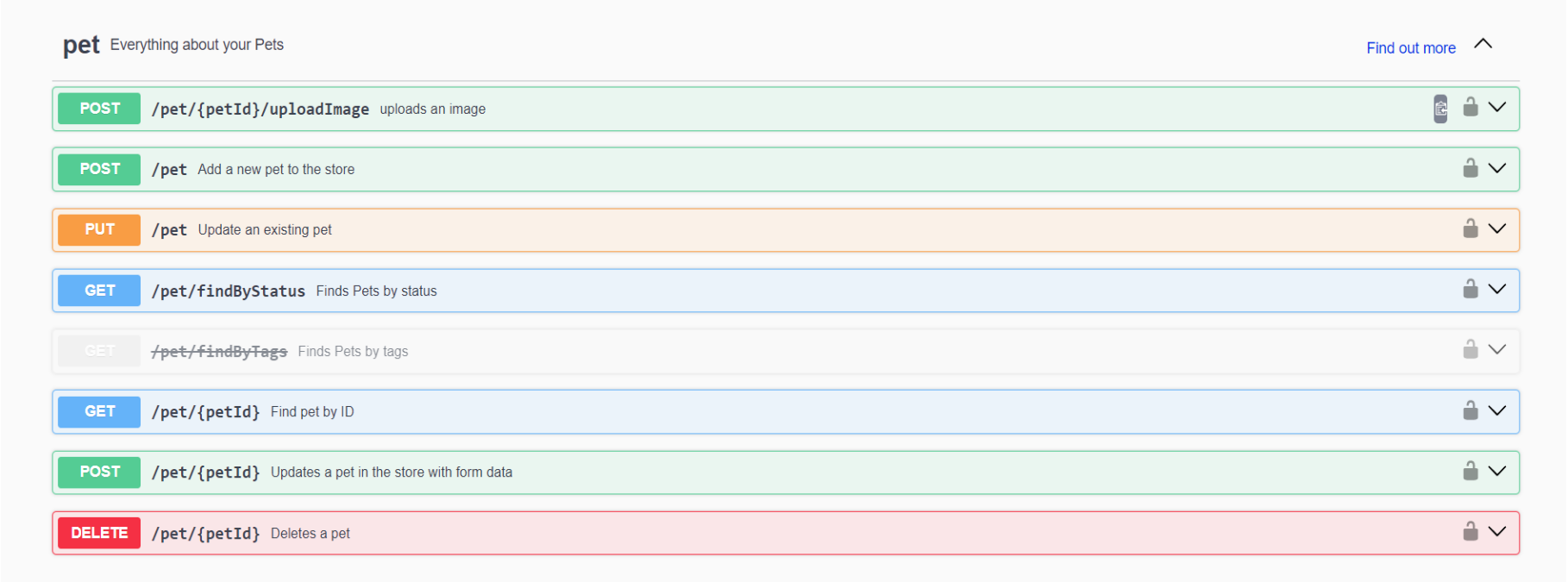

Contrast on White vs. Background Color
8
6
4
2
0
Contrast
Contrast on White
Contrast on black
Cool Blue
Princeton Orange
Dark Red
Vivid Blue

Colors and Contrast - Recommendation

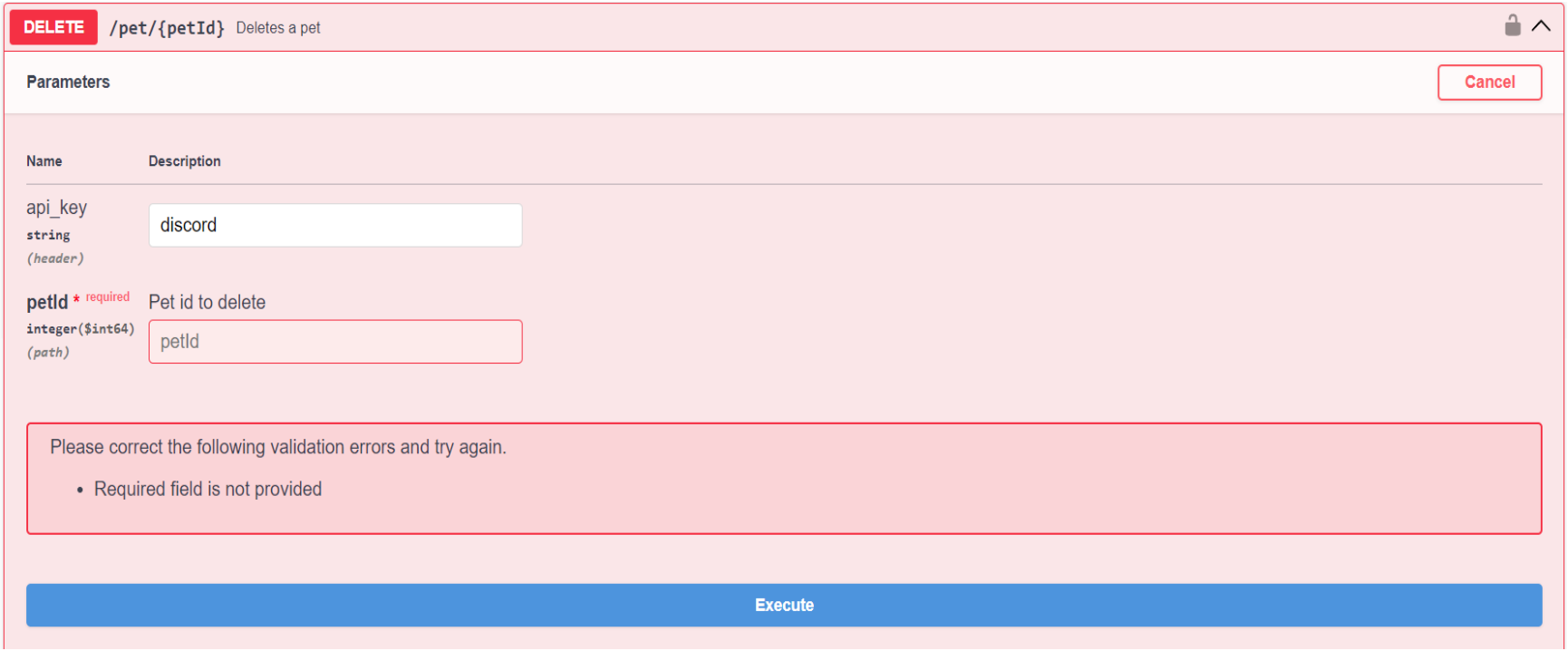
- Flipping your design or website into grayscale.
- Reviewing the design in grayscale will allow you to identify any elements that become more challenging to understand when color is stripped away.


Contrast on White vs. Background Color
8
6
4
2
0
Contrast
Contrast on White
Contrast on black
Cool Blue
Princeton Orange
Dark Red
Vivid Blue

Swagger Pet store API



Swagger


DELETE
/pet/{petId} Deletes a pet
Parameters
Cancel
Name
Description
api_key
string
(header)
discord
petId * required
integer($int64)
(path)
Pet id to delete
petId
Please correct the following validation errors and try again.
Required field is not provided
Execute

Swagger

Use of images

- Use images that support the text
- Never use an image instead of text
- Use correct image sizes (on the web it is best to have images around 150kb)
- Use alt text on images
- When text that is intended to be read is presented as an image, screen readers and other assistive technologies cannot read text that’s contained inside an image. They will instead read the alt text provide!

Links (hyperlinks)

- Raise your hands if you have heard this before in your eLearning courses:

  “See below for...”.
  “Look back at...”.
  “Click here for more information...”.
  “Refer to the blue box for...”.

Links (hyperlinks)

- A full website address written like this:

"https://www.worcestershire.gov.uk/digital-worcestershire/sculpt-accessibility"
Would be read out by a screen reader like this:
h t t p s colon forward slash forward slash w w w dot .....

- Use more descriptive display text like **Sculpt Accessibility page**.

Plain English

- Try to aim for an average reading age of 12.
- Plain English helps as many users as possible to understand your content.
- Plain English means avoiding using hard to understand language, such as jargon, unexplained acronyms and long words.

Plain English

- Use exact measurements when appropriate, such as “three” instead of “a few”.
- Use nouns instead of pronouns for third person references, even if it means being repetitive.
- Avoid assuming that users already know how to do things.

Table Structure

- Tables really should be used for data and **not** used to facilitate page or document layouts.
- When using tables to present data or information make sure you use a simple table structure with column headers, making sure that the tables don't contain split cells, merged cells, or nested tables (tables within tables).

Table Structure

- Poorly formatted table make it very difficult for screen readers to navigate.
- Just imagine if you could only use the arrow keys on your keyboard to tab through the table, could you logically tab up, down and left to right to get to every single cell logically and easily? If not, it's not accessible.

The basic six things to consider when creating accessible information

Structure (heading styles)

Use heading styles in your document such as H1, H2, H3

Colour & contrast

The colours you use and the contrast between text and background

Use of images

Use alternative (alt) text on your images

Links (hyperlinks)

Describe your link, never use click here

Plain English

Use clear uncomplicated language with no jargon

Table structure

Use simple tables without merged or split cells

S C U L P T

Best Practices

- **Make large, clickable areas**
- Not only does this help users with impaired vision or movement, it also helps users on touchscreen devices.
- Avoid jargon, ambiguity, or assumptions

Tools

Lighthouse in Chrome DevTools

CLEARING A PATH
FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!

```
Text(
  'Simple Statement or URL',
  style: TextStyle(
    color: Colors.green[200],
  ),
),
```

devfest

```
s.star,
r: Colors.green[500],

Text('23'),
```