

Accessible Forms: It's Not as Difficult as You Think

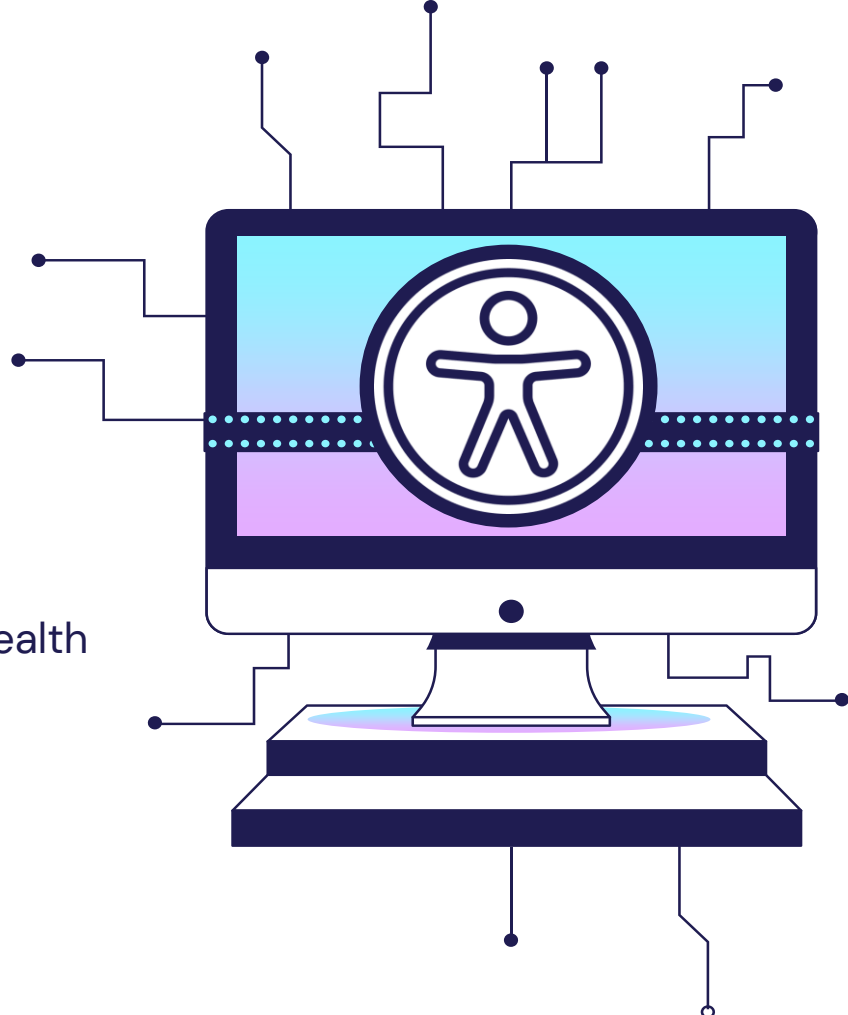
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My thoughts are my own!



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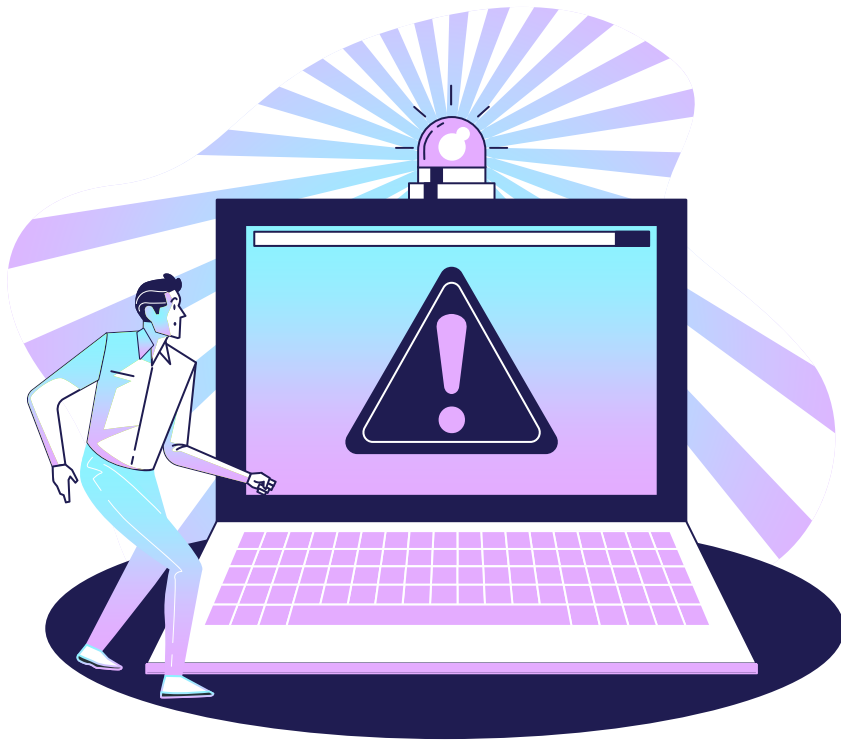
Creating Accessible Forms

- **Inclusive Design**
 - Color
 - Instructions and labels
- **Form Structure**
 - HTML form elements
 - Input types
 - Autocomplete attributes
- **Form Validation**
 - Error Handling

What is Web Accessibility?

The Web is fundamentally designed to work for all people, whatever their hardware, software, language, location, or ability.

- W3C



What makes a form accessible?

- Inclusive Design
- Consider different technologies
- Ensure it works for everyone



How to get started?

- **Start Small**
Get easy Wins!
- **Design Rules**
Follow inclusive design best practices
- **Proper Semantics**
Use correct structure and markup semantics for the job
- **Test Keyboard Access**
All interactive elements must be operable via the keyboard

Inclusive Design

Design considerations for forms

Use of Color

Color is not used as the only visual means of conveying information

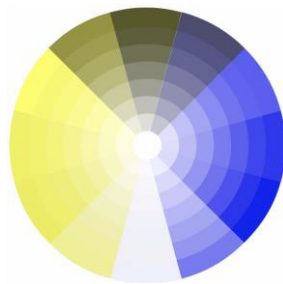
Color Wheel



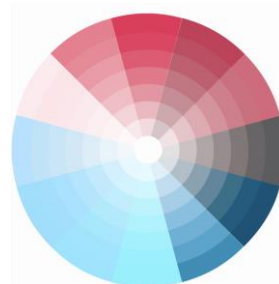
Deuteranopia



Protanopia



Tritanopia



Grayscale



Meet Color Contrast

<u>Color Contrast Checker</u>	WCAG 2.1 Standards	
	AA	AAA
Normal Text	4.5:1	7:1
Large Text *	3:1	4.5:1
User Interface	3:1	

* Large text is defined as 14 point (typically 18.66px) and bold or larger, or 18 point (typically 24px) or larger

Color Demo

Chrome developer tools

- Inspect element
- Open element Styles
- Use color tool to update color



Labels and Instructions

- Indicate required fields
- Avoid using hidden text
- Instructions are clear
- Every input has a descriptive label
- Keep labels and instructions close to the input field
- Placeholders are not used to provide important information
- Use appropriate semantics to programmatically pair information

Required Fields Demo

Red Required Fields Example

Required Fields Example



Accessible Naming

- **Aria-label**
 - Provides essential information about an object
- **Aria-labelledby**
 - Establishes relationships between objects (by ID)
- **Aria-describedby**
 - Provides extended information that the user might need (by ID)

Accessible Naming Demo

Instructions Example

ARIA Labels Example



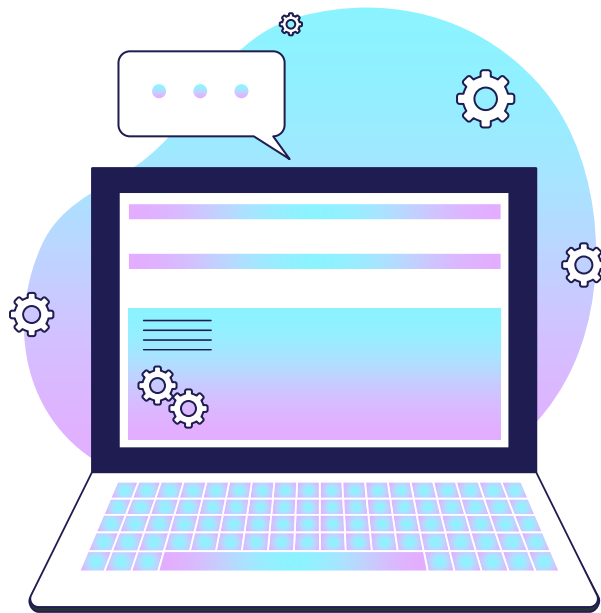
Form Structure

Technical considerations for forms

Form Elements

Form element can contain:

- `<input>`
- `<label>`
- `<select>`
- `<textarea>`
- `<button>`
- `<fieldset>`
- `<legend>`
- `<datalist>`
- `<output>`
- `<option>`
- `<optgroup>`



Form Controls Example

Form Controls Example



HTML Input Types

Input Purposes for User Interface Components

<input type="button">

<input type="checkbox">

<input type="color">

<input type="date">

<input type="datetime-local">

<input type="email">

<input type="file">

<input type="hidden">

<input type="image">

<input type="month">

<input type="number">

<input type="password">

<input type="radio">

<input type="range">

<input type="reset">

<input type="search">

<input type="submit">

<input type="tel">

<input type="text">

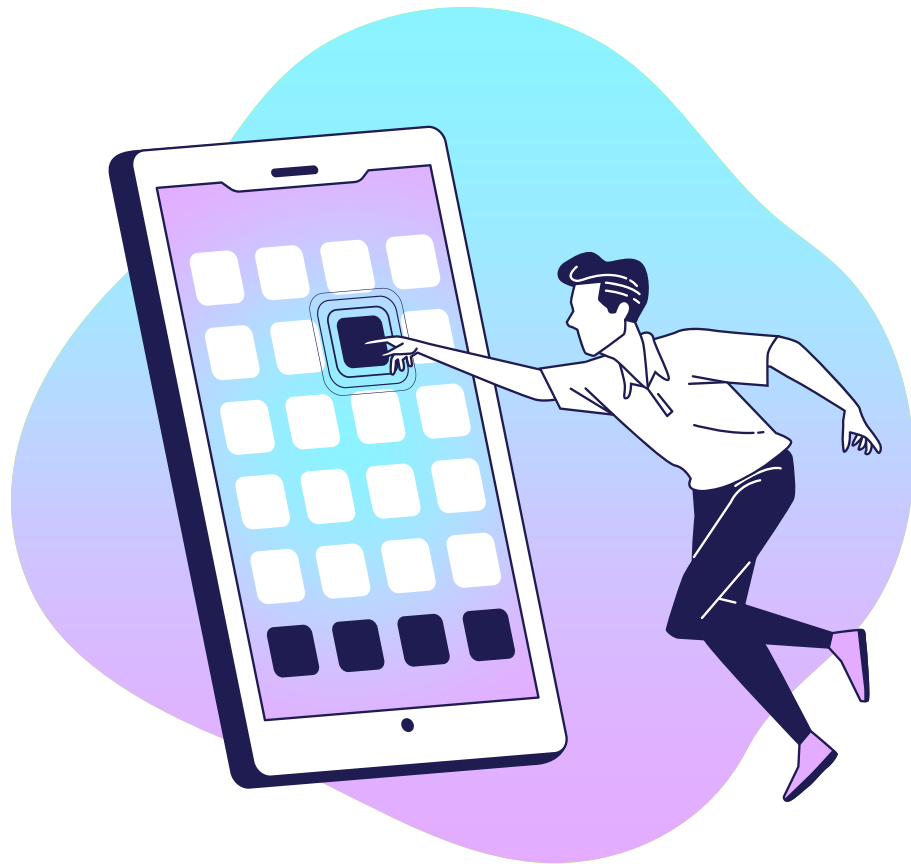
<input type="time">

<input type="url">

<input type="week">

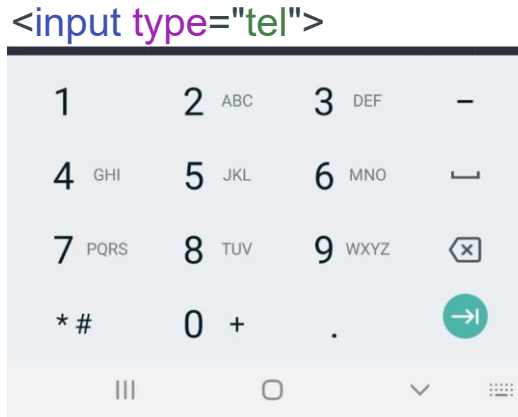
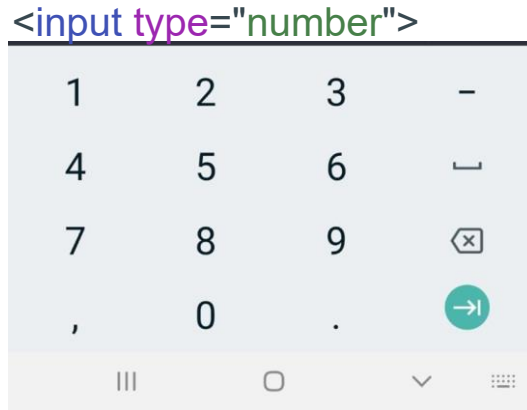
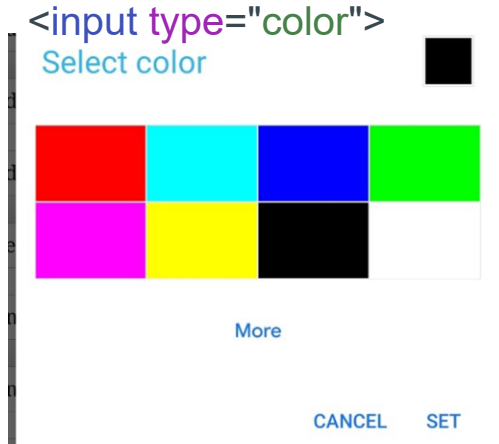
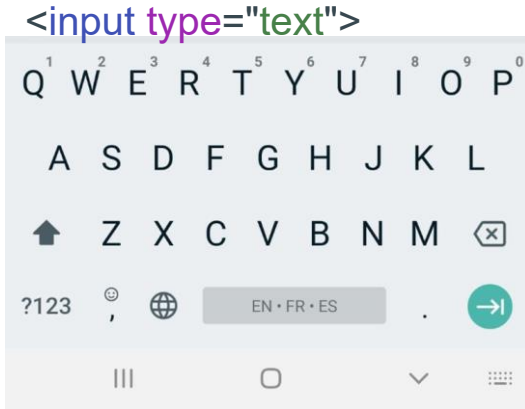
Mobile

Consider the mobile experience



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Mobile Input Types



Input Assistance Considerations

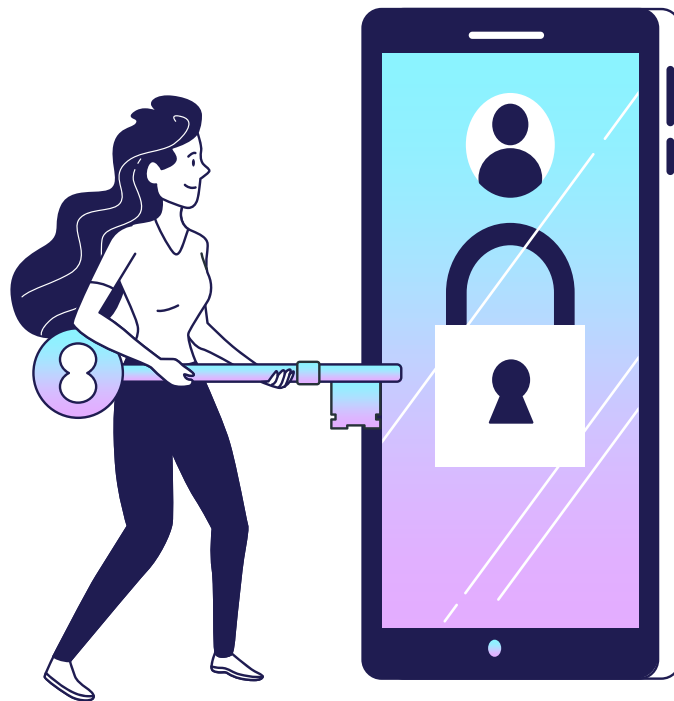
- Provide suggestions for correction whenever possible
- Provide corresponding autocomplete attribute
 - List of Input Purposes (Autocomplete values)

Form Validation

Provide guidance for errors

Why Validate?

- Get the right data
- Protect our users
- Protect ourselves



Error Handling

- Provide descriptive errors messages when error is detected
- For long forms, add list of descriptive errors as links to corresponding fields upon submit
- Announce errors using ARIA live regions
- Announce when long list of criteria is met

ARIA Live Regions

Used to announce non-interactive content changes

Aria-live="assertive"

- Updates announcement interrupt user flow

Aria-live="polite"

- Updates announcement when user is idle

Aria-live="off" (default)

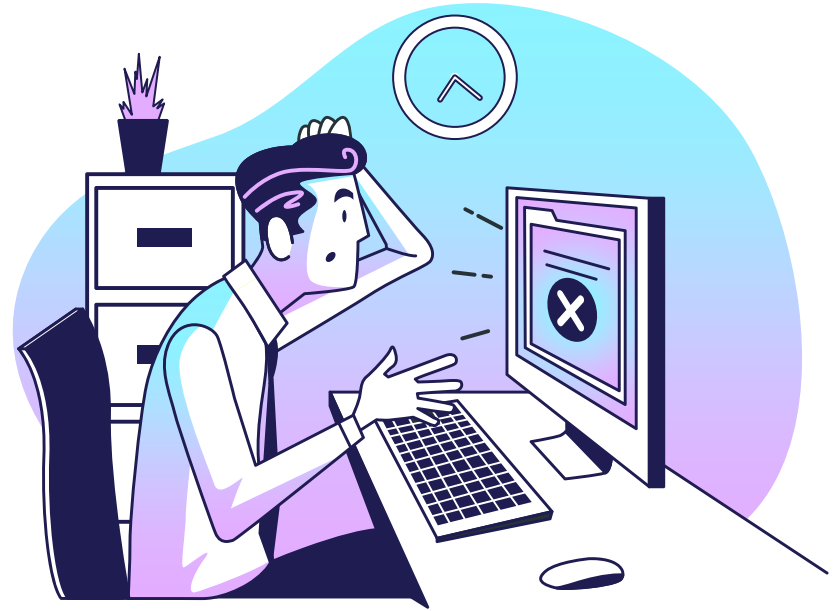
- Turned off

Accessible Forms Activity

- Required Fields Example
- Accessible Form Example



Got Questions?



Resources

- ◇ [Full list of Input Purposes for User Interface Components](#)
- ◇ [ARIA Roles, States & Properties](#)
- ◇ [Web Content Accessibility Guidelines \(WCAG\) 2.1](#)
- ◇ [WAI-ARIA Authoring Practices 1.2](#)



Activities Resources



- ◇ Red Required Fields Example
- ◇ Required Fields Example
- ◇ Instructions Example
- ◇ ARIA Labels Example
- ◇ Form Controls Example
- ◇ Accessible Form Example

