

Culinary Code, Critical Evaluation

Web Technologies

SET08101

https://andy-dickinson.github.io/web_tech_40538519/

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Introduction

This report sets out to reflect upon and critically evaluate the 'Culinary Code' website, developed as a project for Web Tech, a module at Edinburgh Napier University. The project was to design and implement an online client-side website on the topic of food to demonstrate skills in HTML, CSS and JavaScript.

The finished project website can be found at:

https://andy-dickinson.github.io/web_tech_40538519/

Discussion – Design Differences

Overall, the majority of the planned features set out (Dickinson, 2023) have been accomplished and all the core features have been implemented. With regards to the initial plan, there have been some minor changes:

- The copyright information is now contained within the 'About Us' page.
- Logo has been cut down in header.
- Slogan not used in header.
- Both 'Recipe-of-the-Week' and 'Quiz' images on the home page are clickable rather than buttons being used.
- Nav-bar flexbox justify-content is set to 'space-around' rather than 'flex-start'. This means the content takes up the entire nav-bar, instead of being left-aligned as planned.

To expand on the above, the copyright information was thought to fit well within the 'About Us' page as a category.

The logo was changed in the header due to being too large for the space on the header bar. When it was attempted to be adjusted, the logo text was too small to make out, hence the decision to design an icon version of the logo. Likewise, the slogan didn't look right when used in the centre of the header bar. This led to the website name being used in place. Due to the smaller version of the logo used here, the idea was considered of using a logo banner.

Adding a logo banner led to a sticky nav-bar being used, which is quite aesthetically pleasing as it scrolls up the page and then locks in place below the header.

Buttons were not used on the home page as it was decided that clickable images with overlay text would be visually more pleasing, along with a larger clickable area. Buttons were also to be used within the quiz, which meant the opportunity to gain experience with using form controls and buttons was not lost due to this choice.

The nav-bar was considered more appealing when the links were evenly spaced across the page, rather than bunched to one side, leading to the option used.

Due to time pressures, there was some slight deviation from the implementation plan in an attempt to gain the features deemed most valuable. In addition to the core features, the following additional features were successfully implemented:

- 'Contact us' page.
- 'About us' page.
- 'Site map'.
- Changing Units (and temperature – see pizza recipe) in a recipe with radio buttons.
- Change ingredient quantities and units grammatical number (where applicable) when portions changed with select box.
- Quiz page including buttons which are created and manipulated with JavaScript.
- JSON object being used to store recipe category details, along with image and source paths, allowing for easy modification. This object is stringified and stored in local storage (saved on home page) for access from every website page.
- Browser tab icon.
- Clickable images and links change colour in various ways (dependent on text and surrounding background colour) when mouse is hovered over them. Nav and footer link backgrounds also change when clicked.
- Sticky nav-bar and header.

Most of these are discussed further within the achievements and challenges section below.

Recommendations – Enhancements

The website would benefit from the following being implemented (unfortunately time did not allow for these to be completed for this project):

- Ingredient items being switched between singular and plural (as necessary) when changing units or portions. Currently quantity (e.g. 3 to 6) and units (e.g. cup to cups) are modified ok, however items (e.g. egg(s)) are not modified for grammatical number. Refer to the Chinese Chilli Chicken recipe as an example.
- A print function (or generate shopping list) function. As specified in additional features in the initial design, the website would benefit from the ability to export the ingredients of a recipe (either to a printer or to pdf).
- Breadcrumbs. The website has been structured to maintain history (by way of each recipe and category page has its own html page) if a page is refreshed or the back button is pressed. So in theory, this should be fairly straightforward to implement.
- Making entire header clickable to return to home page. At present, just the logo icon links back to the home page. This may not be obvious to the user. Making the entire header clickable would increase the area which would turn the mouse icon to a link pointer, increasing accessibility.
- Adding tooltips – This could be as simple as adding just for the header bar; return to home page, or as complex as adding tooltips for every link and details of where the link points to.
- Adding a search bar / filter to each of the list / category pages and home page. This would further increase the accessibility of the website allowing the user to find recipes or information more specific to their needs.
- User forms for contact us page. This was an aim of the project, however it was discovered that to submit user forms and have the data emailed would require server-side. Due to this, currently 'mailto' is used so when the user clicks the email address, an email client popup box appears. This is not ideal as the user may be off put by the popup.
- Server-side would allow a quiz leaderboard to be added.
- Adding social media would provide the website with further reach and allow for a wider audience.

- Adding audio to the quiz. The initial design was to add audio to the home page, however this was decided against so as not to annoy the user on arrival. The controls panel also did not fit in aesthetically on the home page. Adding audio to the quiz page may provide an increased user experience along with giving the user feedback when they click their answer choice.
- Expansion of the site – More recipes and quiz questions. This has been designed to be easy and fast as new quiz questions can be added directly to the JSON object within quiz.js. Recipes can be added to the “recipes” list in the JSON object within read-json.js (this is used by the category pages when trying to find relevant recipes). When a new recipe is added, it should also have an associated html page created. It should be ensured that the correct portions are selected along with the correct units radio button is checked.

Achievements and Challenges

The implementation began by designing the logo (Brandcrowd, 2023). This went through a few modifications, especially with colour and shape. As mentioned above, the main logo was required to be cut down to an icon for use in the header. There were difficulties with CSS to get the banner logo to look right as it got stretched for different viewport widths. The solution was to use flexbox and colouring the background of the container. The banner was also getting lost behind the header (which was fixed), making the header position sticky overcame this. The banner could have been given a relative position, but that ended up affecting the rest of the page elements and would require further adjustments.

It was the intention to avoid any copyright infringement, and so all images have been sourced from copyright free websites ((Pixabay, n.d), (Unsplash, n.d.) and (Adobe, 2023)) . These have been chosen to be as close to the original recipe images as possible.

Root paths were originally used, which worked fine locally on VS Code. However, this caused problems when putting the site on GitHub pages. Relative paths are now used, meaning an extra parameter was required to be prepended when calling JavaScript functions which use the JSON object paths.

The site was designed throughout to be responsive as much as possible. Initially there was trouble using @media. Eventually it was discovered that the meta for viewport was missing. Once this was incorporated, the scaling had all changed. Due to this, the majority of units used were changed to 'vw' to maintain a constant width regardless of device used. The layout changes at 600px (max-width) for increased accessibility on mobiles.

All pages were validated via W3C validator (W3C, 2013). Due to loading the list pages via JSON object, some paths had not been entered for images and source files. This caused some errors flagged by the validator, so the paths were entered on the HTML pages. This also adds a layer of protection against the JSON object not being read correctly for any reason, or if local storage is not working.

Initially it was the intention to store the recipe details in a JSON file, however this required the script file to be of type 'module' along with the use of an import statement. Both of these ended up being blocked by the browser, so a JSON object was used inside a regular JS file (the old JSON file attempt has been left on the GitHub repo). This works fine, and allows easy modification of recipe image or source paths or even adding additional recipes. JQuery was considered, but external API's were avoided to gain further experience with JavaScript. The JSON object is used to obtain the 'recipe of the week', 'popular recipes', list page image paths, as well as recipe details.

The site was slow to load on some pages (especially on a new device). To solve this, all images were compressed, dramatically improving load times.

When programming the quiz functionality, and allowing selections to be changed after the next question has been loaded (if the user got an answer wrong and wants to find the correct one for example), there was an issue where the wrong button changed colour. To fix this, buttons were changed from a class to a unique id based on question-answer index (e.g. id="1-3" = question 2, answer 4).

The recipes have been given an 'F-layout' design as planned which does seem to improve readability. As a whole, it is felt the presentation is a success.

When modifying the recipe units and portions with JavaScript, there was a loss of information occurring as the conversion was being done (not 100% accurately) each way. To get around this, the original values are now stored as global variables (which get reset each time a new recipe or page is loaded). When the units (or portions) are set to the original, the original values are restored.

The contrasting colour scheme gives the site a clean look with splashes of red for calls-to-action. The only place the colour scheme differs is the quiz page. This was to set it aside from the other pages, and to trial a background-image which would be fixed allowing the quiz content to scroll over the image. This did not work for mobile as the image would zoom in with each question added, so the background has been set to plain black for small screens.

Overall, it is felt that the website has turned out to be a success. The skills learnt during the development of Culinary Code will be extremely valuable going forward.

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