

Accessibility Barriers & Best Practices for Banking Websites

Welcome! Let's learn about accessibility and banking.

Not too many years ago, if you wanted to manage your finances, you had to put on pants and drive to the bank. Thanks to the internet, that is no longer the case.

(The driving part. Wearing pants in public is still advisable.)

Everything can be done online! You can open new accounts, deposit a check, monitor your savings, apply for a personal loan or credit card, and much more.

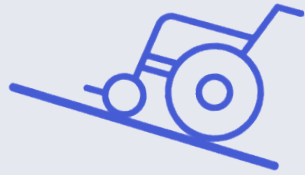
Everything can be done online... unless you are a person with a disability and the website or mobile app is not accessible.

More than 1 in 8 Americans have a disability. That number grows every day. The baby boomer generation is transitioning into retirement and beginning to experience age-related disabilities—like decreased vision or arthritis—that can make using technology challenging.

Whether it's an individual with social anxiety, legal blindness, an injury, or a severe hand tremor, every banking customer deserves the ability to maintain the privacy of their financial information and independently manage their funds.

What is accessibility?

Here is a quick guide to help you sort out the differences between types of access.



Physical Accessibility

Your brick & mortar locations have accessible parking spaces, wheelchair ramps, and other features in order to comply with the Americans with Disabilities Act (ADA).



Digital Accessibility

When a website or mobile app is accessible, it closes the gap between a person's abilities and the task at hand. It does this by conforming to the [Web Content Accessibility Guidelines \(WCAG\)](#).



Website Uptime

If your web server goes down, your bank's website is accessible to no one.

If your website went down, most people could drive to a local branch. But for someone with a disability, that could involve any number of inconveniences including finding a ride, bringing an assistant, or scheduling a sign language interpreter. This is why online services are so life-changing for people with disabilities: they empower them to do these things independently.

How accessible is your bank's website?

An accessibility audit is the best way to determine your site's level of WCAG compliance. During an audit, a combination of automated and manual testing will be done. You will receive a report that shows what you are doing well and the specific areas that need remediation.

Accessibility Challenge 1:

Sign up for a new bank account online.

Meet your customer:

Andrea has been blind since birth. She has a guide dog, Tucker, who helps her get around in the physical world. To read on the internet, Andrea uses the JAWS screen reader and her refreshable Braille display. She uses VoiceOver on her iPhone and iPad.

"I'm trying to fill out the application, but the form fields aren't labeled, so JAWS (my screen reader) is not telling me what information I should type into what field."

WCAG Success Criterion

[3.3.2 Labels or Instructions](#) (Level A): [Labels](#) or instructions are provided when content requires user input.

Best Practice

Simple instructions or cues for entering input must be provided. Without this information, users may incorrectly enter data and have difficulty recovering from a mistake.

Note: The HTML5 attribute `placeholder` is not a substitute for a form field label. The placeholder text may not be detected by assistive technologies and is not shown once data is entered into a field. In addition, the light-colored text may not be legible by people with low vision.

The screenshot shows a 'New Account' form with the following fields: 'First Name', 'Last Name', 'Username', 'E-mail Address', and 'Date of Birth'. The 'Date of Birth' field is a date picker with a question mark icon in the dropdown arrow, indicating a lack of clear instructions. There is also a checkbox for 'I agree with the Terms and Conditions and the Privacy Policy' and a 'Create Account' button.

✗ Non-Compliant Code Example

```
<input  
  type="text"  
  placeholder="Birthday (mm/dd/yyyy)"  
  title="Birthday (mm/dd/yyyy)"  
>
```

✓ Compliant Code Example

```
<label for="birthday">Birthday (mm/dd/yyyy)</label>  
<input  
  type="text"  
  id="birthday"  
  placeholder="Birthday (mm/dd/yyyy)"  
  title="Birthday (mm/dd/yyyy)"  
>
```

Accessibility Challenge 2:

Pay bills using online banking.

Meet your customer:

Frankie has arthritis in her hands. While she used to be able to use her computer without any problems, lately she cannot use a mouse or do much typing. She uses a speech-to-text program (Dragon NaturallySpeaking) to use the internet.

"It's a guessing game! The button at the bottom of the Add a Bill form says, 'Add a Bill' but when I ask Dragon to click on Add a Bill, it doesn't click that button. It took some guessing, but it turns out I had to ask Dragon to click Submit."

WCAG Success Criterion

[2.5.3 Label in Name](#) (Level A): For [user interface components](#) with [labels](#) that include [text](#) or [images of text](#), the [name](#) contains the text that is presented visually.

Best Practice

The accessible name for a button needs to match the text of its visual text label. When the accessible name does not match the visible text label, users cannot access that button until they guess its correct name.

✗ Non-Compliant Code Example

```
<button aria-label="Submit">Add a Bill</button>
```

✓ Compliant Code Example

```
<button>Add a Bill</button>
```

Accessibility Challenge 3:

Apply for a personal loan.

Meet your customer:

Emile uses an automated wheelchair and has limited dexterity in his arms and hands. He uses a switch to use his computer and iPad. Switch devices allow a person with limited mobility to input information by tapping two buttons—one to scroll and one to select. Emile’s device consists of two large buttons on his wheelchair that he can bump with his arms.

The screenshot shows a 'Loan Application' form with a progress bar at the top. The progress bar has four segments: the first three are green with checkmarks, and the fourth is red with an 'X'. Below the progress bar are input fields for Name, Account Number, Address, Phone Number, and Email Address. At the bottom, there is a checkbox labeled 'I accept the Terms and Conditions' and a 'Submit' button. A red error message box is overlaid on the checkbox, stating: 'Please check this box if you want to proceed.'

"I am so ----- mad! I filled out the entire form to apply for a loan. I got to the end of the page where it said to check off that I accepted the terms and conditions. BUT I COULDN'T CHECK THE BOX. It was impossible for me to navigate to the box in order to check it. All that work for nothing!"

WCAG Success Criterion

2.1.1 Keyboard. All [functionality](#) of the content is operable through a [keyboard interface](#) without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user’s movement and not just the endpoints.

Best Practice

When an element is interactive, it must be focusable via the keyboard or a shortcut provided to activate the element. This is important for people who usually do not use a mouse, like screen reader users, keyboard-only users, and switch users.

Quick test: Try navigating your website without a mouse. Use the tab key to move and space bar to select.

✗ Non-Compliant Code Example

```
<div onclick="markAsChecked()">[]</div>  
<div>I accept the terms and conditions.</div>
```

✓ Compliant Code Example

```
<div  
  role="checkbox"  
  aria-checked="false"  
  tabindex="0"  
  aria-labelledby="terms-label"  
  onclick="markAsChecked()"  
  onkeydown="handleKeyDown()">[]</div>  
<div id="terms-label">I accept the terms and conditions.</div>
```

Accessibility Challenge 4:

Deposit a check via mobile banking.

Meet your customer:

Isaac is a tech-obsessed grandpa who has limited use of his left arm as a result of a stroke. He's right-handed, so for the most part, he does pretty well on his laptop and his Android phone.

"Mobile check deposit is impossible without two hands. I can either hold the phone in position or I can press the button to take the photo, but I can't do both. I've even tried tapping the button with my nose, but then my hand moves and the photo is blurry."

WCAG Success Criterion

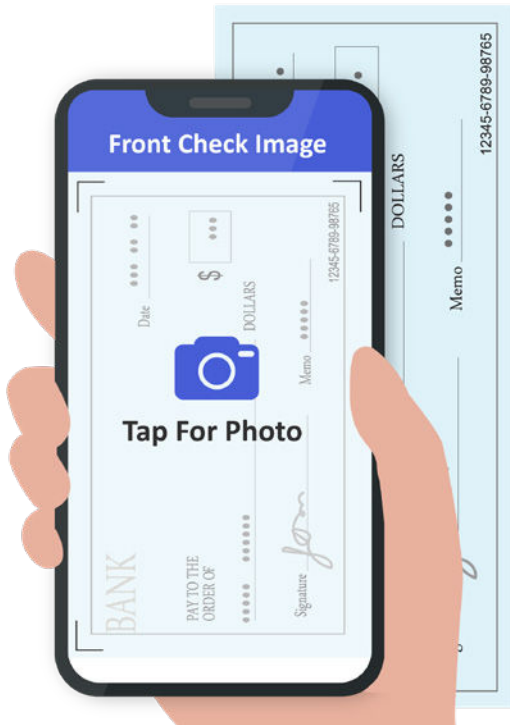
No one WCAG Success Criterion applies to Isaac's situation. A few criteria are relevant:

- [1.3.4 Orientation](#) (Level AA): Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is [essential](#).
- [2.5.4 Motion Actuation](#) (Level A): [Functionality](#) that can be operated by device motion or user motion can also be operated by [user interface components](#) and responding to the motion can be disabled to prevent accidental actuation, except when:
 - **Supported Interface:** The motion is used to operate functionality through an [accessibility supported](#) interface;
 - **Essential:** The motion is [essential](#) for the function and doing so would invalidate the activity.
- [2.5.1 Pointer Gestures](#) (Level A): All [functionality](#) that uses multipoint or path-based gestures for operation can be operated with a [single pointer](#) without a path-based gesture, unless a multipoint or path-based gesture is [essential](#).

But all of these could pass during automated testing. This is why usability testing is so important.

Best Practice

Many banks have improved the mobile check depositing experience by automatically capturing the photo once the check is centered in the frame. This also helps customers with tremors who need to steady their phone with both hands.



Accessibility Challenge 5:

Apply for a credit card.

Meet your customer:

Leticia recently moved to the United States to live with her daughter and son-in-law and care for her new grandson. She's still learning English and knows enough to get by for her daily activities. Financial jargon, however, is difficult.

"I have to keep looking up words in my Spanish-English dictionary. Some of the definitions don't even make sense to me. I wish there was help on the website."

WCAG Success Criterion

[3.1.3 Unusual Words](#) (Level AAA): A [mechanism](#) is available for identifying specific definitions of words or phrases [used in an unusual or restricted way](#), including [idioms](#) and [jargon](#).

Best Practice

Developers should provide a method to identify and define industry-specific words and phrases. This can be done by:

1. Providing the definition of the word when it first occurs
2. Providing a definition in a footnote or a tooltip
3. Providing a link to a glossary including the words/phrases

✓ Compliant Example

The screenshot shows a form with a yellow 'Total Gross Income' input field. A question mark icon is positioned to the right of the field, with a tooltip box containing the text: "All yearly earnings before taxes." Below the input field is a checkbox labeled "I agree with the Terms and Conditions and the Privacy Policy" and a blue "Submit Application" button.

The screenshot shows a "Prequalification" form with the following fields: "First Name" and "Last Name" (text boxes with dots), "E-mail Address" (text box with dots), "Address" (text box with dots), "Date of Birth" (dropdowns for Month, Day, Year), "Employer Name" (text box with dots), and "Total Gross Income" (text box with a cursor). At the bottom, there is a checkbox labeled "I agree with the Terms and Conditions and the Privacy Policy" and a blue "Submit Application" button.

Accessibility Challenge 6:

Use a retirement income calculator tool.

Meet your customer:

Benji has low vision. They use a screen magnifying program or pinch-to-zoom feature to make the text on their screen large enough to read. They use the NVDA screen reader when they need to read large amounts of text because it's much faster.

"The help text for the retirement income calculator is printed inside the form field, but the contrast is so low, I can't make out what it says."

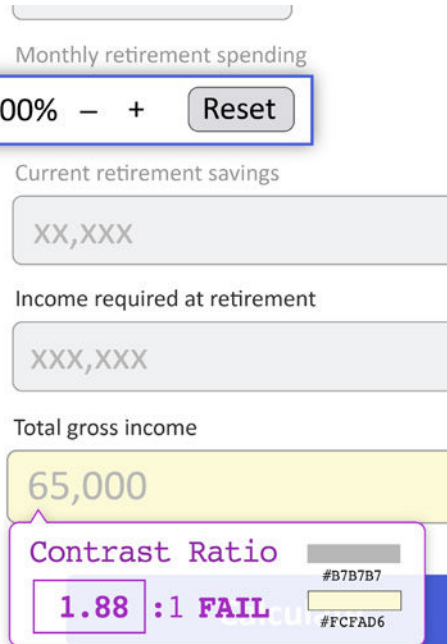
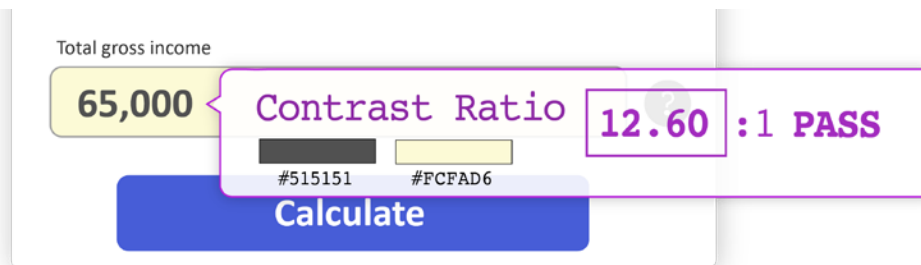
WCAG Success Criterion

[1.4.3 Contrast \(Minimum\)](#) (Level AA): The visual presentation of [text](#) and [images of text](#) has a [contrast ratio](#) of at least 4.5:1.

Best Practice

To achieve 4:5:1 contrast between a form field and placeholder text, specify the placeholder text color in the site's CSS. If the color is not specified, most browsers default to a light gray, which is often unreadable by people with low vision.

✓ Compliant Example



Accessibility Challenge 7: Research home improvement loans.

Meet your customer:

Martin has Parkinson's disease and recently his hand tremors have become so severe that he can no longer use a mouse. He uses his keyboard to navigate.

"I need a home equity loan to renovate my master bathroom. The fastest way for me to get where I'm going on any site is to use the search. On my bank's website, the search box autocompletes, kind of like Google. On Google, I can press the down arrow and select one of the options it suggests. That doesn't work on my bank's site."

WCAG Success Criterion

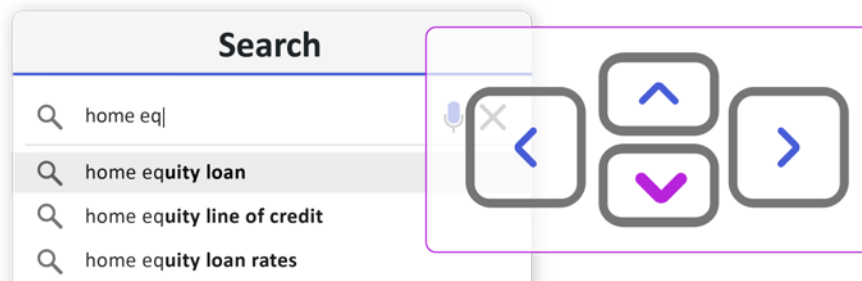
[2.1 Keyboard Accessible](#): Make all functionality available from a keyboard.

Best Practice

Provide keystrokes in accordance with the standard keyboard interaction patterns for the equivalent standard control.

Developers should ensure that keyboard access is provided to focus the element as well as keyboard access to interact with and activate the element. Visual keyboard focus should be apparent when the element is focused via the keyboard.

✓ Compliant Example

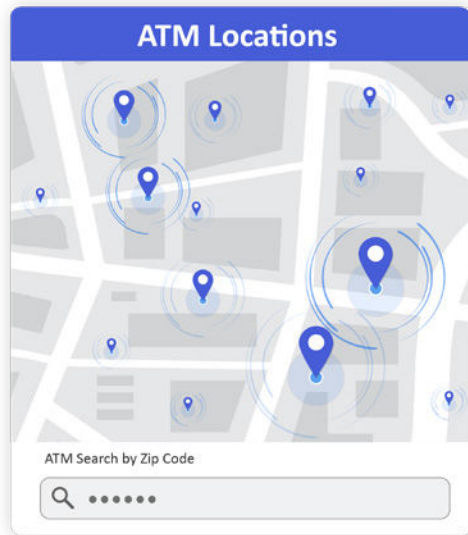


Accessibility Challenge 8:

Locate the nearest
branch or ATM.

Meet your customer:

Jennifer has a vestibular disorder which often leaves her feeling dizzy and nauseated. She tries to limit her screen time because certain types of animation on the web can make her feel physically ill.



"We just moved, so I visited my bank's website to find the nearest ATMs to our new place. I entered our ZIP code and the map started popping up with boxes. I felt a wave of nausea and had to turn away for a few seconds and close my eyes. Next time, I'll use Google Maps!"

WCAG Success Criterion

[2.3.3 Animation from Interactions](#) (Level AAA): [Motion animation](#) triggered by interaction can be disabled, unless the animation is [essential](#) to the functionality or the information being conveyed.

Best Practice

With most modern web browsers, users can customize their settings to say they prefer reduced motion. Developers can be kind to these users by including options for them in the CSS. The animation will show for all users except those who have specifically selected that they prefer not to see them.

✗ Non-Compliant Code Example

```
button {  
  animation-duration: 4s;  
  animation-name: slidein;  
}  
@keyframes slidein {  
  from {  
    margin-bottom: 100%;  
  }  
  to {  
    margin-top: 0%;  
  }  
}
```

✓ Compliant Code Example

```
@media (prefers-reduced-motion: reduce) {  
  button {  
    animation: none;  
  }  
}
```

Accessibility Challenge 9:

Read & download monthly statement.

Meet your customer:

Don is deaf-blind. He uses NVDA to read on his computer and has the audio connected to his cochlear implant.

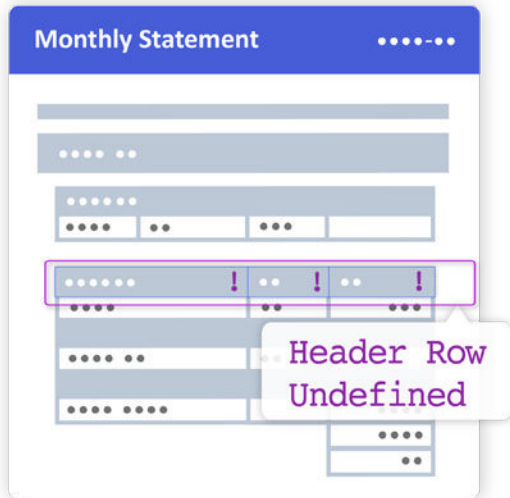
"My bank statements are a mess. There are sortable columns, but the headers are missing. So I can't sort by the name of the item or if something is a credit or debit. Best I can do is listen to everything. My last bank was worse. They used ARIA grid and NVDA didn't read any of that. Don't get me started on the PDFs. I can never read those."

WCAG Success Criterion

[1.3.1 Info and Relationships](#) (Level A): Information, [structure](#), and [relationships](#) conveyed through [presentation](#) can be [programmatically determined](#) or are available in text.

Best Practice

NVDA and VoiceOver do not support ARIA grid. An HTML table element is sufficient to create an accessible experience assuming that table headers are marked with the `<th>` tag.



✗ Non-Compliant Code Example

```
<div role="grid">
  <div role="row">
    <div role="gridcell">Merchant</div>
    <div role="gridcell">Transaction</div>
  </div>
  <div role="row">
    <div role="gridcell">Discover Card</div>
    <div role="gridcell">-$400</div>
  </div>
</div>
```

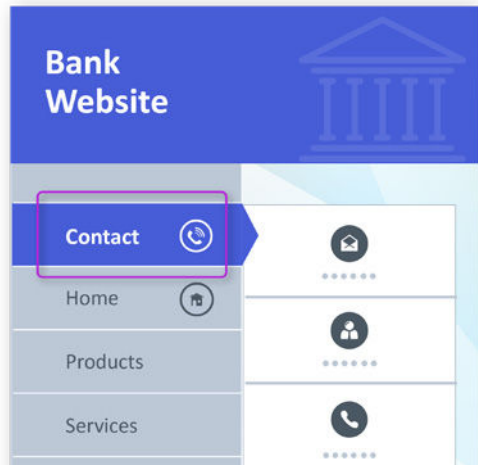
✓ Compliant Code Example

```
<table>
  <tr>
    <th scope="col">Merchant</th>
    <th scope="col">Transaction</th>
  </tr>
  <tr>
    <td>Discover Card</td>
    <td>-$400</td>
  </tr>
</table>
```

Accessibility Challenge 10: Contact Customer Service.

Meet your customer:

Nadim has low vision and uses JAWS on his work computer. At home, he uses TalkBack on his Samsung Galaxy Tab.



"The navigation menu on my credit union's website does not work right with JAWS. I can click on "Contact Us" but it opens a sub-menu and I can't select the option to send an email to my local branch manager."

WCAG Success Criterion

2.1.1 Keyboard (Level A): All [functionality](#) of the content is operable through a [keyboard interface](#) without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.

Best Practice

If a navigation region has flyout menus that are activated when the user hovers over them with a mouse, the flyout menu will not be accessible to keyboard-only, screen reader, or switch users.

✗ Non-Compliant Code Example

```
<button aria-expanded="true"
onclick="toggleSubmenu()">Contact Us</button>
<div>
  <ul>
    <li>
      <div onclick="openEmailDialog()">Email Manager</div>
    </li>
  </ul>
</div>>
```

✓ Compliant Code Example

```
<button aria-expanded="true"
onclick="toggleSubmenu()">Contact Us</button>
<div>
  <ul>
    <li>
      <div
        role="button"
        tabindex="0"
        onclick="openEmailDialog()"
        onkeydown="handleKeyDown()"
      >
        Email Manager
      </div>
    </li>
  </ul>
</div>
```

Top 3 Ways to Improve Accessibility for your Customers



... with Visual Disabilities

1. Use semantic markup properly – coding shortcuts that are invisible to sighted users can be roadblocks for blind users.
2. Check that your color contrast meets WCAG standards. You can [check your color contrast online with our free tool](#).
3. Ensure that all images are marked with alternative text. If the image is purely for decoration and does not communicate information, tag it with alt="".

... with Hearing Disabilities

1. Upload accurate and properly timed captions to all video content. You can outsource this for a small fee or you can do it yourself via your video platform.
2. Offer transcripts of audio and video content whenever possible.
3. Include an option for live chat or secure email as part of your customer service.

... with Mobility Disabilities

1. Try to navigate your website using the tab key, arrow keys, space bar, and enter. If you cannot see a visual indication of focus, one can be added in your CSS.
2. When adding links to text, link more than 1-2 words. People who struggle with motor skills need larger targets.
3. Whenever possible, allow mobile users to switch from landscape to portrait mode or vice versa. Some people with mobility disabilities mount their tablet to their wheelchair or desk for stability.

... with Cognitive Disabilities (or English Language Learners)

1. Be clear and concise in your writing. Keep words and sentences as short as possible. Avoid unnecessary jargon.
2. Use tooltips to display help rather than the placeholder element, which disappears when the user starts to type.
3. Write error messages that guide the person toward the correct action or input.

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