



iJS New York – October 2026

Accessibility in the Age of AI

The robots are also blind.

Nick Daniel – En Dash – endash.us



n-url.us/uzyghb



I sent an **AI** to buy coffee.

It couldn't find the button.

► What it saw

appno lang

n-brewMenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu...

ESPRESSO DRINKS

Espresso

Two shots, no nonsense.

\$3.00

+

Oat Latte

House oat milk, velvet.

\$5.00

+

Cappuccino

Dry, classical style.

\$4.50

+

PASTRIES

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 0

Nothing yet.

Total\$0.00

Checkout

Task: "Add an Oat Latte."Div soupFixed

Agent-LensTreeRotorSnapshot

lang: X missingtitle: "app"landmarks: 0h1: X none
controls: 1named: 0/1live regions: 0
invisible click targets: 9

text: n-brew
text: Menu
onclick on a div: not focusable, not a control
text: About

PrevNext38 nodes

looking for a button named like "oat latte"...
I can SEE the text "Oat Latte" on screen...
...but there is no control with that name. Just text, and generic containers.
there is 1 unnamed control. Which one adds a latte? I refuse to guess with someone's money.
x no actionable control for "Oat Latte"
- task failed. A keyboard or screen reader user hits this same wall.

Run agentReset appVoice

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Hi, I'm Nick –



- `img "Nick Daniel"`
- `heading "Nick Daniel" [level=1]`
- `text: Richmond, VA`
- `link "endash.us": the space between`
- `text: long-time a11y talker and tinkerer`
- `button "Err while live-coding" [pressed]`

Why this talk: the machines started using our UIs. Tree or screenshot, they stumble in the same places screen reader users do.

Accessible design has always been good design.

Five habits. Good for people. Now good for robots too.

PART 1

Structure

Landmarks, headings, a title.

PART 2

Controls

Real elements, real names.

PART 3

Interactions

State lives in the tree.

PART 4

Errors

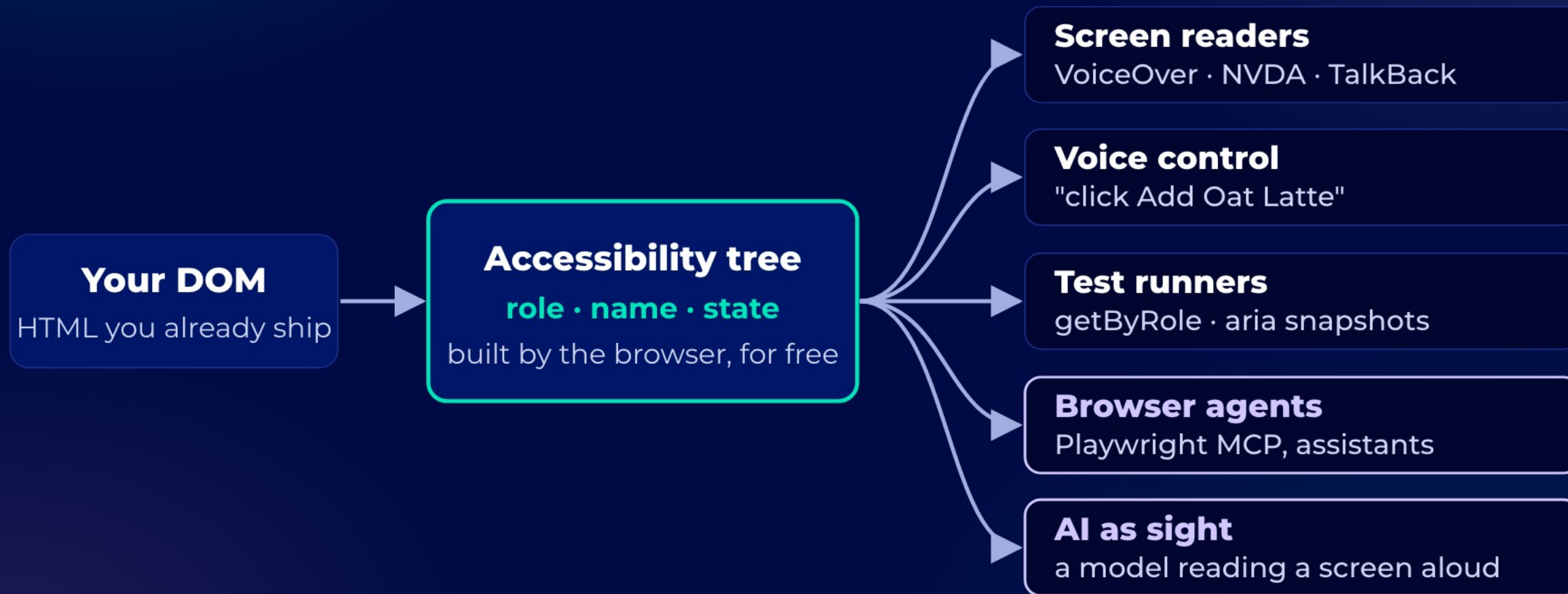
Which field. What. How.

PART 5

Recovery

Say what changed. Offer a way back.

Who's reading your UI now



The tree in 40 seconds

Role

What is it? `button`, `heading`, `dialog`, `textbox`. From the element, or from `role=`.

Name

What is it called?
From its text, its `<label>`, or an ARIA attribute. Placeholder is not a name.

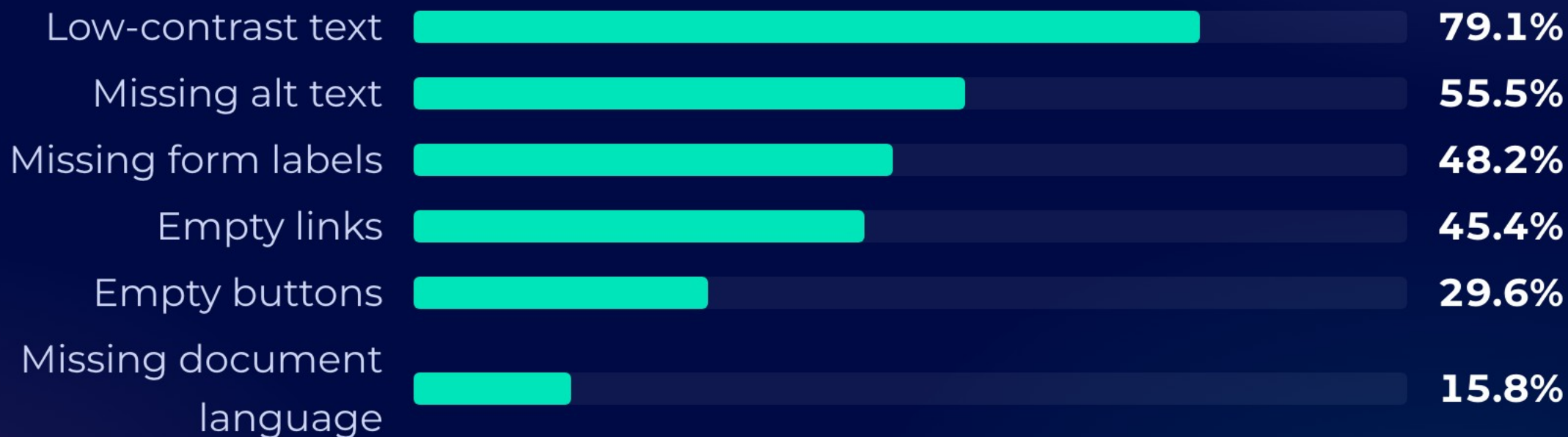
State

What's going on?
`disabled`, `expanded`, `invalid`, `current`, `checked`. Attributes, not classes.

```
<button aria-expanded="false" aria-controls="filters">Filters</button>  
<!-- becomes, for every reader on the previous slide: -->  
button "Filters" [expanded=false]  
<!-- and relationships: describedby, labelledby, heading levels -->
```

Where we still are

94.8% of the top million home pages had detectable WCAG failures. Average: 51 per page. The top six are all tree bugs.



Source: WebAIM Million 2025, webaim.org/projects/million. Share of home pages with at least one instance.

PART 1 — OF 5

Clear structure

Landmarks, headings, a title, a language. The map every reader builds before touching anything.

► Orient without looking

Task: "What page is this, and where's the menu?"

Div soup Fixed

Menu – n-brew

Lang="en"

n-brew

MenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks

Espresso

Two shots, no nonsense.

\$3.00

+

Oat Latte

House oat milk, velvet.

\$5.00

+

Cappuccino

Dry, classical style.

\$4.50

+

Pastries

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 0

Nothing yet.

Total\$0.00

Checkout

Agent-Lens

TreeRotorSnapshot

lang: en

title: "Menu – n-brew"

landmarks: 5

h1: yes

controls: 10

named: 10/10

live regions: 1

LANDMARKS

banner

navigation "Site"

main

search

complementary "Your order 0 items"

5 landmarks · 9 headings · 10 controls

h1: "Fuel for the space between" – I know what this page is for.

landmarks: banner · navigation "Site" · main · search · complementary "Your order 0 items"

headings: h2 "Espresso drinks" · h3 "Espresso" · h3 "Oat Latte" · h3 "Cappuccino" · h2 "Pastries" · h3 "Croissant" · h3 "Seedy Loaf" · h2 "Your order 0 items"

✓ oriented in 5 reads. The menu is in main, the cart is complementary "Your order 0 items".

► Run agent

Reset app

Voice

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Structure is navigation

Div soup

```
<html>
<title>app</title>
<div class="site-header">...</div>
<div class="hero-title">Fuel for...</div>
<div class="h2">Espresso drinks</div>
<div class="cart-panel">...</div>
```

Same CSS, real structure

```
<html lang="en">
<title>Menu - n-brew</title>
<header><nav aria-label="Site">...</nav>
<main>
  <h1>Fuel for...</h1>
  <h2>Espresso drinks</h2>...
  <aside aria-labelledby="cart-h">...
```

The rotor, your first Playwright locator, and the agent's first read are all the **same outline**. Ship one.

PART 2 – OF 5

Meaningful controls

A real element with a real name. If it isn't in the tree, it doesn't exist.

▶ Name that control

Menu – n-brew

lang="en"

n-brew

MenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks

Espresso

Two shots, no nonsense.

\$3.00

+

Oat Latte

House oat milk, velvet.

\$5.00

+

Cappuccino

Dry, classical style.

\$4.50

+

Pastries

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 1

Oat Latte

\$5.00

×

Total

\$5.00

Checkout

Oat Latte added. 1 item, \$5.00.

Task: "Add an Oat Latte."

Div soup

Fixed

Agent-Lens

TreeRotorSnapshot

lang: en

title: "Menu – n-brew"

landmarks: 5

h1: yes

controls: 11

named: 11/11

live regions: 2

banner

paragraph: n-brew

navigation "Site"

button "Menu" [current]

button "About"

main

heading "Fuel for the space between" [level=1]

paragraph: Small batch coffee from the En Dash toolkit.

↑ Prev

↓ Next

52 nodes

agent task: add an Oat Latte

reading accessibility tree... 10 controls (10 named)

looking for a button named like "oat latte"...

found: button "Add Oat Latte to cart, \$5.00" → clicking

page announced: "Oat Latte added. 1 item, \$5.00." –

confirmed. No screenshot diffing needed.

✓ Oat Latte added, and I was told so.

▶ Run agent

Reset app

☐ Voice

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Four plus buttons. Click one.



```
<div class="add-btn"
onclick="add()">+</div>
```



```
<button>+</button>
```



```
<button aria-label="Add">+
</button>
```



```
<button><span aria-hidden>+
</span><span class="sr-
only">Add Oat Latte to cart,
$5.00</span></button>
```

Click or Tab to a button. This panel shows the node the browser builds for it.

Name everything interactive. In this order.

1 • Visible text

```
<button>
  Add Oat Latte
</button>
```

- One string for eyes, ears, voice control and agents
- Translates. Never drifts from the design

2 • Hidden text

```
<button>
  <span aria-hidden>+</span>
  <span class="sr-only">
    Add Oat Latte
  </span>
</button>
```

- For icon-only controls
- Real DOM text: translates, testable, in the name

3 • aria-label

```
<button
  aria-label=
    "Add Oat Latte">
  +
</button>
```

- Last resort. Invisible, often untranslated
- Overrides content; rots quietly

Never `placeholder`, never `title` alone, never a `<div onclick>`.

PART 3 – OF 5

Predictable interactions

State lives in the tree. Focus goes where the action is. Escape means escape.

► Open checkout. Then get out.

Task: "Open checkout, then close it."

Real elements **Fixed**

Menu – n-brew

Lang="en"

n-brew

MenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks

Espresso

Two shots, no nonsense.

\$3.00

+

Oat Latte

House oat milk, velvet.

\$5.00

+

Cappuccino

Dry, classical style.

\$4.50

+

Pastries

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 2

Oat Latte \$5.00

Croissant \$3.75

Total \$8.75

Checkout

Agent-Lens

TreeRotorSnapshot

lang: en

title: "Menu – n-brew"

landmarks: 5

h1: yes

controls: 12

named: 12/12

live regions: 1

banner

paragraph: n-brew

navigation "Site"

button "Menu" [current]

button "About"

↑ Prev

↓ Next

55 nodes

button "Checkout" is enabled.

found: button "Checkout" → clicking

a dialog opened: dialog "Your order". Focus is inside it (on button "Close dialog"). Esc will close it. Everything behind it is inert.

found: button "Close dialog" → clicking to leave

dialog closed. Focus returned to button "Checkout", right where I started.

✓ in and out, and I always knew where I was.

► Run agent

Reset app

Voice

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Put state in the tree

Looks right

```
<button class="btn disabled">
  Checkout
</button>
<div class="tab active">Menu</div>
<div class="overlay">
  <div class="modal-card">...</div>
</div>
```

Is right

```
<button class="btn" disabled>
  Checkout
</button>
<button aria-current="page">
  Menu
</button>
<dialog aria-labelledby="order-h">
  <h2 id="order-h">Your order</h2>...
</dialog>
// dialog.showModal();
```

A class is a rumor. An attribute is a fact. `<dialog>` does the rest for free.

PART 4 — OF 5

Useful errors

Which field. What's wrong. How to fix it.
Attached to the field, not floating near it.

► An error the robot can read

Task: **"Place the order."** The email is already wrong.

Real elements

Fixed

Menu – n-brew

Lang="en"

n-brew

MenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks

Espresso

Two shots, no nonsense.

\$3.00

+

Pastries

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 0

Nothing yet.

Total

\$0.00

Checkout

Order placed. Ready in 5 minutes.

Order placed

Ready in 5 minutes. Receipt sent to nick@endash.us.

Back to menu

Agent-Lens

Tree

Rotor

Snapshot

lang: en

title: "Menu – n-brew"

landmarks: 5

h1: yes

controls: 11

named: 11/11

live regions: 2

dialog: "Order placed"

banner

paragraph: n-brew

navigation "Site"

button "Menu" [current]

button "About"

↑ Prev

↓ Next

54 nodes

we can call your order"

typing into textbox "Email for receipt": nick@endash.us

typing into textbox "Name for the cup": Nick

found: button "Place order" → submitting again

page announced: "Order placed. Ready in 5 minutes."

focus moved to heading "Order placed".

✓ error read, error fixed, order placed. Zero vision.

► Run agent

Reset app

Voice

A real modal is open, so everything behind it is inert (that's the feature).
Keys still work: **R** runs the agent, **M** switches mode, **Esc** closes it.

An error answers three questions

Color and vibes

```
<input class="err" placeholder="Email">  
...  
showToast("Something went wrong")
```

Which · what · how

```
<label for="em">Email</label>  
<input id="em" type="email"  
      aria-invalid="true"  
      aria-describedby="em-err">  
<p id="em-err">Enter an email with @,  
  like nick@endash.us</p>
```

Then **move focus** to the first invalid field. It reads its own label, state and error: one voice, same words on screen and in the tree.

PART 5 — OF 5

Paths to recovery

Say what changed. Offer a way back.

▶ Did that work?

Task: "Remove the croissant. Then put it back."

Real elements **Fixed**

Menu – n-brew

Lang="en"

n-brew

MenuAbout

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks

Espresso

Two shots, no nonsense.

\$3.00

+

Oat Latte

House oat milk, velvet.

\$5.00

+

Cappuccino

Dry, classical style.

\$4.50

+

Pastries

Croissant

Laminated 27 times.

\$3.75

+

Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 2

Oat Latte \$5.00

Croissant \$3.75

Total \$8.75

Checkout

Croissant restored.

Agent-Lens

TreeRotorSnapshot

lang: en

title: "Menu – n-brew"

landmarks: 5

h1: yes

controls: 12

named: 12/12

live regions: 2

banner

paragraph: n-brew

navigation "Site"

button "Menu" [current]

button "About"

main

heading "Fuel for the space between" [level=1]

↑ Prev

↓ Next

56 nodes

agent task: remove the croissant, then put it back

found: button "Remove Croissant" → clicking

page announced: "Croissant removed. Undo remove Croissant"

there's a way back: button "Undo remove Croissant"

found: button "Undo remove Croissant" → clicking

page announced: "Croissant restored."

✓ removed, told, restored. Every step confirmed by the page.

▶ Run agent

Reset app

☐ Voice

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Announce the change. Forgive the click.

One polite announcer

```
<p id="status" role="status"></p>

status.textContent =
  "Croissant removed.";
status.append(undo); // a way back
```

After the big one

```
<h2 id="done" tabindex="-1">
  Order placed</h2>
<p>Ready in 5 minutes.</p>
<button>Back to menu</button>

done.focus(); // then hand over
```

Agents wait for **an announcement** the same way screen reader users do. Silence reads as failure to both.

► The whole order, without looking

Task: "Order an Oat Latte and a Croissant. Receipt to nick@endash.us."

Div soup

Fixed

Menu – n-brew lang="en"

n-brew Menu About

Fuel for the space between

Small-batch coffee from the En Dash toolkit.

Search the menu

Espresso drinks



Espresso

Two shots, no nonsense.

\$3.00

+



Oat Latte

House oat milk, velvet.

\$5.00

+



Cappuccino

Dry, classical style.

\$4.50

+

Pastries



Croissant

Laminated 27 times.

\$3.75

+



Seedy Loaf

A slice. Very seedy.

\$2.50

+

Your order 0

Nothing yet.

Total \$0.00

Checkout

Order placed. Ready in 5 minutes.

Agent-Lens Tree Rotor Snapshot

lang: en title: "Menu – n-brew" landmarks: 5 h1: yes

controls: 10 named: 10/10 live regions: 2

banner

paragraph: n-brew

navigation "Site"

button "Menu" [current]

button "About"

↑ Prev ↓ Next 50 nodes

round: button "Place order" → submitting again

page announced: "Order placed. Ready in 5 minutes."

focus moved to heading "Order placed".

✓ error read, error fixed, order placed. Zero vision.

found: button "Back to menu" → heading back

focus is on heading "Fuel for the space between". Ready for the next task.

✓ whole order complete. Every step used a role and a name you shipped. Zero guesses, zero pixels.

► Run agent Reset app Voice

Same commit. **Two users.**

Three, if you count your test suite.

AND THEN —

Make the robots work for you

The same machine that stalls on your UI is the cheapest accessibility engineer you'll ever hire. Give it three things.

1 • Give your agent the rules

```
# .claude/skills/a11y-first/SKILL.md    (or AGENTS.md, CLAUDE.md, .cursorrules)
1. Use the element that means it: button, a[href], label, dialog, h1-h6, nav.
2. Name every control with visible text. Icon only? Hidden text. aria-label last.
3. State is an attribute, never a class: disabled, aria-current, aria-invalid.
4. Errors: aria-invalid + aria-describedby, then focus the first bad field.
5. Off-screen changes go through one role="status" region. Big moves move focus.
Before you say "done": run `npm test -- a11y` and paste the aria snapshot.
```

One file in the repo. Every agent that touches your UI reads it first. **The five habits, as a lint rule the robot applies to itself.**

2 • Ask it the screen reader question

“Read this screen the way a screen reader would. List every control by role and name. Flag anything unnamed, any state that lives only in a class, and any change that isn't announced. Then give me the smallest diff.”

Paste it with a component, a PR, or a staging URL. Claude Code, Cursor, Copilot, a chat window. **It's the agent log from the demos, on demand.**

3 • Let the tests do the checking

```
test.beforeEach(({ page }) => page.goto("/"));
test("the menu, as the robot reads it", async ({ page }) => {
  await expect(page.getByRole("main")).toMatchAriaSnapshot(`
    - heading "Fuel for the space between" [level=1]
    - list:
      - listitem:
        - button /Add Oat Latte to cart/
  `);
});
test("no axe violations", async ({ page }) => {
  expect((await new AxeBuilder({ page }).analyze()).violations).toEqual([]);
});
```

Snapshot for names and structure, `@axe-core/playwright` for the WebAIM six, a Tab walk for reach. Green means **a person and a robot can both use it**.

4 • Point an agent at staging

```
agent task: check out  
found: button "Checkout" → clicking  
something appeared, but the tree shows no dialog. Focus never moved.  
trying Escape... still there. Esc means nothing here.  
x task technically done. I never knew I was in a modal.  
  A keyboard user would have tabbed into the page behind it.
```

Playwright MCP or any browser agent, plus the prompt, on a Friday. **Every stall is a bug report** written in plain English, filed by your cheapest tester, and the fix is a commit that also helps a person.

This week

- **Drop the skill file** into your repo. Ten minutes.
- **Run the prompt** on your worst screen. Read the answer like a bug report.
- **Add the three tests:** aria snapshot, axe, Tab walk.
- **Point an agent at staging.** Where it stalls, a person stalls.

Build it for the person.
The robot comes free.

Before you go – three quick asks



Say hi

Questions after the session, or tell me what you're making accessible.

[linkedin.com/
in/njdaniel](https://www.linkedin.com/in/njdaniel)



Find me

Writing and tools, including everything from this talk.

endash.us



Take it with you

This deck, the café, the skill file and the tests.

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Thanks, iJS. [Now let's talk.](#) · nick@endash.us

We ask for
your feedback!

**PLEASE
VOTE
NOW!**

