

Common Patterns

The Web has many common UI patterns

- Those present in base HTML elements
 - Bulleted lists, Forms, etc
- Non-interactive, built from HTML
 - Horizontal menus, "Cards", etc
- Interactive, built from HTML
 - Dropdown menus, Accordions, Modal

Accordion Pattern

This UI Pattern is

- A collection of sections
- Each with a title
- Each can collapse/expand
- Sometimes only one/expanded at a time
- Sometimes only collapse by expanding another

Accordion UI Pattern

What to do about a catnip addiction?	+
Will I ever catch that red dot?	—
Dolor dicta odio inventore ut qui dolore. Omnis recusandae quo porro voluptatibus veniam? Sed earum rem nobis quasi odit, similique ducimus Voluptatibus fugit sint error?	
Why does the human have a problem with me claiming the center of the bed?	+

When to use an Accordion?

- When NOT all content is useful to user
- Otherwise show all content and let them scroll!

Accordion filters user to specific content

- Content that isn't worth a separate page

Accordion Implementation Considerations

- What (if any) limitations on expand/collapse?
 - Only one section open at a time?
 - Can be messy with scrolling
- Keyboard/mouse/touch controls
 - Buttons are good for this
 - "Click" is true for all
- Accessibility concerns?
 - Semantic HTML
 - Indicating open/close
 - Not just visual (ARIA)

Unicode Characters

"unicode" characters are a way of encoding characters

- Beyond common english characters and symbols
- Beyond european characters
- Beyond characters of all languages
- Includes an ever expanding list of emoji
 - But emoji can have a11y issues
 - Text may not match intention
 - 🤯 (dizzy face)
 - 🚩 (triangular flag on post)

How to include a unicode character

- You already are
- but how to include those not on the keyboard?
 - Operating System (ex: apple emoji keyboard)
 - Cut-and-paste
 - Other ways depend on what kind of file is encoding it (js, css, HTML)



- HTML: `🐱`
- CSS: `\1F431`
- JS: `\uD83D\uDC31` or `\u{1F431}`

Finding Unicode characters

Easiest: Search web

My current fav:

- **<https://unicode-table.com/en/1F431/>**

Unicode warnings

- Font dependent!
 - <https://www.boredpanda.com/entomologist-rates-ant-emojis/>
- Be careful with language characters
 - <https://unicode-table.com/en/2630/>
 - Often misused for hamburger menu
 - Try to use the correct meaning

Borders

We've used borders around a box to make it stand out

But they have additional uses/notes

- A dividing line by putting a border on one side
- Open borders between areas to "connect" them

If two bordered boxes touch, you get a thicker line

- Remove that side from one to fix
- Or overlap by using negative margins
 - When the lines aren't the same length

Planning the HTML

What HTML are we rendering?

- Could be a `<dl>` list
- OR entries could be `<div>`
 - Always question a div
 - But often a div
- Title will be `<button>`
 - Control, not navigation
 - Lots of built in a11y
- Section Heading? (`<h(NUM)>`)
 - Must be correct semantics if we do!

Plan the HTML 2

What additional structure do we need?

- How are we showing open/close?
 - Icons, text would be additional element
 - Might require a wrapper if so
 - `::before/::after` pseudo-elements
 - No extra elements required
 - ARIA covers non-visual indication
- No extra validation info or feedback
 - For this pattern

Using <details>/<summary>

There IS a semantic HTML element pair for this

- With built in semantics and roles
 - No extra ARIA needed
- But it has some severe limitations

```
<details>
  <summary>
    Item 1
  </summary>
  Ipsum minima ad impedit quis alias Quidem fuga quis nemo.
</details>
```

Each entry would be a separate <details> element

- Each with a contained <summary> element

Details of...<details>

- `open` attribute when opened
 - Can use for styling
- A JS `toggle` event when opened/closed
 - Detect user interactions

```
<details open>
  <summary>
    Item 1
  </summary>
  Ipsum minima ad impedit quis alias Quidem fuga quis nemo.
</details>
```

Limitations of <details>

<details> has built-in semantics and behaviors, BUT

- Styling is a pain
 - Possible, but a pain
 - And the default is UGLY
- Limitations on using headings
 - <summary> overrides other roles
- New-ish candidate for actual use
 - Poor a11y on initial release
 - Limited modern documentation/review
- BUT: No JS required for the interaction!
 - And graceful degradation (all show)

Plan the appearance

- Plan before writing CSS
- Reality-checks HTML plan
- Title button full width
- Where is open/close indicator?
- What is open/close indicator?
- When does it change?
- Animation of open/close?

Planning state

- Allowing multiple open?
 - On open action, do we close others?
- Is one always open?
 - On close action, act only if another open?
- Adding `hidden` attribute to "closed" sections?
 - To hide visually AND from Assistive Tech
- Adjusting ARIA values
 - `aria-expanded="true"/>"false"`

Beyond scope of this class

- But I recommend tracking "state"
 - Outside of DOM

Accordion Resources

- Great walkthrough!
 - **<https://www.aditus.io/patterns/accordion/>**
- Remember to LEARN, not COPY
 - You need skill to handle variations for future

Accordion variations

- Many sections, show one
- Similar UIs:
 - Tabs
 - Vertical or Horizontal?
 - Menus w/on-screen content
 - Just tabs with different UI
- Some sample looks: **<https://alvarotrigo.com/blog/html-css-tabs/>**

Tabs UI Pattern

What to do about a catnip addiction?	Will I ever catch that red dot?	Why does the human have a problem with me claiming the center of the bed?
Amet minima assumenda debitis fugiat aut Illo adipisci accusantium totam est labore. Quam cum dolorum magni facere!		

Tabs as filter



Today

All Time



Last Week

Last Month

All Time



Current

Max

Likes - Today

#1



Rohit

♥ 21

#2



Kamil

PRO

♥ 16

#3



clement

♥ 13

#4



clevermissfox

PRO

♥ 12

#5



Peter

PRO

♥ 11

Vertical Tabs



Consider when choosing

- Where is "navigation" interaction?
 - Tabs in same location
- When is navigation interactions?
 - Accordions CAN activate on focus
 - But do not have to
 - What about a staged form?
 - Finishing a stage makes next visible
- Where is visibility?
 - Accordions can push content off screen
- Title size (tabs prefer smaller titles)

Summary - Accordion

- A UI Pattern of multiple collapsible sections
 - Can many sections be open
 - Which section(s) start open?

Summary - Process

- Implement in steps
- Verify before advancing
 - HTML structure
 - Base on semantics
 - Appearance plan
 - Define needs for HTML + CSS
 - Verify A11y
 - Keyboard and accessibility labels min
- Final CSS clean up
 - Colors, whitespace, borders
 - Hover effects

Summary - Implement

- CSS and JS
 - Build in cycles
 - Confirm each step
 - Manually force class states to confirm
- Implement state change handling last
 - You know the UI works already