

Screen Size to check**Website: 1512 px****Mobile: 390 px****Part 1:**

The fully responsive website's purpose is to teach novice learners how to make a Chiffon Cake step-by-step. The project will be aimed at target users who don't have enough prior knowledge of the bakery but are willing to learn more about the bakery knowledge. The website provides a detailed walk-through of kitchen equipment and ingredient information. After that, there are two types of tutorials: the written version and the video version for them to know about the information. In terms of interaction, there are two subpages explaining some essential baking techniques and tools. During browsing, learners can click each equipment card to know about the essential information for this product and how to use it correctly. In addition, there is another subpage about a mini-course about useful bakery skills. The fixed sidebar tab provides students access to each session's flexibility. More importantly, after the usability testing, most participants said they need to have more support regarding why they could not make successful chiffon cakes. Therefore, a section to provide pop-up tips for target users after they studied the tutorials. Finally, the submission form is designed as they click the upload button then a success. A message window will show up.

Part 2:

- 1) Click the Sidebar on the left side to navigate to each section
- 2) Click the Nav Bar to navigate to each page, the "equipment" page shows a detailed introduction to the baking tool, and the "course" page shows the mini-course about how to take a cake out of the pan (the course content is referenced from an online source), and the "technique" page shows the essential baking skills to help novice learners.
- 3) Click each equipment card, will show different Wikipedia web pages about essential equipment.
- 4) In the submission session, click the "Upload your work" button will show the modal window.
- 5) Click "technique" from the Nav Bar to enter the "technique" page then click the "see Youtube tutorial", will link to relevant YouTube videos.

Part 3:

1) Bootstrap: the responsive layout for mobile screen size and desktop screen size)

- Reason: Bootstrap has the responsible layout to create multiple screen sizes.
- How to use: It provides the CDN link and style sheet to use.

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
rbsA2VBKQhggwzxH7pPCaAqO46MgnOM80zW1RWuH61DGLwZJEdK2Kadq2F9CUG6
5" crossorigin="anonymous">
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
kenU1KFdBle4zVF0s0G1M5b4hcpyD9F7jL+jjXkk+Q2h455rYXK/7HAuoJl+0l4"
crossorigin="anonymous"></script>
```

- Added features/elements:
 - i. Responsive webpage with grid systems.
 - ii. Card group for the separate video tutorial clips.
 - iii. The modal element for the final submission (only show the pop-up window of success message)

2) Swiper: the image carousel for displaying the chiffon cake images and recipes

- Reason: Bootstrap has different control settings of navigation and pagination, it also allows the customization of different effects by modifying the javascript
- How to us: The CDN link and style sheet can be pasted into <head >to use

```
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/swiper/swiper-bundle.min.css"/>
script src="https://cdn.jsdelivr.net/npm/swiper/swiper-bundle.min.js"></script>
```
- Added features/elements: Image carousels of the showcase section and recipe section

3) Tippy.js: the tooltips for the pro-tip section

- Reason: Tippy provides an easy way to create the tooltip and also allows customization of the style of the tooltip. A theme could be created in order to have individualized styles. Tippy can be applied to HTML elements as well.
- How to use: The CDN link can be pasted into <head >to use.

```
<script src="https://unpkg.com/@popperjs/core@2/dist/umd/popper.min.js"></script>
<script src="https://unpkg.com/tippy.js@6/dist/tippy-bundle.umd.js"></script>
```

The initialization is creating the JavaScript file and having the ID as same as the HTML element ID

```
tippy('#tip-image-1', {
  delay: 200,
  content: '<p style="f
  theme: 'tomato',
  animation: 'shift-toward',
  placement: 'right',
  interactive: true,
  allowHTML: true,
});
```

- Added features/elements: Tooltips of images that show some common failures of chiffon cakes.

4) Tabby.js: creates the fixed sidebar to navigate to each section

- Reason: Tabby is very flexible and easy to use. The styling is also customizable.
- How to use: The CDN link and style sheet can be pasted into <head>to use.

```
<link rel="stylesheet" type="text/css"
```

```
href="https://cdn.jsdelivr.net/gh/cferdinandi/tabby/dist/css/tabby-ui.min.css">
```

```
<script src="https://cdn.jsdelivr.net/gh/cferdinandi/tabby/dist/js/tabby.polyfills.min.js">
```

```
</script> The initialization is shown below.
```

```
<div class="grid">
  <ul data-tabs>
    <li><a data-tabby-default href="#showcase">Showcase</a></li>
    <li><a href="#kitchen-tool">Tools</a></li>
    <li><a href="#written-version">Tutorials(text)</a></li>
    <li><a href="#video-tutorial">Tutorials(video)</a></li>
  </ul>
</div>
<script src="js/vertical-tab.js"></script>
</div>
```

- Added features/elements: The sidebar located at the left side of the column

5) Animate.css Text animation

- Reason: Easy to implement and could customization different effect
- How to use: The CDN link can be pasted into head to use

```
<link rel="stylesheet"
```

```
href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/4.1.1/animate.min.css"/>
```

After installing, add the the class “animate__animated” and the animation name to the HTML element

```
<div class="col-8">
  <h1 class="animate__animated animate__fadeInDown">Zaku-Aries E
</div>
```

- Added features/elements: The Home page's heading will fade in when refreshing the page.

4. Part 4:

I started parallel prototyping during my iteration with three different designs: the Online Learning Course - How to make a Chiffon Cake, The Beginner's Guide to Coffee Beans, and Photography showcase Portfolio. After user testing, I found some participants claimed that it had been hard to navigate through different sections when they are baking and there was not much basic baking learning content for them to build the foundation. Therefore, it would be great to design a website to help novice learners who don't have adequate prior knowledge actively engage in a deeper learning process and better navigate in multiple sessions. The users' and peers' feedback for Lo-Fi prototypes was to add a floating window for ingredients and submission sessions for them to share their works within the community.

Then I moved on to the Hi-Fi design, the main user feedback are video tutorials are too long and users couldn't follow each step synonymously. At the same time, learners want to have two versions of teaching content (video and text) and some tips from experts to tell them why they couldn't make successful chiffon cakes. Moreover, some users stated that the fixed ingredient button was distracting during learning. Therefore, my solution is to separate the video into different sections, provide a written version of the recipe, and also provide some tips when learners experience some difficulty.

When implementing my design, I first start by searching for Java script libraries for image carousels, the fixed sidebar, and tooltips for HTML elements. After setting up the entire layout, I started to write the CSS file for each card group's style and added animation components. After I finished the index file, I started to lay out each subpage and try to implement bootstrap to achieve a fully responsive website. The main change in the design is the layout of the video player. It was originally an entire video player with a vertical playlist, but when considering the feasibility of coding, I decided to separate them into different sections with some important descriptions.

Part 5:

The main challenge I encountered was implementing the responsive layout supported by bootstrap. My original idea was to design two different websites that work for mobile and web. However, I realized that it would be more accessible to have a fully responsive website to work for both sizes. Therefore, I have to change my finished codes to adapt to the bootstrap settings which need to rewrite most parts of the code. It was a challenging task for me but it was great to work with TA and explore more organized and structured ways to build the website. This process made me realize the problem of the waterfall method for design and it is important for designers to know about the technical limitation as earlier as possible.


Accessibility: please refer to [Appendix](#)

Website Reference:

1. Chen, N. (2018, May 9). *How to Make the Perfect Chiffon Cake*. Just One Cookbook. <https://www.justonecookbook.com/perfect-chiffon-cake/>
2. <https://www.facebook.com/allrecipes>. (2022). *Chiffon Cake*. Allrecipes. <https://www.allrecipes.com/recipe/7892/chiffon-cake/>
3. *How to Get Cake Out of a Pan: 5 Easy Methods - 2022 - MasterClass*. (2020). MasterClass. <https://www.masterclass.com/articles/how-to-get-cake-out-of-pan>
4. *How Does a Kitchen Mixer Work?* (2017). Home Guides | SF Gate. <https://homeguides.sfgate.com/how-does-a-kitchen-mixer-work-13408721.html>
5. CraftyBaking. (2013). *Mixing Methods - Blending and Mixing Techniques in Baking | Crafty Baking | Formerly Baking911 | CraftyBaking | Formerly Baking911*. CraftyBaking | Formerly Baking911. <https://www.craftybaking.com/howto/mixing-method-basics>
6. Taste.com.au. (2007, January 31). *How to measure ingredients properly*. [Www.taste.com.au. https://www.taste.com.au/baking/articles/how-to-measure-ingredients-properly/myzxyjk](https://www.taste.com.au/baking/articles/how-to-measure-ingredients-properly/myzxyjk)

Appendix:

Home Page

**WAVE**
web accessibility evaluation tool

powered by
[WebAIM](#)

Address: <https://mengzhey.github.io/little-sweet-aries>

Styles: OFF ☐ ON ☒

Summary

Summary


Details


Reference


Order


Structure


Contrast


 **0**
Errors

 **0**
Contrast Errors

 **7**
Alerts

 **25**
Features

 **20**
Structural Elements

 **43**
ARIA

View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

**WAVE**
web accessibility evaluation tool

powered by
[WebAIM](#)

Address: <https://mengzhey.github.io/little-sweet-aries>Styles: OFF ☐ ON ☒

Details

Summary

Details

Reference

Order

Structure

Contrast

 **7 Alerts**

 1 X Orphaned form label

 2 X Skipped heading level

 4 X HTML5 video or audio

 **25 Features**


 19 X Alternative text

 4 X Linked image with alternative text


 1 X Form label


 1 X Language

Equipment Page







 **WAVE**
web accessibility evaluation tool

powered by [WebAIM](#)


Address: <https://mengzhey.github.io/little-sweet-aries> 


Styles: OFF  ON


Summary


     


Summary Details Reference Order Structure Contrast


 **0**
Errors


 **0**
Contrast Errors

 **1**
Alerts

 **6**
Features

 **8**
Structural Elements

 **0**
ARIA

 View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

 **WAVE**
web accessibility evaluation tool

powered by [WebAIM](#)

Address: <https://mengzhey.github.io/little-sweet-aries> Styles: OFF  ON

Details


Summary Details Reference Order Structure Contrast

☒  **1 Alerts**
☒ 1 X Skipped heading level
 

☒  **6 Features**
☒ 5 X Alternative text
     
☒ 1 X Language
 

☒  **8 Structural Elements**
☒ 1 X Heading level 1
 
☒ 4 X Heading level 5
    
☒ 1 X Header
 

Technique Page

**WAVE**
web accessibility evaluation tool

powered by
[WebAIM](#)

Address: <https://mengzhey.github.io/little-sweet-aries>

Styles: OFF ☒ ON

Summary

Summary


Details


Reference


Order


Structure


Contrast


**0**
Errors

**0**
Contrast Errors

**6**
Alerts


**5**
Features

**8**
Structural Elements

**0**
ARIA

View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

**WAVE**
web accessibility evaluation tool

powered by
[WebAIM](#)

Address: <https://mengzhey.github.io/little-sweet-aries>

Styles: OFF ☒ ON

Details

Summary


Details

Reference



Order

Structure



Contrast

☒ **6 Alerts**






☒ 1 X A nearby image has the same alternative text




☒ 1 X Skipped heading level








☒ 4 X YouTube video






☒ **5 Features**

☒ 4 X Alternative text



☒ 1 X Language




☒ **8 Structural Elements**

☒ 1 X Heading level 1

9

Course Page


**WAVE**
web accessibility evaluation tool


powered by
[WebAIM](#)


Address: <https://mengzhey.github.io/little-sweet-aries> →


Styles: OFF ☒ ON


Summary


**Summary**


**Details**


**Reference**


**Order**


**Structure**


**Contrast**


**0**
Errors


**0**
Contrast Errors

**0**
Alerts


**12**
Features

**4**
Structural Elements

**32**
ARIA

 View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.


**WAVE**
web accessibility evaluation tool


powered by
[WebAIM](#)


Address: <https://mengzhey.github.io/little-sweet-aries> →


Styles: OFF ☒ ON


Details


**Summary**


**Details**

**Reference**

**Order**

**Structure**

**Contrast**

☒ **12 Features**

☒ 11 X Alternative text
