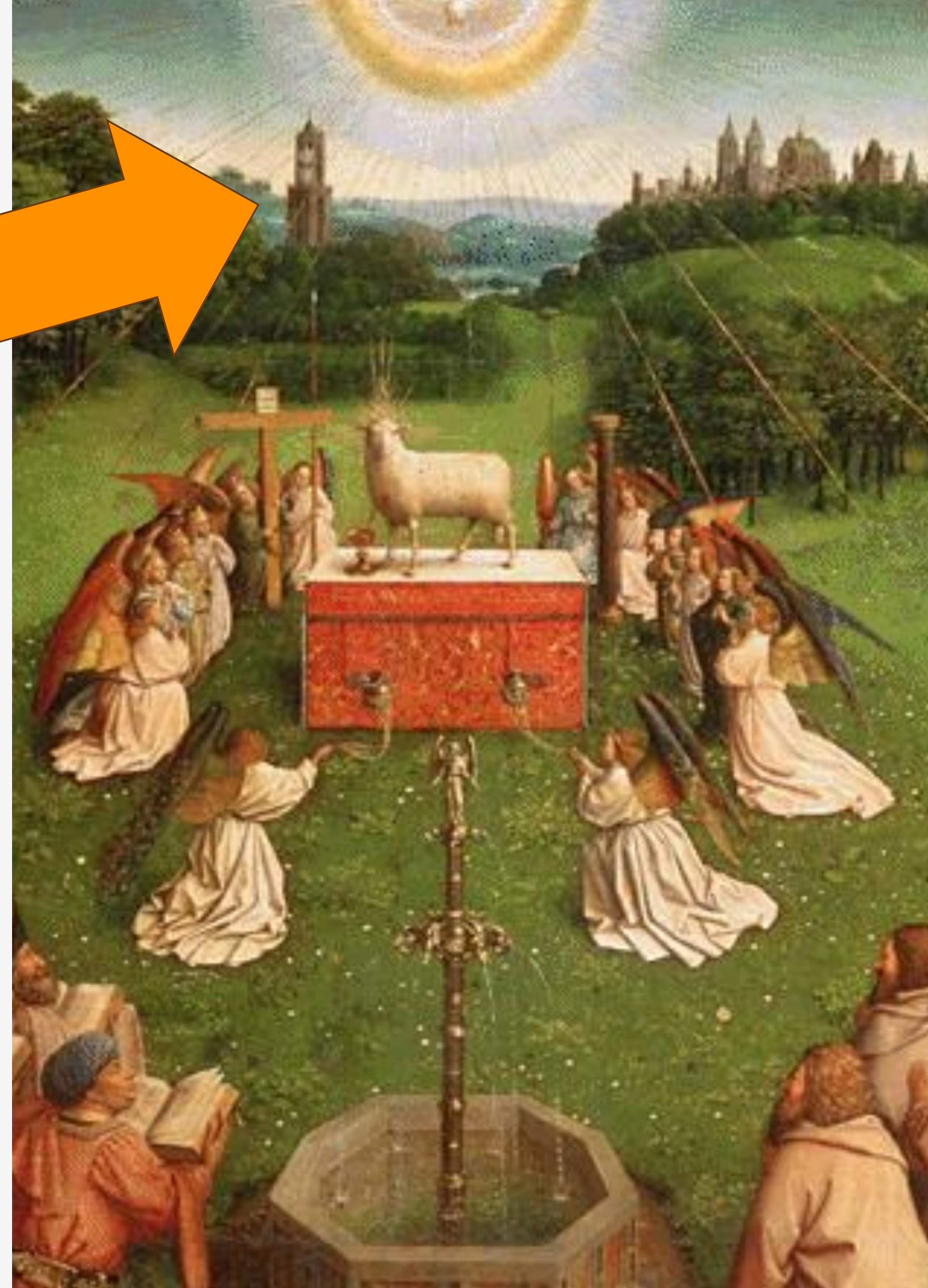


/ ACCORDIONS, CAROUSELS POP-UPS

Ingredients for a delicious website or a
recipe for disaster?

What meat in the tub?

- Me
 - Boris Doesborg, Utrecht NL
 - Drupal developer @ Finalist
 - batigolix on drupal.org
- Finalist
 - Drupal websites for Health & Education
 - Supporter of the Drupal Community
 - Event sponsor & co-organiser
 - Core and contrib maintainer
 - Dutch Drupal Association member



Menu

- Accordions
- Carousels
- Pop-ups
- Advantages & disadvantages
- Common accessibility & usability issues
- What can be done to make them usable & accessible?

Accessibility benefits many audiences

- People with physical disabilities
- Elderly
- People with low-literacy skills
- People with situational disabilities
- User on slower internet connections & devices
- SEO, user engagement, performance
- Legal specialists & lawyers

Accordions

FAQs

Does Jamie offer personal messages or can he attend my event? ^

Due to the very high volume of requests for Jamie invites/messages/signings, we are unable to fulfil these types of requests.

Can I get a book signed by Jamie? ^

Due to the very high volume of requests for personal book signings, Jamie sadly cannot fulfil these type of requests. However, do keep an eye on our social media channels for your chance to buy or win signed copies during promotions.

Can I use photographs of Jamie or that are featured in his books? v

I would love to work with the Jamie Oliver Group, how do I apply? v

Does Jamie Oliver HQ offer work experience? v

Can I book a cooking class with Jamie? v

Accordions

WHAT

List of **headers** that can be expanded to reveal **panels** with more content

HEADER

Is Sautéed Broccoli Good for You? -

PANEL

Broccoli is a nutrition powerhouse high in **fiber, iron** and **vitamins A and C**. It also offers a decent amount of **potassium and folate**—two nutrients most folks don't get nearly enough of.

Sautéing broccoli helps it **retain most of its nutrients**, which is a major benefit over boiling.

Main advantages

ACCORDIONS

- Show content in a progressive way: shorter, less daunting
- Give visitors an idea what the page is about
- Let user focus on a specific tasks (part of a form, FAQ, Product details)

Main disadvantages

ACCORDIONS

- More effort to read the full content, higher interaction cost
- Hidden content may be overlooked
- Printing

Common accordion issues

- Headers are not focusable elements
- Panels cannot be expanded with keyboard
- No icons or styling indicating that there is hidden content
- No outline on element that has focus
- Panels collapse automatically when others open

Real life accordion issues

- Recording of Teams meeting between me and my colleague Jasper
- Jasper is visually impaired uses a screen reader to browse the web
- We are browsing a Recipes/Cooking website
- Sorry for the chaos: you hear 3 voices sometimes simultaneously:
 - The screenreader
 - Jasper giving feedback on what he is trying to do
 - Me making dumb remarks



Each recipe is priced at £1 or less per portion, which we've calculated based on an average of four UK supermarkets (Tesco, Asda, Sainsbury's and Morrisons). Please note that these recipes do not use higher-welfare ingredients, although we do use free-range eggs and Red Tractor-assured meat.

We've calculated the cost per portion by the amount used, rather than the whole ingredient cost, as we believe you'll already have many of the ingredients in your store cupboard/fridge/freezer. We don't include olive oil, salt or pepper in the final costings, as we think you'll definitely have these.

On the health front, we've kept an eye on veg portions to ensure that all of the main meals contain at least 2 portions of your 5-a-day. Plus, the majority of these recipes are classed as 'everyday', with only a couple of 'occasional' dishes. For more information on how we define 'everyday' recipes, [click here](#).

[Read our FAQs for more information.](#)

£1 per portion isn't affordable for everyone

What about meat standards?

How did you work out the price?

Which supermarket did you get the prices from?

Is microwave cooking safe?

How was energy usage calculated to cook these recipes? Are the recipes low cost in energy too?



Boris Doesborg



Jasper Stroomer

Jasper Stroomer



- Does Jamie offer personal messages or can he attend my event?
- Can I get a book signed by Jamie?
- Can I use photographs of Jamie or that are featured in his books?
- I would love to work with the Jamie Oliver Group, how do I apply?
- Does Jamie Oliver HQ offer work experience?
- Can I book a cooking class with Jamie?
- Could Jamie please donate something to our raffle prize?
- Please could Jamie share some career advice on getting my book out there?
- I'm studying, please can Jamie help answer some questions for my project?
- Does Jamie have any advice for someone who wants to become a chef?
- How do I book a class at the Jamie Oliver Cookery School?

Recipe FAQs

Is the n...
Are ove...
FYEO **Leven zonder bril** Openen



Boris Doesborg



Jasper Stroomer

Make the accordion usable & accessible

ACCORDIONS

- Header must be a good summary of the content hidden in the panel
- Clear icons should be used (plus sign or down arrow)
- It must be possible to open all the panels (no automatic closing)

Accessibility: keyboard

ACCORDIONS

- Move through focusable elements with Tab & Shift+Tab
- Elements that are in the hidden panels should not get focus (need JS)
- When focus is on header you can expand with Enter or Space (button)

Accessibility: markup

ACCORDIONS

- Use <button> element for headers
- Use attributes for headers:
 - aria-controls="panel1" #ID of panel
 - aria-expanded="true" (state of the panel)
- Use attributes for panels:
 - aria-labelledby="header1" #ID of button

Accordion with native elements

```
<details>  
  <summary>More Information</summary>  
  Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed  
do eiusmod tempor incididunt.  
</details>
```

- HTML5 native elements `<details>` & `<summary>` allow creating an accordion
- No additional JS/CSS needed
- Not supported by older browsers

Carousels (slider)



<

**QUICK & EASY
RECIPES**

Escape to the Med with our collection of 5
Ingredient recipes

NEXT

Sign up now

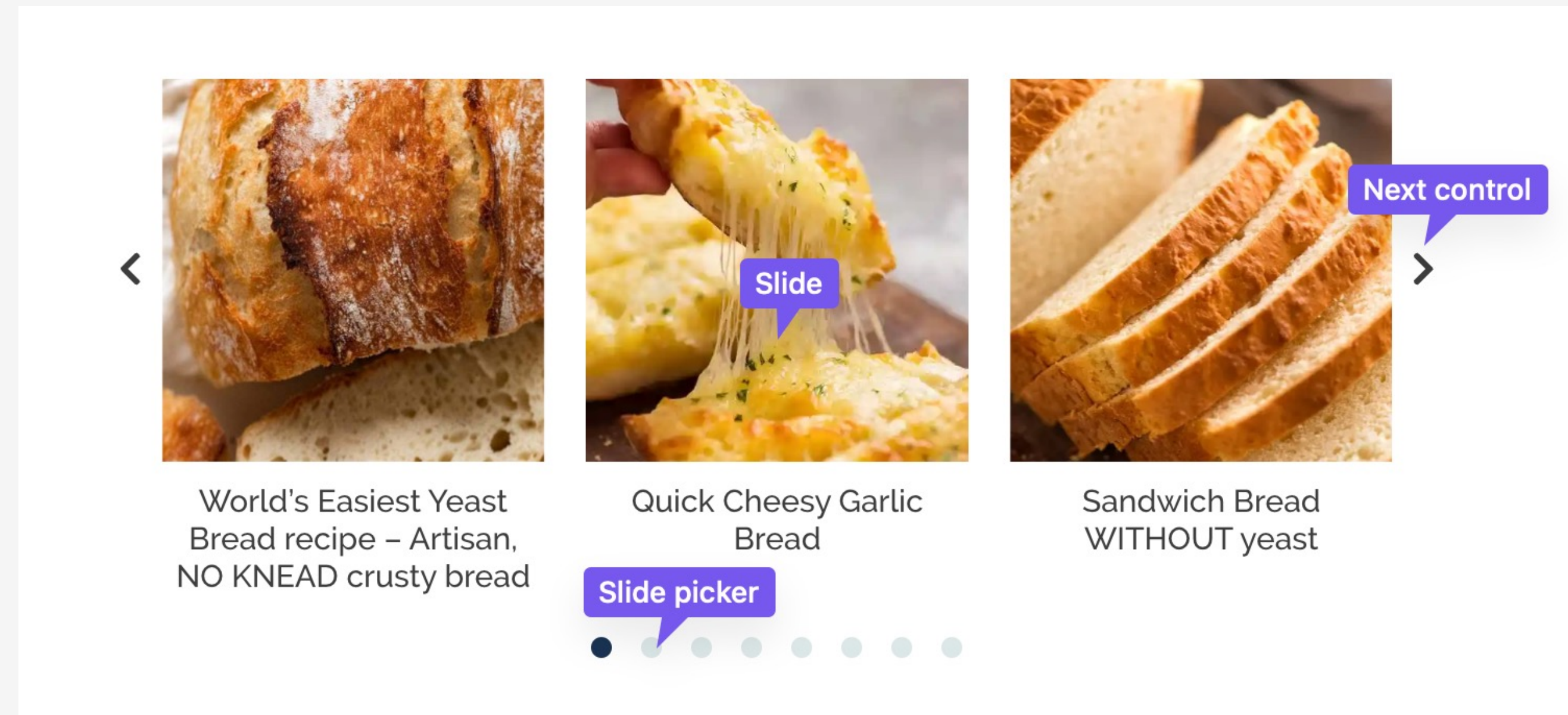
● ○ ○ ○ ○ ○

Carousels

WHAT

Carousels (or sliders) consist of:

- Slides
- Next & previous button (often)
- Pause button (if it auto rotates),
- Slide picker / pager (often)



Main advantages

CAROUSELS

- Allow multiple pieces of content to occupy a single space (often in the most visible part of the website)
- Improves chances that content is visible
- Let users explore, compare, browse, preview (gallery images, products, hotels, restaurants)

Main disadvantages

CAROUSELS

- Not sure that visitors see the content or click links. Especially the hidden frames
- Considered distracting / annoying, especially when auto-rotating
- No standards for navigation controls (Pause, Next, Previous, Slide Picker)

Common carousel issues

- Slide content is announced to the screenreader when auto rotating
- Auto-rotate / No pause button
- Weak / no focus outline
- Elements in slides are not focusable (including next & previous buttons)
- Elements in hidden slides get focus



THE JAMIE OLIVER COOKERY SCHOOL

Choose from more than 30 classes, all taught by Jamie's talented team of chefs

[Find out more](#)

RECIPES OF THE WEEK

<https://www.jamieoliver.com/air-fryer-meals/>

Luxaflex 20% korting op Luxaflex® Horren **GROEN**

LEES MEER



Boris Doesborg



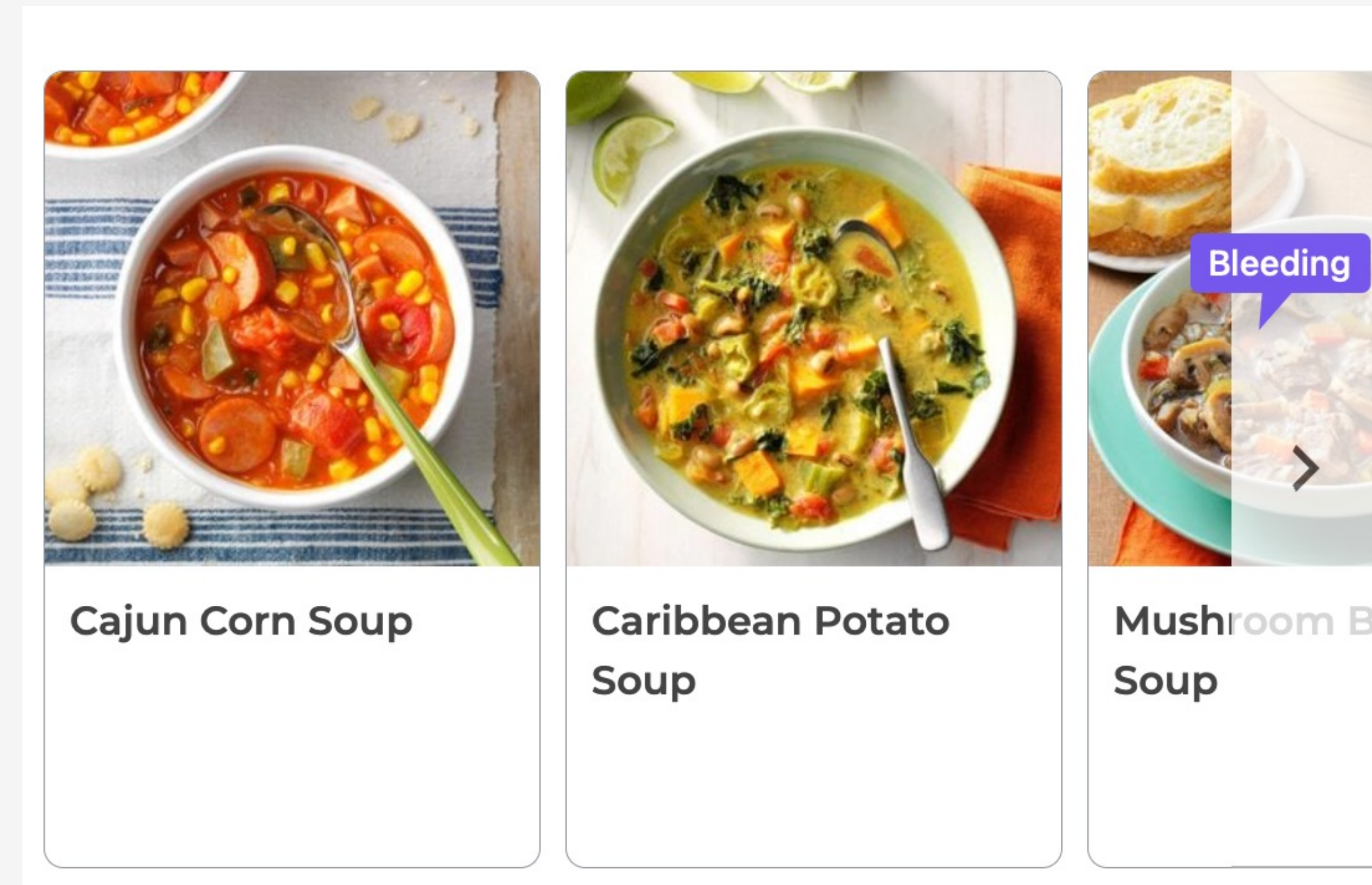
Jasper Stroomer

Jasper Stroomer

Making carousels usable & accessible

CAROUSELS

- Put controls inside the slider
- Use a small amount of slides
- Slide picker helps user understand how much slides there are
- Use Bleeding to indicate that more slides are available
- Don't auto-rotate (it is too slow or too fast and resembles ads)



Accessibility: keyboard

CAROUSELS

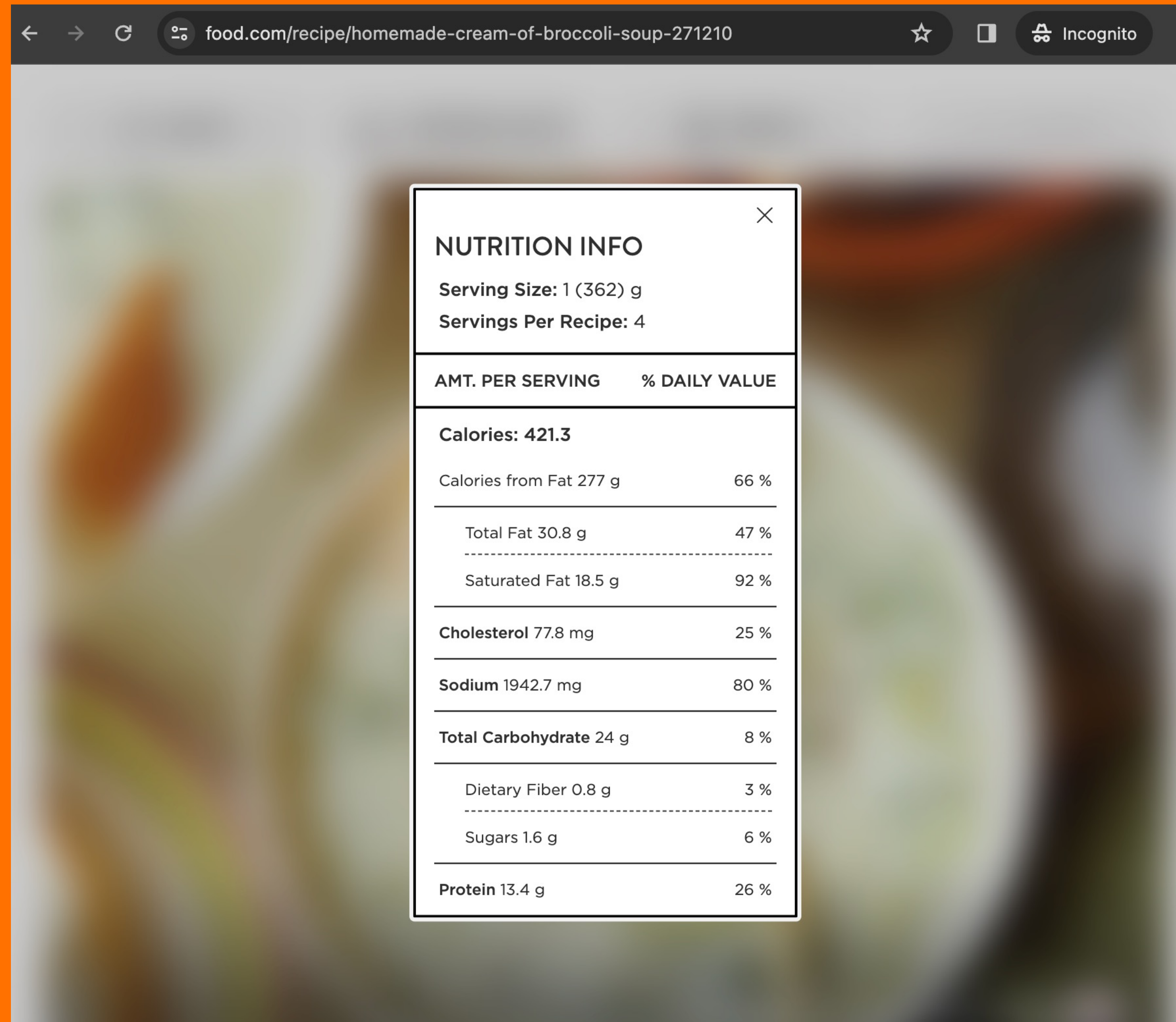
- Pause button must be the first element that gets focus
- Tab & Shift + Tab: move focus through interactive elements (but not the hidden ones)
- Pause, Next, Previous must act like buttons (can be pressed with Space, Enter)
- Slide picker: Left & Right arrow to move through list and open the slide

Accessibility: roles, properties, attributes

CAROUSELS

- Controls:
 - <button>
 - aria-label = "Next slide"
 - aria-controls = #ID of the slides wrapper
- Carousel:
 - aria-roledescription="carousel"
- Slide:
 - aria-roledescription="slide"
 - aria-label = "Slide 1 of 7"

Pop-ups (dialog)



The screenshot shows a web browser window with the address bar displaying "food.com/recipe/homemade-cream-of-broccoli-soup-271210". The browser is in Incognito mode. A "NUTRITION INFO" dialog box is open, displaying the following information:

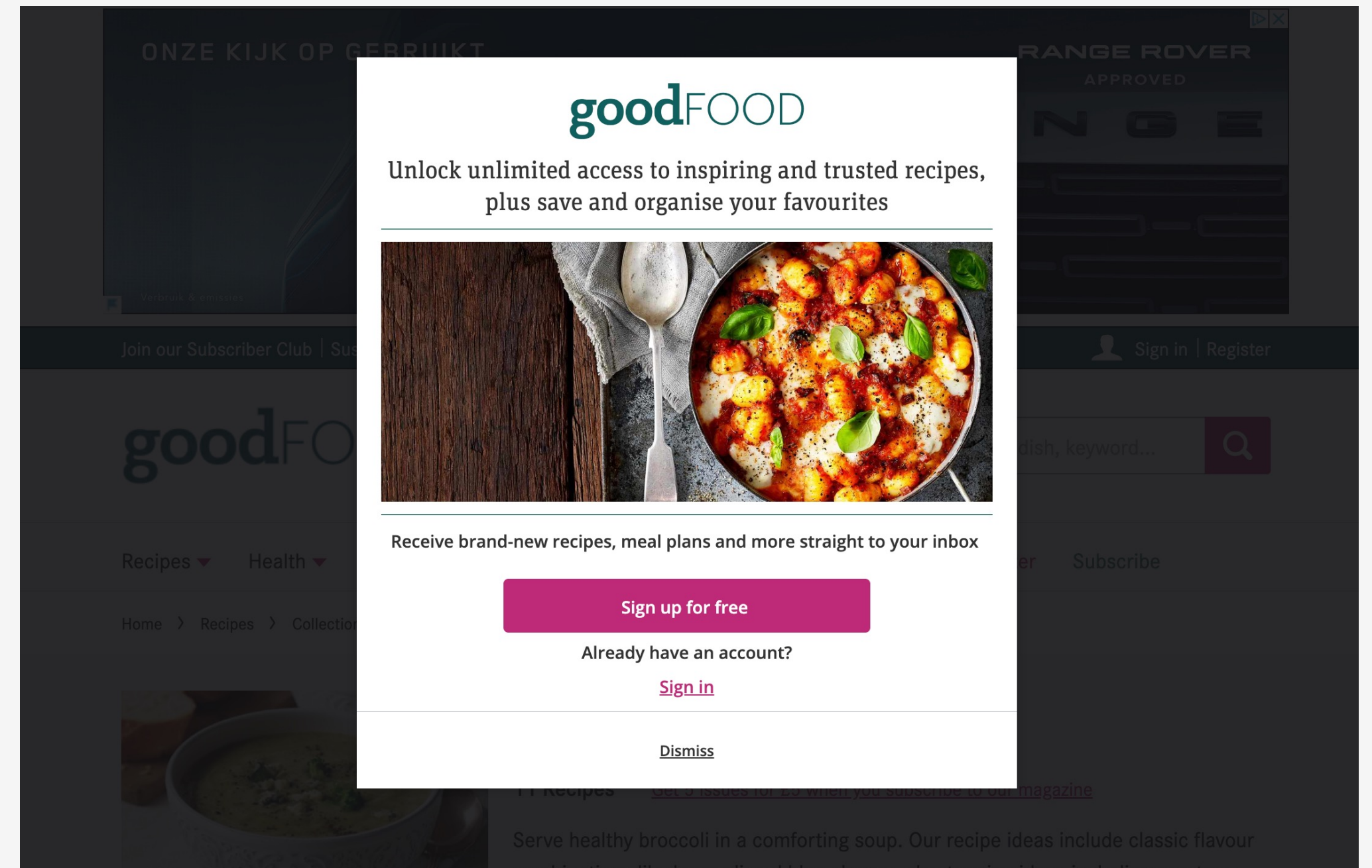
NUTRITION INFO (Close button: X)

Serving Size: 1 (362) g
Servings Per Recipe: 4

AMT. PER SERVING	% DAILY VALUE
Calories: 421.3	
Calories from Fat 277 g	66 %
<hr/>	
Total Fat 30.8 g	47 %
<hr/>	
Saturated Fat 18.5 g	92 %
<hr/>	
Cholesterol 77.8 mg	25 %
<hr/>	
Sodium 1942.7 mg	80 %
<hr/>	
Total Carbohydrate 24 g	8 %
<hr/>	
Dietary Fiber 0.8 g	3 %
<hr/>	
Sugars 1.6 g	6 %
<hr/>	
Protein 13.4 g	26 %

Pop-ups

- “Dialog”: conversation between the user and the system
- Modal dialog: the window underneath is not available (often blacked or greyed out)
- Nonmodal: the window underneath is available



Main advantages

POP-UPS

- Help focus on specific task
- Can be used for important warnings (Cookies) & to prevent errors
- Can be used to fragment complex workflow

Main disadvantages

POP-UPS

- Are used for non-essential information
- Increase interaction cost:
 - Require immediate attention
 - Interrupt workflow
 - Cause users to forget what they are doing



A screenshot of a tweet from Andy Budd (@andybudd) dated January 2, 2022. The tweet title is "A typical website visit in 2022" and lists five steps: 1. Figure out how to decline all but essential cookies, 2. Close the support widget asking if I need help, 3. Stop the auto-playing video, 4. Close the "subscribe to our newsletter" pop-up, and 5. Try and remember why I came here in the first place. The tweet has 38K likes and a "Read 356 replies" button.

Andy Budd
@andybudd · [Follow](#)

A typical website visit in 2022

1. Figure out how to decline all but essential cookies
2. Close the support widget asking if I need help
3. Stop the auto-playing video
4. Close the "subscribe to our newsletter" pop-up
5. Try and remember why I came here in the first place

2:35 PM · Jan 2, 2022

38K Reply Copy link

[Read 356 replies](#)

Common pop-up issues

POP-UPS

- Elements in the pop up do not receive the focus
- Focus does not stay inside the popup
- Focus order continues in the window underneath
- No close button

Broccoli and cheese soup

★★★★☆ 14 ratings
[Rate this recipe](#)



Preparation time
less than 30 mins

Cooking time
30 mins to 1 hour

Serves
Serves 4-6

Dietary
V

Broccoli and blue cheese soup is classic British cooking, and especially good for using up any leftover cheese from Christmas.

Based on six portions without the optional toppings, each serving provides 227 kcals, 11g protein, 10g carbohydrates (of which 5g sugars) 15g fat (of which 9g saturates), 4g fibre and 0.6g salt.

By [Annie Rigg](#)

[Share](#)

[Add to favourites](#)

[Shopping list](#)

[Print recipe](#)

Related Recipes



Leek and potato soup
By The BBC Food team

[See more Best soup recipes \(44\)](#)



Corn soup
By [Keshia Sakarah](#)

[See more vegetable soup recipes \(94\)](#)



Miso-marinated beef skewers with grilled vegetables and soy beef broth
By [Matt Tebbutt](#)

[See more broccoli recipes \(221\)](#)



Boris Doesborg



Jasper Stroomer

Making pop-ups usable & accessible

POP-UPS

- Allow pop-up to be closed with Close button
- Allow it to be closed by clicking outside the pop-up
- Focus automatically set on the close button or some non-destructive element like the cancel button

Accessibility: keyboard

POP-UPS

- When pop-up opens focus moves to element in dialog
- Tab & Shift+Tab to move to next / previous element
- If focus is on last element, Tab moves to first element OR close the pop-up (needs JS)
- Escape closes the dialog

Accessibility: roles, properties

POP-UPS

- Control for opening pop-up:
 - <button>
 - aria-controls = "dialog" #ID of the pop-up
- Pop-up:
 - role = "dialog"
 - aria-label = "Subscribe to newsletter"
 - aria-modal = "true" : window underneath pop-up is not available for interaction

It's a wrap



🕒 15M ●● SUPER EASY

Rainbow open wrap



🕒 40M ●● NOT TOO TRICKY

Cool Mexican bean wraps



🕒 30M ●● SUPER EASY

Rainbow salad wrap

Ingredients

ACCORDIONS, CAROUSELS, POP-UPS

- Use the correct elements / roles like e.g. buttons
- Tab & Shift+Tab to move through focusable elements
- Exclude hidden elements from Focus order
- Make controls comfortable to tap / click on
- Element with focus should have clear outline
- Give text and controls sufficient contrast (think of background images)
- Test with keyboard, screenreader and real people

Ingredients

ACCORDIONS, CAROUSELS, POP-UPS

- Use accordions, carousels, pop-ups only for very specific cases
- Be aware that these techniques introduce usability and accessibility issues
- Choose a JS/CSS library that:
 - fits your needs
 - is well maintained
 - has accessibility support

Chefs

- Content based on articles from:
 - Nielsen Norman Group
 - Smashing Magazine
 - World Wide Web Consortium
- Colleagues:
 - Wiebe (for accessibility expertise)
 - Jasper (for demonstrating the screenreader)

Cookbooks

ACCORDIONS

- <https://www.smashingmagazine.com/2017/06/designing-perfect-accordion-checklist/>
- <https://www.hassellinclusion.com/blog/accessible-accordions-part-2-using-details-summary/>
- <https://www.w3.org/WAI/ARIA/apg/patterns/accordion/>
- <https://www.nngroup.com/articles/accordions-complex-content/>

Cookbooks

CAROUSELS

- <https://www.w3.org/WAI/ARIA/apg/patterns/carousel>
- <https://www.smashingmagazine.com/2022/04/designing-better-carousel-ux/>
- <https://www.nngroup.com/articles/designing-effective-carousels/>
- <https://www.smashingmagazine.com/2023/02/guide-building-accessible-carousels/>

Cookbooks

POP-UPS

- <https://www.w3.org/WAI/ARIA/apg/patterns/dialog-modal>
- <https://www.smashingmagazine.com/2021/07/accessible-dialog-from-scratch>
- <https://www.nngroup.com/articles/modal-nonmodal-dialog/>

Pantry

- Accordions:

- w3C accordion.js

- <https://www.w3.org/WAI/ARIA/apg/patterns/accordion/examples/accordion/>

- Carousels:

- Accessible slick, <https://github.com/Accessible360/accessible-slick>

- Swiper <https://swiperjs.com/>

- W3c, <https://www.w3.org/WAI/ARIA/apg/patterns/carousel/examples/carousel-1-prev-next/>

- Pop-ups:

- w3c dialog.js, <https://www.w3.org/WAI/ARIA/apg/patterns/dialog-modal/examples/dialog/>

- [A11y-https://a11y-dialog.netlify.app](https://a11y-dialog.netlify.app)

- Aria-modal-dialog, https://github.com/scottaohara/accessible_modal_window

Questions?

Thanks