Website Implementation Report

DECO1400/7140 – Introduction to Web Design
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1. SUMMARY OF IMPLEMENTATION

1.1 HTML

In this website implementation, the following 8 html were implemented:

Name	**Usage**
index.html	**id:** "*title*" - display the title of the page; "*homepageButton*" - The "Start" button, by default jumps to *pizzaHomepage.html*; **class:** "*box*" - display window for main products with dynamic page-turning effect (Gitee, n.d.);
pizzaHomepage.html	**id:** "*title*" - display the title of the page; "*mainSection*" - Includes the main image of the page and three buttons that link to *pizzapage.html.*
pizzapage.html	**id:** "*mySidenav*" - Side Navigation Buttons，can jump to different areas of this page div (W3Schools, 2022); *"tittle1", "tittle2", "tittle3"* - display the *title* of three types of pizzas. **class:** "*img_list*" - use *table,* including the *images, names, energy* and *descriptions* of pizza (Gitee, n.d.);
pizzaSelectpage.html	**id:** "*product*" - include the title, image, info, options of current product. **class:** "*row*" - Slideshow Gallery (W3school, 2022), display other pizzas.
side&chickenpage.html	**id:** "*title*" - display the title of the page; "*mainSection*" – include shopwindow of main images (Gitee, n.d.) and the description of sides and chickens. **class:** "*img_list*" - use *table,* including the *images, names, energy* and *descriptions* of sides and chickens (Gitee, n.d.);
drink&dessertpage.html	**id:** "*title*" - display the title of the page; **class:** "*tx*" - use *ul and li,* including the *images*, *names*, *energy* and *descriptions* of drinks and desserts (Gitee, n.d.);
checkOutpage.html	**id:** "*forOrderDetails*" - display the details of the item been added into cart; "*checkoutInfo*" – use *label* and *input,* collecting the information.

thankyouPage.html	**id:** "*backImage*" - background image; "*thankyouSection*" - display thank you message; "rateSection" – include Star Rating (W3school, 2022) and review form.

Table 1.1: Names and descriptions of HTML

Additional note: Each html contains a *<div id="headerContainer"*> table of contents and a *<div id="footer"*> bottom navigation bar. The "*headerContainer*" creates a directory that jumps to: *index.html, pizzaHomepage.html, side&chickenpage.html, drink&dessertpage.html, checkOutpage.html.*

1.2 CSS

This website uses 8 css - style.css is linked to index.html and the others are linked to the corresponding name html. In addition to setting the usual *width, height, margin, padding, position, colour* etc., *hover, visited* are also set to add dynamic effects to the interface.

```
.column img:hover {
    transform: scale(1.1);
    transition: all .3s;
    }
```

Image 1.2 Example of hover in pizzaSelectpage.css

1.3 JavaScript

The following code references the W3school and is used to implement Accordion (W3Schools, 2022).

```
//https://www.w3schools.com/howto/howto_js_accordion.asp
var acc = document.getElementsByClassName("accordion");
var i;

for (i = 0; i < acc.length; i++) {
  acc[i].addEventListener("click", function() {
    this.classList.toggle("active");
    var panel = this.nextElementSibling;
    if (panel.style.maxHeight) {
      panel.style.maxHeight = null;
    } else {
      panel.style.maxHeight = panel.scrollHeight + "px";
    }
  });
}
```

The following functions are used to indicate that an item has been successfully added.

```
function myFunction() {
  alert("You have successfully added the item! ;)");
}
```

The following function is used to display the hidden pizza div.

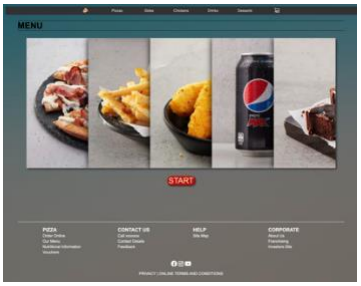
```
function triditionalPizzasFunction() {
  document.getElementById("triditionalPizzas").style.display = "block";
}

function premiumPizzasFunction() {
  document.getElementById("premiumPizzas").style.display = "block";
}

function veganPizzasFunction() {
  document.getElementById("veganRange").style.display = "block";
}
```

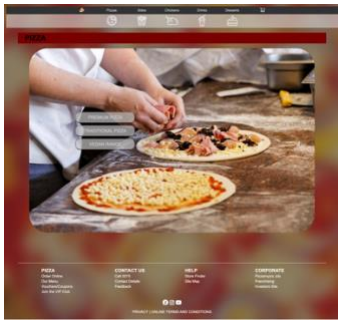
The following functions are used to simulate the display of items that have been added to the shopping cart.

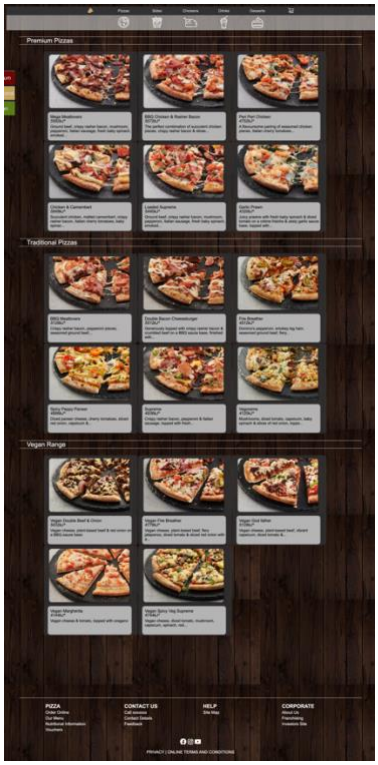
```
function checkoutFunction(){
  document.getElementById("orderDetails").innerHTML = "1 MEGA MEATLOVERS MINI Classic BBQ Souce 16.00$";
}
```

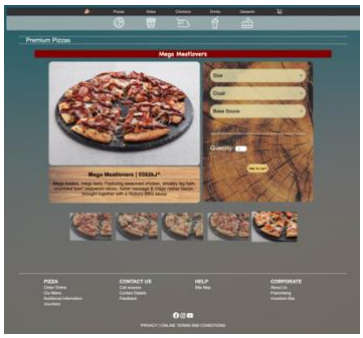
2. SCREENSHOTS OF THE WEBSITE

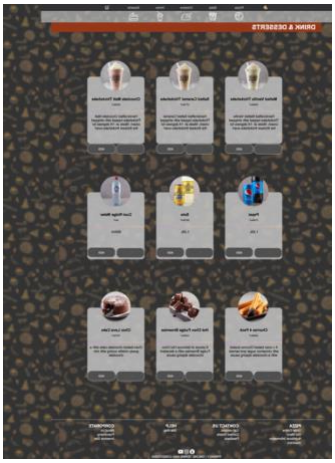
Below are screenshots of the websites implemented in this report, clear images will be included in the appendix, all images within the websites are from Domino's (Domino's, 2022):

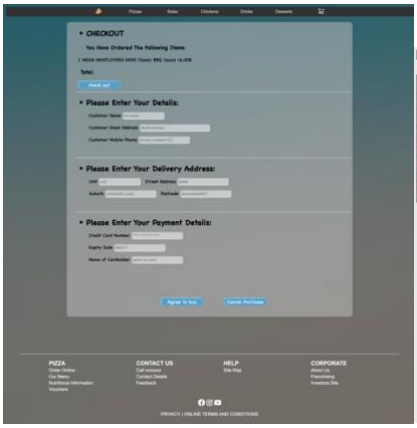


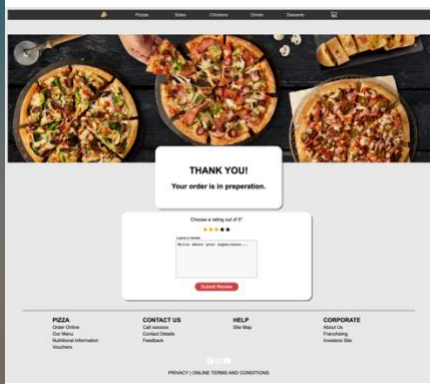












3. CHALLENGES

There were three main challenges encountered during the implementation of this website. At first, when I added the button to the page, I used the <input>. Type = button was successfully added, but when I tried to connect to another html file there was a problem. I tried to use “href”, but this did absolutely nothing. Therefore, I changed the method and used <a> to add a link, so that not only could I successfully jump to the target html page, but I could also add a function which written in js.

The second challenge was that when I was working on pizzaSelectpage.html, I required to implement a selection design like above:

Image 3.1 Collapsibles/Accordion

I have no idea about how to implement such an effect. After asking my tutor, I learned about the Collapsibles/Accordion design (W3Schools, 2022). The reference code was stylistically modified according to the high-fidelity prototype.

The third challenge is that the web pages are not only required to work on pc devices, but also need to be flexible and work on tablet and mobile devices. I used px (units) to define width, margin and padding at the beginning of the build, but this made the page a mess on tablet and mobile. To solve this problem, I modified the specific value of px to a percentage representation to accommodate screens of various resolutions.

4. Nielsen’s ten Usability Heuristics

The final implementation of the website pages is consistent with the high-fidelity prototype, and the following evaluations improves on the design decisions made in the website design report, retaining some of the design.

Nielsen’s usability heuristics	**Evaluation**
1. Visibility of system status	At the bottom of the Menu section of each page there is a title to give users feedback on the location. It is clear to the user where the current page is located.
2. Match between system and the real word	The five images that serve as the MENU are designed to be stacked in a page-turning format to simulate a real user flipping through the menu for easy understanding. In

	addition, a wooden background was chosen at pizzapage.html to simulate the effect of food being placed on the table.
3. User control and freedom	The "Cancel Purchase" button was designed to help the user return to the product screen to continue shopping and keep the items that have been collected in the cart. If the user clicks on the wrong selection, the slide gallery in pizzaSelectPage.html helps the user jump to the desired item. (But this function is not implemented, only the interface effect)
4. Consistency and standards	A shopping cart icon is set in the top right corner of the page. Usually, shopping sites use the shopping cart icon to collect users' selected products. However, the shopping cart function needs to be improved. Normally, clicking on the shopping cart will bring up the added items window directly instead of navigating to the checkout page.
5. Error prevention	As in the prototype, the "Start" button was designed to prevent users from clicking on the wrong catalog or not knowing how to start ordering. Also, the selection box for the quantity of all products is designed to default to 1, in case the user forgets to select the quantity.
6. Recognition rather than recall	Everything is presented in the form of icons and text. Users do not have to enter the desired requirements themselves, but simply click to select them.
7. Flexibility and efficiency of use	At the top of each page, the color pizza icon can go directly to the homepage, while other text and icons can navigate to the corresponding window for the user to choose. In pizzapage.html, Side Navigation Buttons have been implemented on the left side to jump to different pizza types.
8. Aesthetic and minimalist design	Because the product images in the main body of the page are highly saturated with color, a plain white icon was designed for the topmost menu bar to balance the interface. According to the design in prototype, when the content of the page is colorful, a single-color background is used to make the interface comfortable. When dealing with a dark background and text, a backdrop is added to the text to highlight the content. However, when implemented, it was found that the colour distinction had limited effect, so zoom in/out animations were added to allow users to focus on the information they needed.

9. Help users recognize, diagnose, and recover from errors	When an order is submitted and found to be empty, an alert window will pop up to remind the user to add the item. This function is missing at the time of evaluation because it is difficult to complete the identification of information.
10. Help and documentation	When the mouse is hovered over the product image, it zooms in/out to show the details of the image and the animation prompts the user to click to get more details. "Choose a rating out of 5" is used to prompt the user how to rate.

Table 4.1 Evaluation for this Website based on Nielsen's usability heuristics

5. CONCLUSIONS AND FUTURE WORK

5.1 CONCLUSIONS

This report presents an ordering website for pizza and related items, including 8 html, 8 css, 1 JavaScript and image files. The main functions are to display items, select items, add to cart, checkout and leave feedback. The referenced code and images are shown in the above article. The interface design is informed by Nielsen's ten Usability Heuristics and has been refined for implementation.

5.2 FUTURE WORK

For future work, the following 3 points could be implemented:

a) In this site, there is no construction of CONTACT US, HELP, CORPORATE which are in the map site, although these pages are displayed in the footer of the current site.

b) The cart icon in the plan to pop up items that have been added to the cart is not implemented on the website but jumps directly to checkoutPage.html. This is not a design that complies with the evaluation for making it difficult to see what items the users have added.

c) In pizzaSelectpage.html, the design goal is to be able to link the images in the Slideshow Gallery to the corresponding product page, but after reviewing the information, I found that I may need to use js to connect to the database, which is hard to implement with the current capabilities.

6. REFERENCES

(n.d.). Retrieved from Gitee: https://gitee.com/codexiaoke/css-animation/

Domino's. (2022). Retrieved from Domino's: https://order.dominos.com.au/

W3school. (2022). *How TO - Slideshow Gallery*. Retrieved from https://www.w3schools.com/howto/howto_js_slideshow_gallery.asp

W3school. (2022). *How TO - Star Rating*. Retrieved from https://www.w3schools.com/howto/howto_css_star_rating.asp

W3Schools. (2022). *How TO - Collapsibles/Accordion*. Retrieved from https://www.w3schools.com/howto/howto_js_accordion.asp

W3Schools. (2022). *How TO - Side Navigation Buttons*. Retrieved from https://www.w3schools.com/howto/howto_css_sidenav_buttons.asp

7. APPENDIX

Image 7.1 index.html

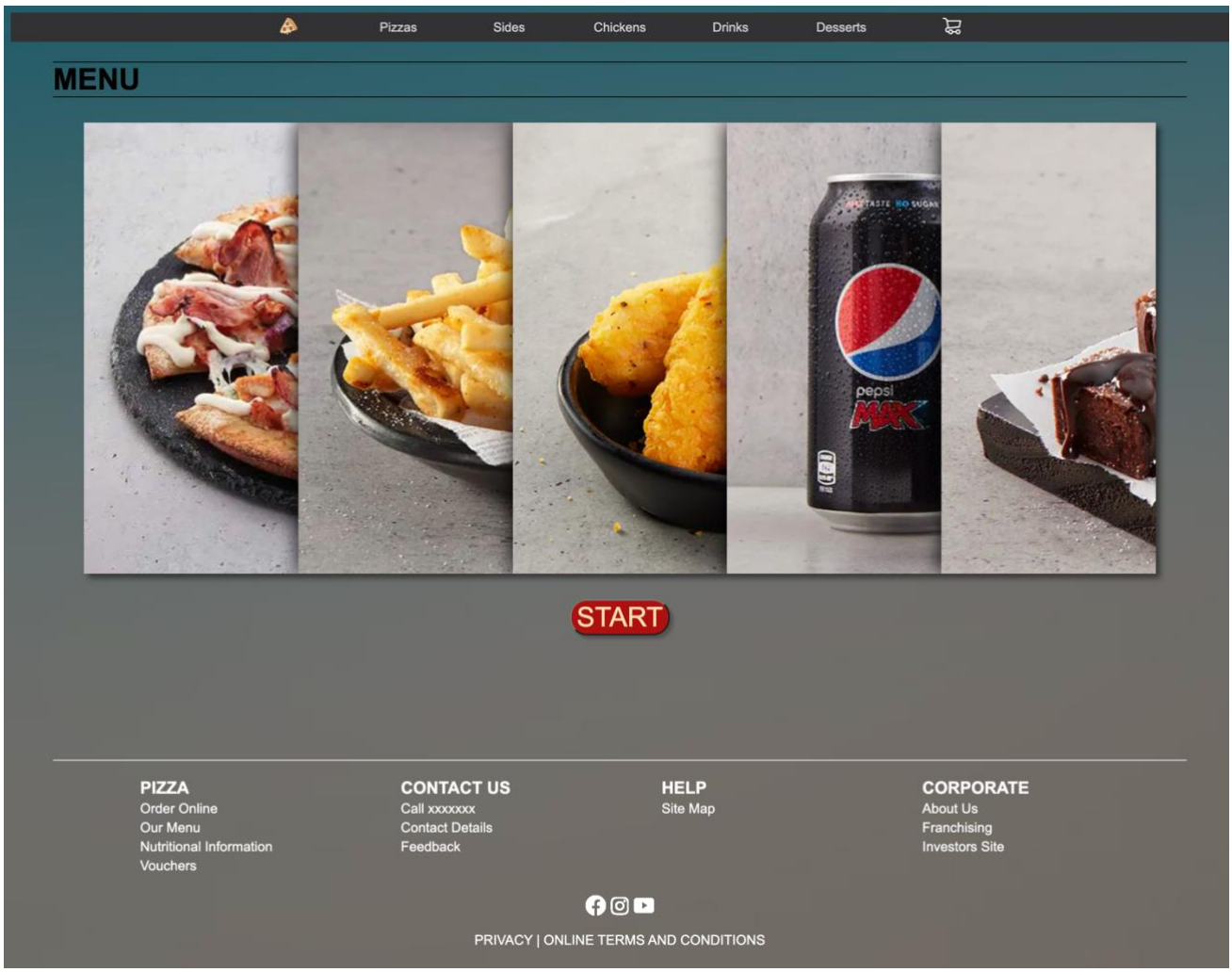


Image 7.2 pizzaHomepage.html

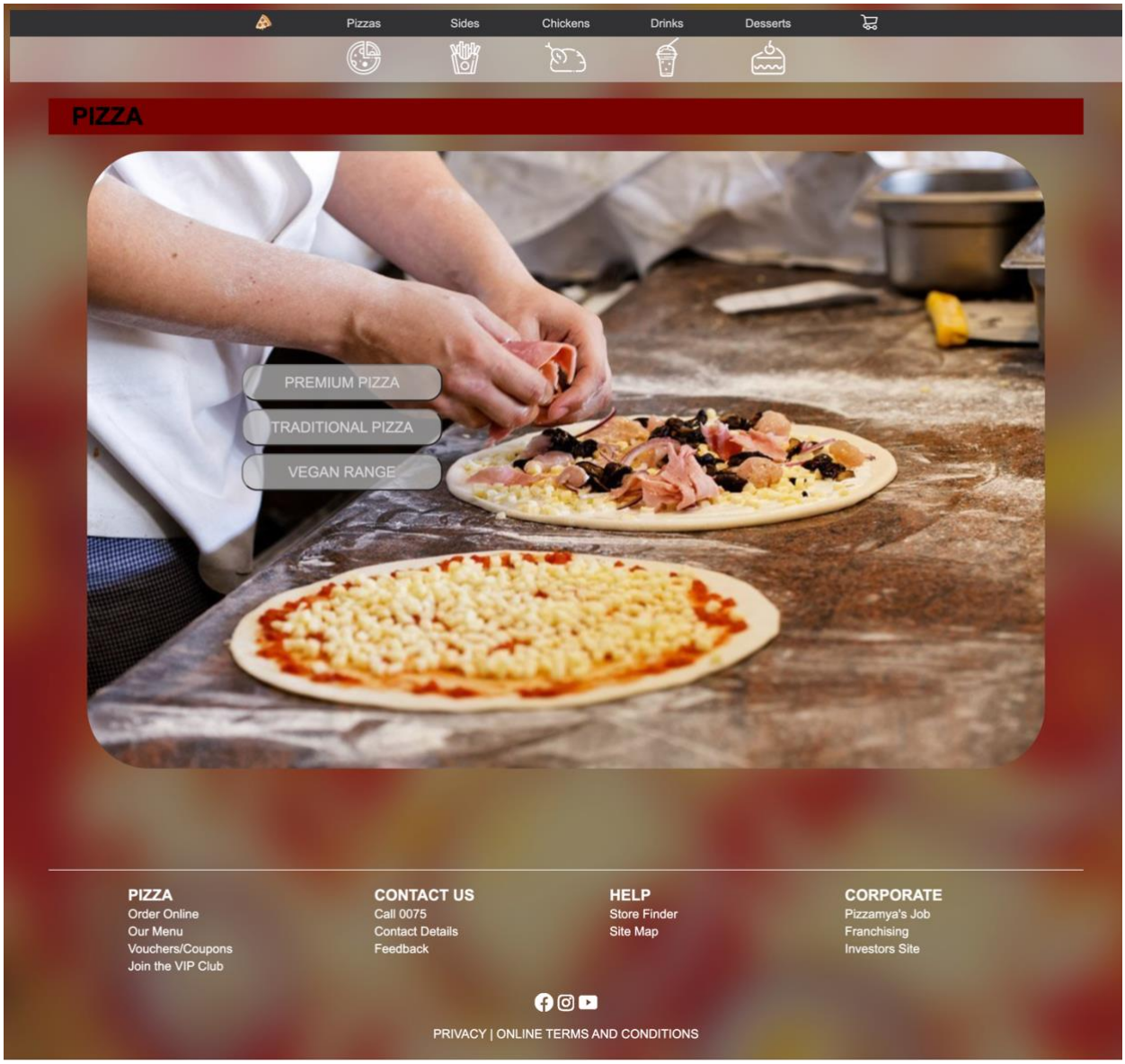


Image 7.3 pizzapage.html

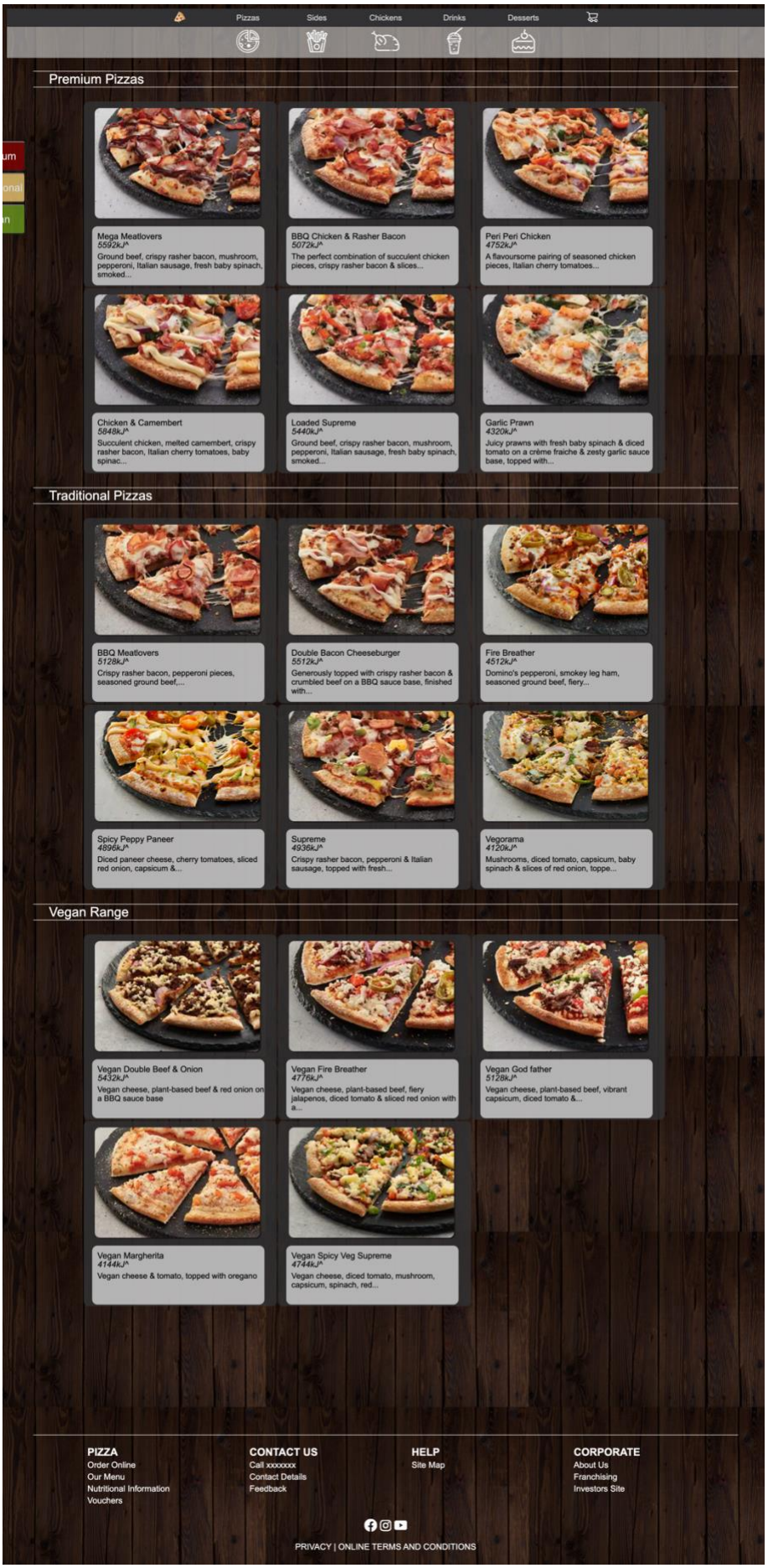


Image 7.4 pizzaSelectpage.html

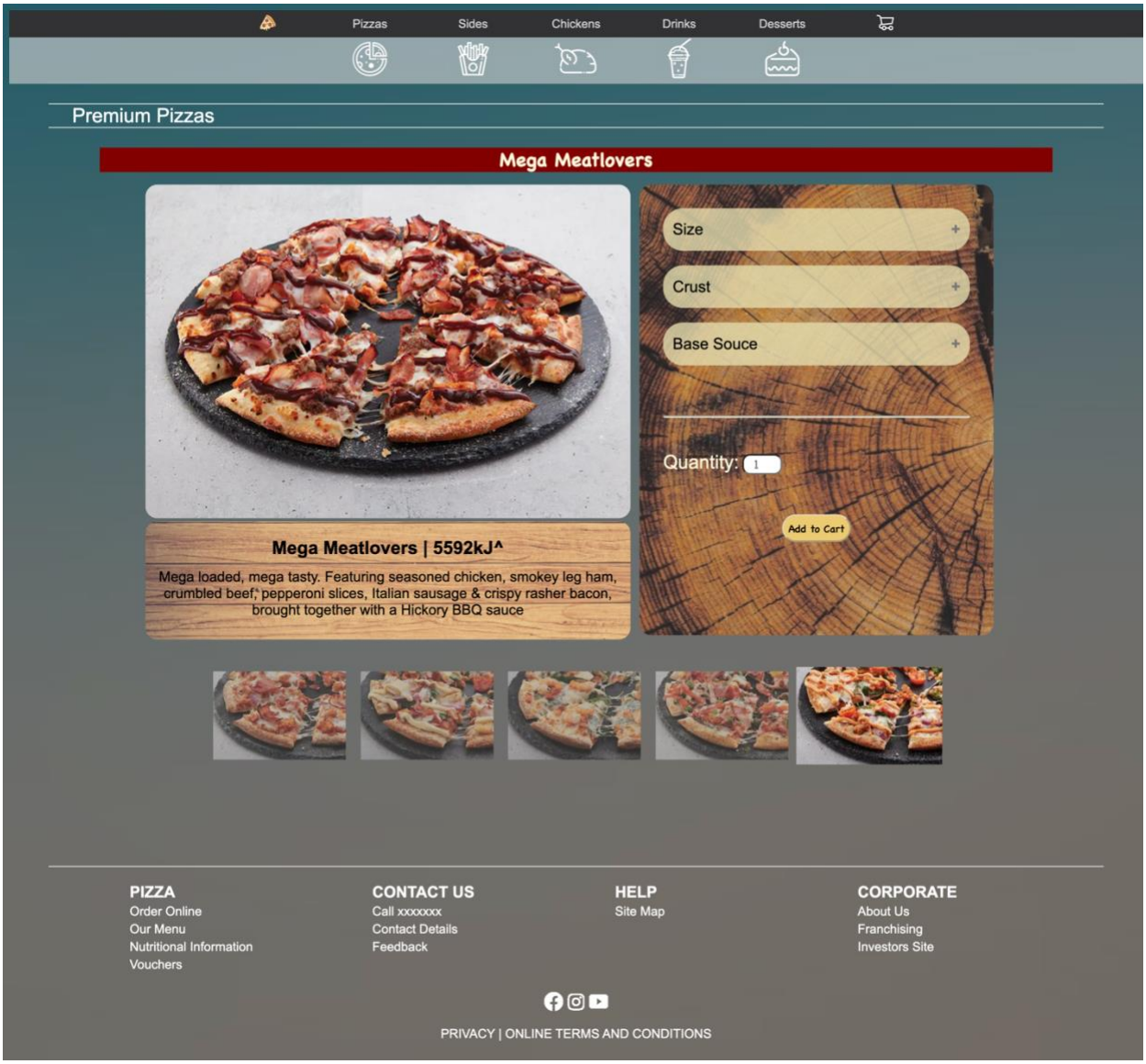


Image 7.5 side&chickenpage.html

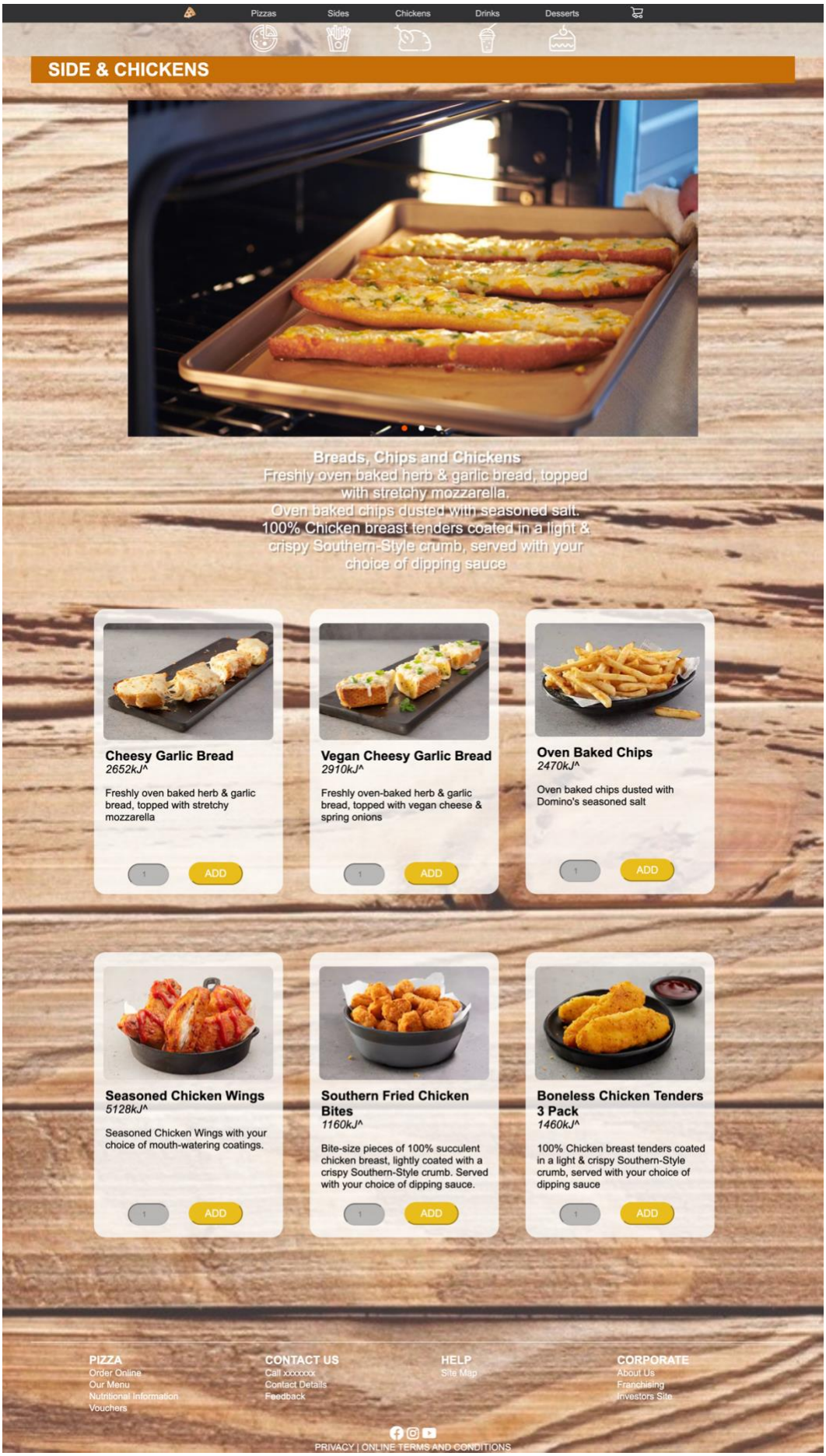


Image 7.6 drink&dessertpage.html

Image 7.7 checkOutpage.html

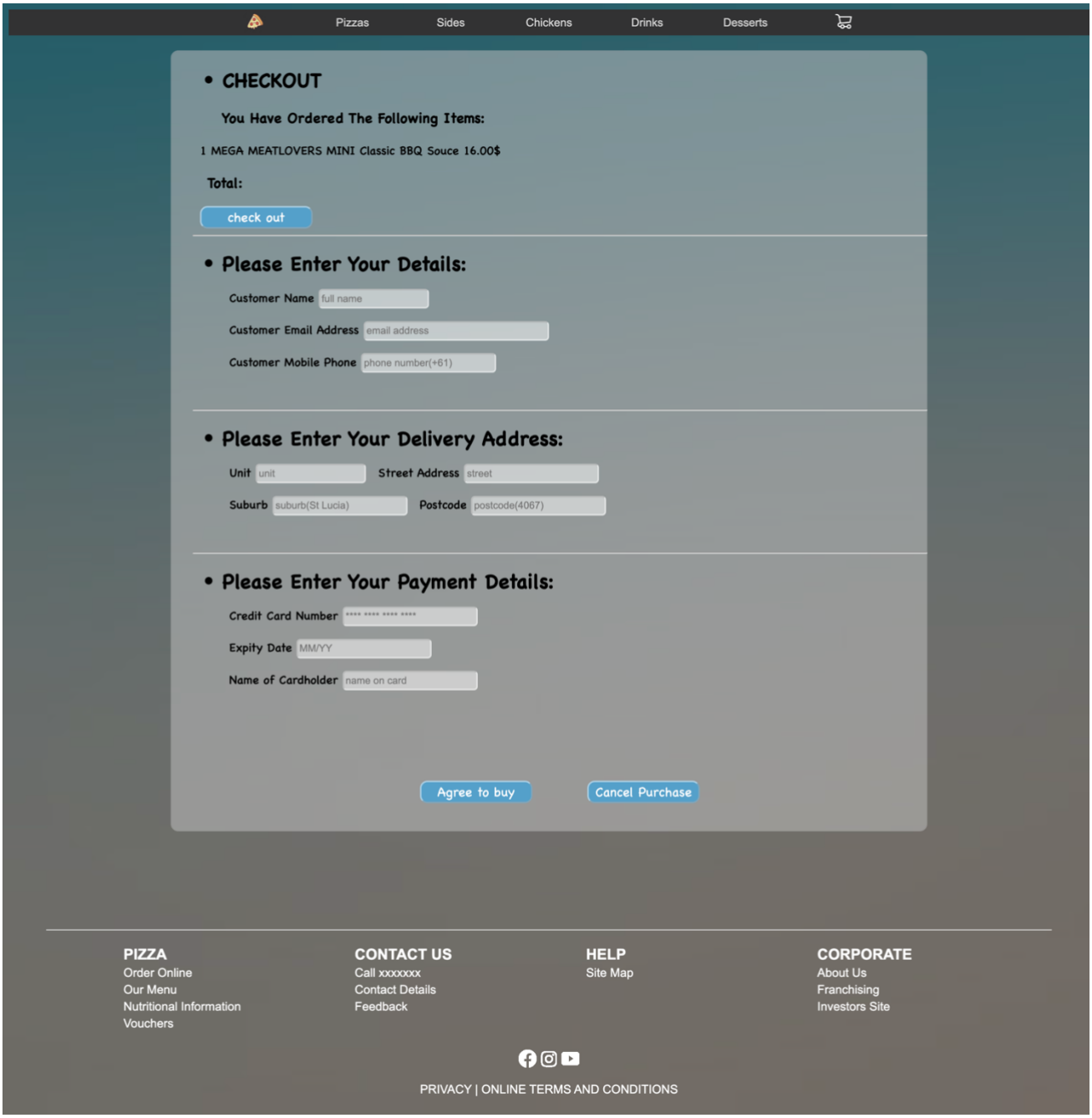
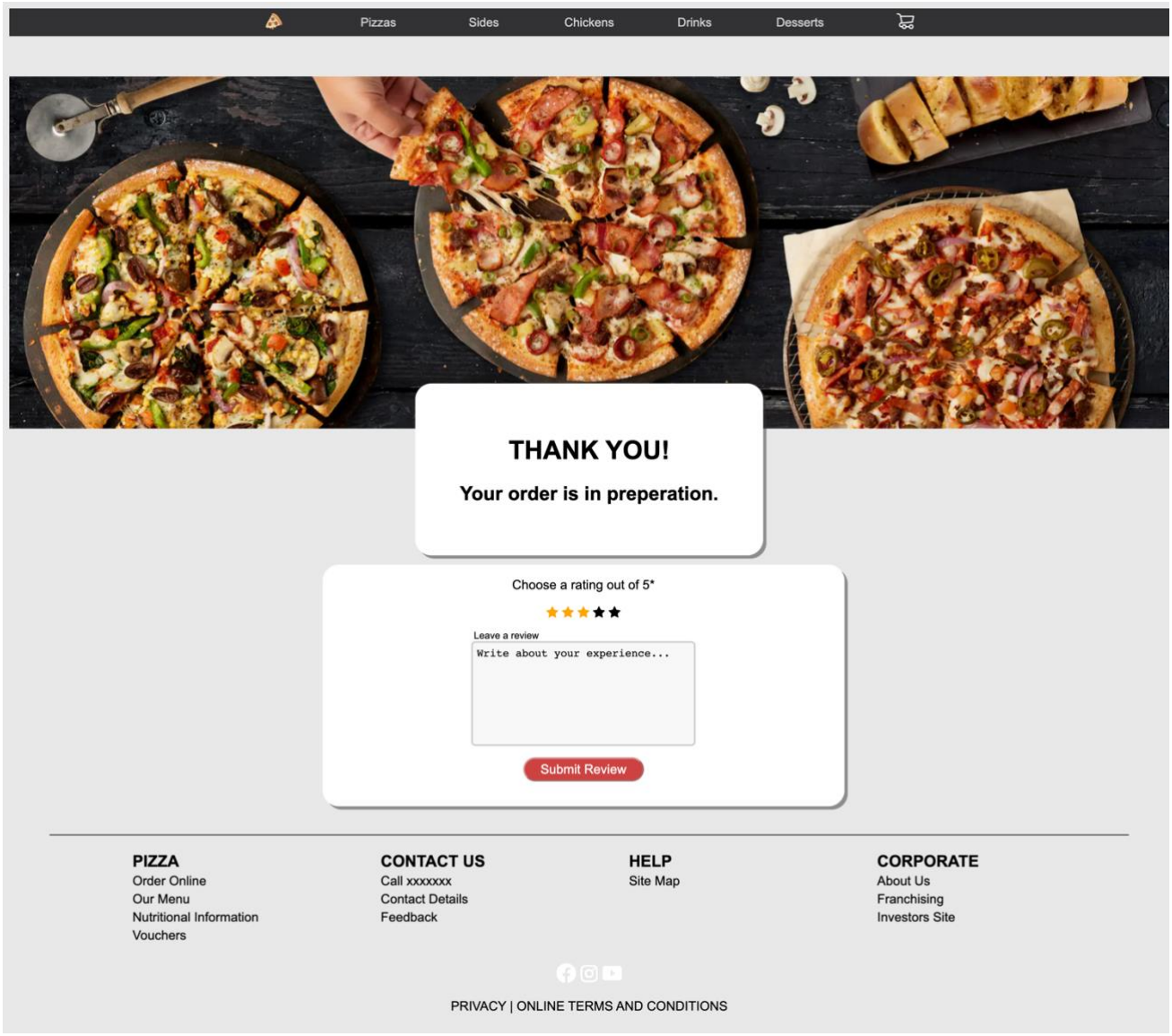



Image 7.8 thankyouPage.html