

# Responsive Redesign

Brown Nutrition Tracking Website

**ZAK WEGWEISER**

CS1300 UI/UX  
Brown University

# Introduction

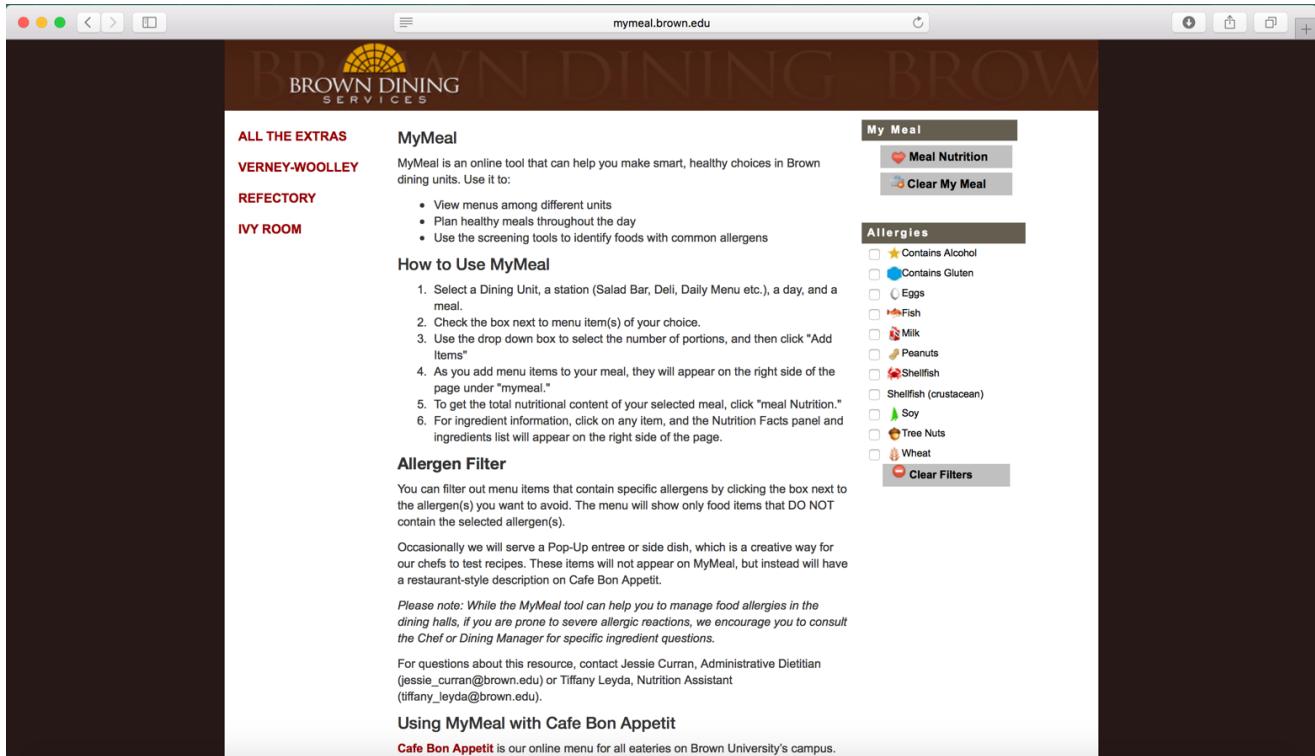
## Brown Nutrition Tracking Website

### What is the goal of this project?

An interface's usability is critical to user interface designers. The visual aesthetics of an interface can affect a user's impression, but the quality of the design is judged way beyond its appearance. This means that an interface must have the ability to adapt to the medium in which it is presented. The goal of this project is to redesign a real-world interface to improve its usability, responsiveness, and visual design.

### Brown's MyMeal Website:

I chose to redesign Brown's nutrition website (<http://mymeal.brown.edu/NetNutrition/1>) because the site holds valuable information, but presents it inefficiently to its users. In its current state [Fig 1], it is not very clear how to use the website (I encourage you to take a minute and visit the link to get a better understanding of what I mean).



[Fig 1 – Current Brown Nutrition Website]

Not only that, but the actual purpose of the interface is unclear. For instance, look at the logo. It makes it seem as if this is where you go to order food, not learn about nutrition. If a user sticks around long enough to realize that all the text in the middle is just an instruction manual and the actual content is presented oddly in the sidebars, they still have trouble learning how to use the interface. I want to create a design that easily allows students to select the dining hall they are going to and view the nutritional value of their desired meal, without having to read mounds of text and navigate through tedious menus.

### **Usability Redesign:**

My first step is to wireframe a new design that would improve MyMeal's usability. My goal is to create a mockup that fosters intuitive design, efficiency of use, ease of learning, memorability, and overall satisfaction. My mockups are not intended to be final products, but rather, well-planned drafts that allow me to organize the layout and interaction of my interface without being distracted by factors such as colors and typefaces.

### **Visual Redesign:**

Then, I start focusing more on the website's visual appeal, using principles about color, typography, layout, and simplicity. The visual redesign serves as a final draft of my improvements, and then I explain why my redesign increases the usability of the site.

### **Adding Responsiveness:**

Finally, I attempt to code the webpage from my visual redesign. The goal of this step is to present a final product that demonstrates all the claimed improvements as well as adding responsiveness depending on the device size. The final design and implantation can be viewed here:

Responsive website: <https://cs1300-responsive-redesign.herokuapp.com/index.html>

Code: <https://github.com/zweg25/responsive-redesign>

# Usability Redesign

---

## Where to Start:

Butterick's practical typography explains that when considering typography, it is imperative to understand the goal of the text, so the typeface can reinforce this goal. Similarly, when redesigning an interface, the first step is determining the purpose of that interface, so that the designer can complement that purpose. Only when that is complete can I start analyzing different styles and layouts.

## Goal:

Therefore, **I define the purpose of this website to be a place where Brown students can conveniently monitor their daily nutritional intake from the Brown diners.**

Now I can use this concrete goal to start scrutinizing the errors of the current interface, and propose a new one to complement the purpose of my redesign.

## Evaluating Current Website:

I interviewed five people and asked them to use and assess the current site. I suggested some heuristic evaluation techniques such as looking out for consistency, minimalist aesthetics, user freedom and control, and recognizable features. We then discussed what they thought of each of the site's usability criteria. The results I received are summarized as follows:

**Intuitive design:** As seen earlier, the design in its current state needs a page of text describing how to use it. By definition, that is not intuitive.

**Ease of learning:** Even after reading the text, users are confused on how to interact with the interface. This goes back to being unintuitive.

**Efficiency of use:** Experienced users are forced to repeat many steps before reaching their end goal.

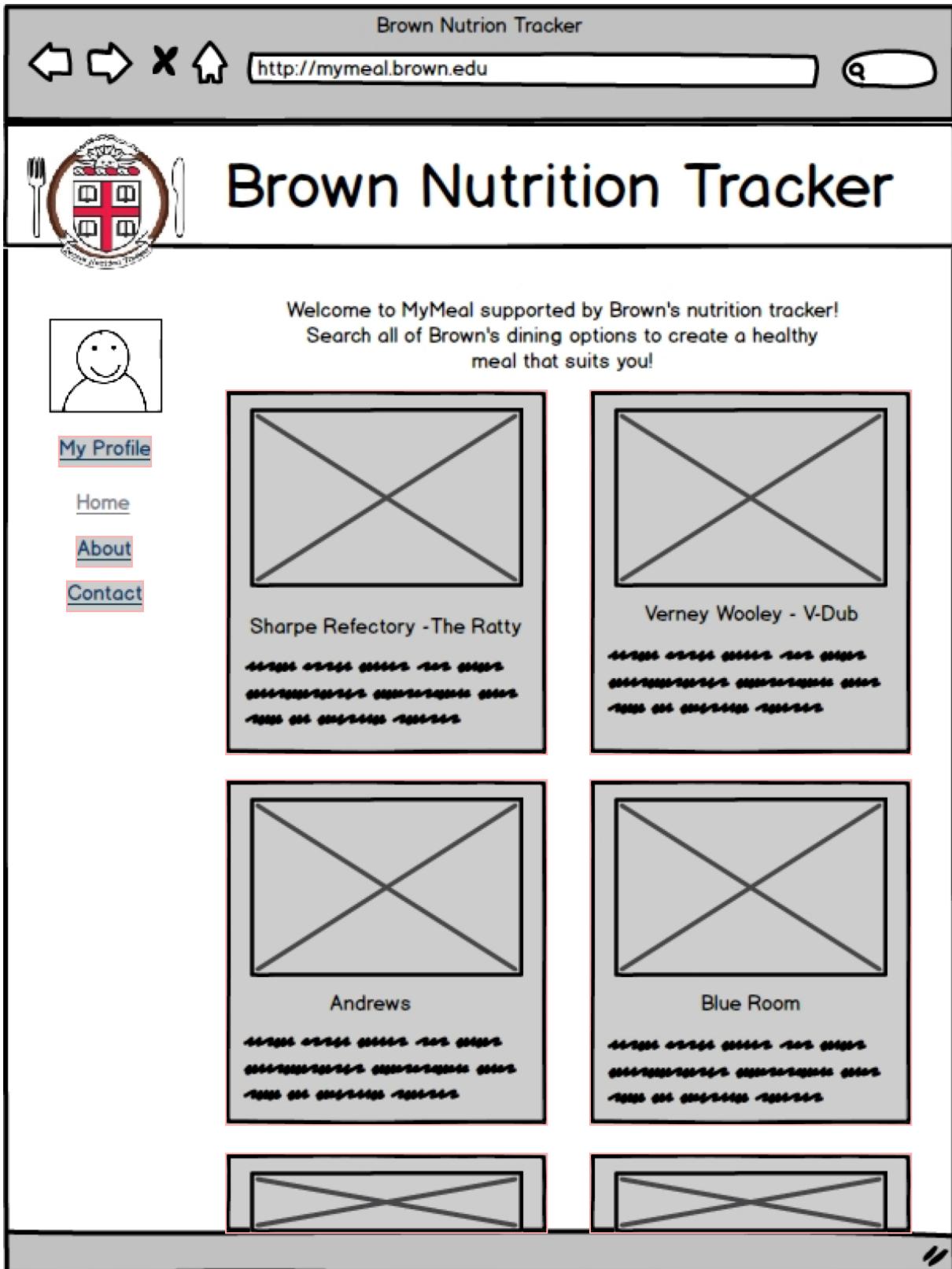
**Memorability:** after visiting the site, users are normally turned off because of how little they remember of how it functions. The purpose of the site is also not immediately memorable.

**Error frequency and severity:** No errors take place, but users click around the screen for a while, trying to test out the design of the site. Users were frequently perplexed by the “MyMeal” button, which seemed to do nothing.

**Subjective satisfaction:** Consensus agrees that the interface is not user-friendly in its current state.

## Wireframes:

Next, I asked the users to view my proposed wireframes presented on the following five pages [Fig 2-6] to see what they thought of my redesign.



Responsive Redesign | CS1300 UI/UX

[Fig 2 – Homepage mockup]

Brown Nutrion Tracker  
[http://mymeal.brown.edu/josiahs\\_diner](http://mymeal.brown.edu/josiahs_diner)



# Brown Nutrition Tracker




[My Profile](#)  
[Home](#)  
[About](#)  
[Contact](#)

**Today's Suggestion**  
Weekends at Jo's is the perfect time to get a healthy omlette bowl, providing high protein and low fat for a nutritious dinner!

**My Current Meal:**

Food	Calories	Protein	Carbs	Sugar
Spicy With Cheese	540	12g	24g	8g
French Fries	210	4g	16g	8g
Soda	180	1g	2g	12g

Filter food...

Most Popular    Low Calories    High Protein    Low Sugars

- Spicy With Cheese   1
- French Fries   1
- Mozzarella Sticks   0
- Caesar Salad <suggested for you>   0

[Fig 3 – Example Diner Page]

Brown Nutrion Tracker

<http://mymeal.brown.edu/myprofile>



# Brown Nutrition Tracker

## MY PROFILE

- [Home](#)
- [About](#)
- [Contact](#)



Zak Wegweiser  
zwegweis

**Meals**

Today: 3  
This Week: 8  
This Semester: 41

**Alergies/Dietary Restrictions:**

Automatically filter out foods containing

<input type="checkbox"/> Meat	<input type="checkbox"/> Fish	<input type="checkbox"/> Soy
<input checked="" type="checkbox"/> Gluten	<input checked="" type="checkbox"/> Shellfish	<input checked="" type="checkbox"/> Wheat
<input checked="" type="checkbox"/> Eggs	<input checked="" type="checkbox"/> Beans	<input checked="" type="checkbox"/> Nuts

**Today**

3 meals  
1400 Calories  
36g Protein  
50g Carbs  
22g Sugar

**My Meals This Month**

Sun	Mon	Tues	Weds	Thur	Fri	Sat
Rest	Chest Exercises And Triceps Ab Ripper X	Plyometrics	Back And Biceps Ab Ripper X	Yoga X	Legs And Back	Kenpo X
Rest	Chest Exercises And Triceps Ab Ripper H	Plyometrics	Back And Biceps Ab Ripper X	Yoga X	Legs And Back	Kenpo X
Rest	Chest Exercises And Triceps Ab Ripper X	Plyometrics	Back And Biceps Ab Ripper X	Yoga X	Legs And Back	Kenpo X
Rest	Yoga X	Core synergistics	Karate X	X Stretch	Core Synergistics	Yoga X

Diner	Food	Calories	Protein	Carbs	Sugar
The Ratty	Omlette	120	12g	4g	2g
	Caesar Salad	80	6g	2g	1g
Andrews	Poke Bowl	200	10g	8g	6g
	Apple	20	0g	1g	10g
Josiah's	Spicy With Cheese	540	12g	24g	8g
	FrenchFries	210	4g	16g	8g
	Soda	180	1g	2g	12g

[Fig 4 – My Profile mockup]

Brown Nutrition Tracker

<http://mymeal.brown.edu/about>

**Brown Nutrition Tracker**

**ABOUT US**

[My Profile](#)

[Home](#)

[About](#)

[Contact](#)

**Dr. Jeff Huang - Dietary Nutritionist**

Zak Wegweiser - UGrad Researcher

John O'Shea - Head Chef

**Our Mission**

**Core Values**

**Join Our Team**

Professional Employment

Student Research

[Fig 5 – About Us mockup]

The mockup shows a web browser window for the "Brown Nutrion Tracker" at the URL <http://mymeal.brown.edu/contact>. The page features a logo with a fork and knife on either side of a circular emblem containing a building and a cross. The main title is "Brown Nutrition Tracker". On the left, there's a sidebar with a user icon and links for "My Profile", "Home", "About", and "Contact". The main content area is titled "CONTACT" and contains a form titled "ASK A DIETITIAN". The form includes a "TITLE" input field, a text area for "I would like to know about...", and two buttons at the bottom: "Send" and "Send Anonymously".

Brown Nutrition Tracker

<http://mymeal.brown.edu/contact>



# Brown Nutrition Tracker

CONTACT

[My Profile](#)

[Home](#)

[About](#)

[Contact](#)

ASK A DIETITIAN

TITLE

I would like to know about...

Send  Send Anonymously

Using MyMeal with Cafe Bon Appetit

Cafe Bon Appetit is our online menu for all eateries on Brown University's campus. The descriptions given on Cafe Bon Appetit are restaurant style; they provide a description of the meal but not all details of ingredients. If you need to know all ingredients in a meal, MyMeal is where you will find that information.

Any other questions, concerns or feedback? Feel free to contact us at [mymeal@brown.edu](mailto:mymeal@brown.edu) or [401-MY-MEAL](#)

- Footer -

[Fig 6 – Contact mockup]

As a comparison, I asked the users to fill out a chart scoring the design from 1-5 (1 being the lowest score and 5 being the highest) from the categories we had discussed. The average results were as follows:

	Original Interface	Redesigned Interface
<b>Intuitive design</b>	1	5
<b>Ease of learning</b>	1	5
<b>Efficiency of use</b>	2	4
<b>Memorability</b>	2	5
<b>Error frequency and severity</b>	2	5
<b>Subjective satisfaction</b>	1	4

Although not perfect, there is a clear usability improvement from the original design. It seems that my minimalist design encourages a more intuitive interface. The navigation becomes a lot more transparent. Each page has a clear purpose that promotes the overall goal of the website. Even the rebranded logo helps define the purpose of the interface, making tasks more memorable.

# Visual Redesign

---

## How to execute the redesign:

Now that I have confirmed that my mockups do indeed increase the usability, I can take the next step of actually crafting the details of the website. First, I use my homepage mockup to organize all the elements on the screen. Then, I choose a temporary color scheme that fits Brown's core. While designing, I use the principles discussed in Vignelli's *intangibles*, which demonstrate the importance of being syntactically very disciplined in consistency of overall structure, typefaces, headlines, etc. Finally, I formulate a plan to tackle key components in my visual redesign.

## Plan:

Building off my mockup, I want to start with the logo because it is the first thing a user observes. The new logo embodies more of Brown's qualities and adds a nutritional vibe, making it clear that this interface is to help Brown students track their diet. Next, I remove the abundance of text from the current homepage and utilize more images and whitespace to help guide the user. The essential information displayed should be the dining halls (and all of them should be included). Thus, I move them from the sidebar to the center of the screen and add pictures that express the main features of each dining hall. This idea illustrates some of Vignelli's *tangibles*, which demonstrate the power of images and whitespace. Finally, on the current interface, there is a "MyMeal" button and an "Allergen Filter," but they do not actually do anything until a user has chosen their entire meal. It is frustrating for a user to press a button and get no feedback. It presents the false appearance of being personalized. That is why I removed that distraction and added a profile picture in the top left corner. This addition encompasses all of the user's information and helps keep track of previous meals all in one designated place. Once I make these significant changes and layout my design, I can focus on small tweaks to color and typography.

## Execution:

As seen below [Fig 7], I attempted to simplify the design of the website, removing all the cluttering text, focusing only on the essentials of the interface. I executed all of the proposed design changes including a new logo, less text, and an improved profile.

The screenshot displays the Brown Nutrition Tracker website with a clean, modern design. At the top, there is a header bar with the URL "mymeal.brown.edu". On the left side of the header is a circular logo featuring a fork, knife, and a crest with the text "Brown Nutrition Tracker". Below the header is a large, dark brown navigation bar containing the title "Brown Nutrition Tracker". To the right of the title is a search bar with the placeholder text "Search all of Brown's dining options to create a healthy meal that suits you!". On the far left, there is a sidebar with a user profile picture (a placeholder image of a person) and the text "MyMeal". Below the profile picture are three menu items: "Home", "About", and "Contact", each in a red font. The main content area is divided into four sections, each featuring a different meal option:

- Sharpe Refectory - "The Ratty"**: Shows a plate with eggs, potatoes, and a sausage patty. Below the image is a caption: "Lorem ipsum dolor sit amet, qui ex scaevola torquatos. Scripta facilis qui at, et eos dico quas ornatus, no petentium persequeris nec. Eum et erant interesset, domina daniana vel ex, non libris omnium veritus no nam. In placat intellegat qui, usu vidit ignota dolorem et, per cu vidit feugiat sensibus. Facete civibus repudiandae in mel. Wisi fuisset conclusionemque ne vim. Persequeris reformidans accommodare ut eum, animal eleifend qualisque has no, an sit verate voluptibus. Per aliquid sanctus, odio decore sed no."
- Verney-Woolley - "V-Dub"**: Shows a bowl of salad with black beans, corn, and avocado. Below the image is a caption: "Lorem ipsum dolor sit amet, qui ex scaevola torquatos. Scripta facilis qui at, et eos dico quas ornatus, no petentium persequeris nec. Eum et erant interesset, domina daniana vel ex, non libris omnium veritus no sonet sapientem no. Nostrud commune ea quo, reque possim tibique eu vis, at nec suas eiusmod guberren. Vim te exerci petentium guberren, deleniti constituam sit ea, movei quodsi no eum. Ad vim illum dicit lobortis, erre milius in nec, vis in erant melius. At sonet liberavisse nec, sint quodsi suscipit vim ei."
- The Blue Room**: Shows a group of muffins. Below the image is a caption: "Id pri questio intellegat, vix ex sonet persequeris philosophia. Sit congue numquam corpora id, ex summo utatur duo, mea id appellantur reformidans. Quot suavitate appellantur ex ius, pri porro civibus luptatum at. Has option diceret codicille ea, dicat aequo sit cu, ut laudem feugiat nec."
- Ivy Room**: Shows a bowl of salad with black beans, corn, and avocado. Below the image is a caption: "Lorem ipsum dolor sit amet, qui ex scaevola torquatos. Scripta facilis qui at, et eos dico quas ornatus, no petentium persequeris nec. Eum et erant interesset, doming denique vel ex, usu libris omnium veritus no. Cum in erat labitur, eum ridens philosophia ad."

At the bottom of the page, there is a footer bar with the text "Brown Nutrition Tracker — Created By Zak Wegweiser".

[Fig 7 – Visual Redesign top and bottom half]

# Making it Responsive

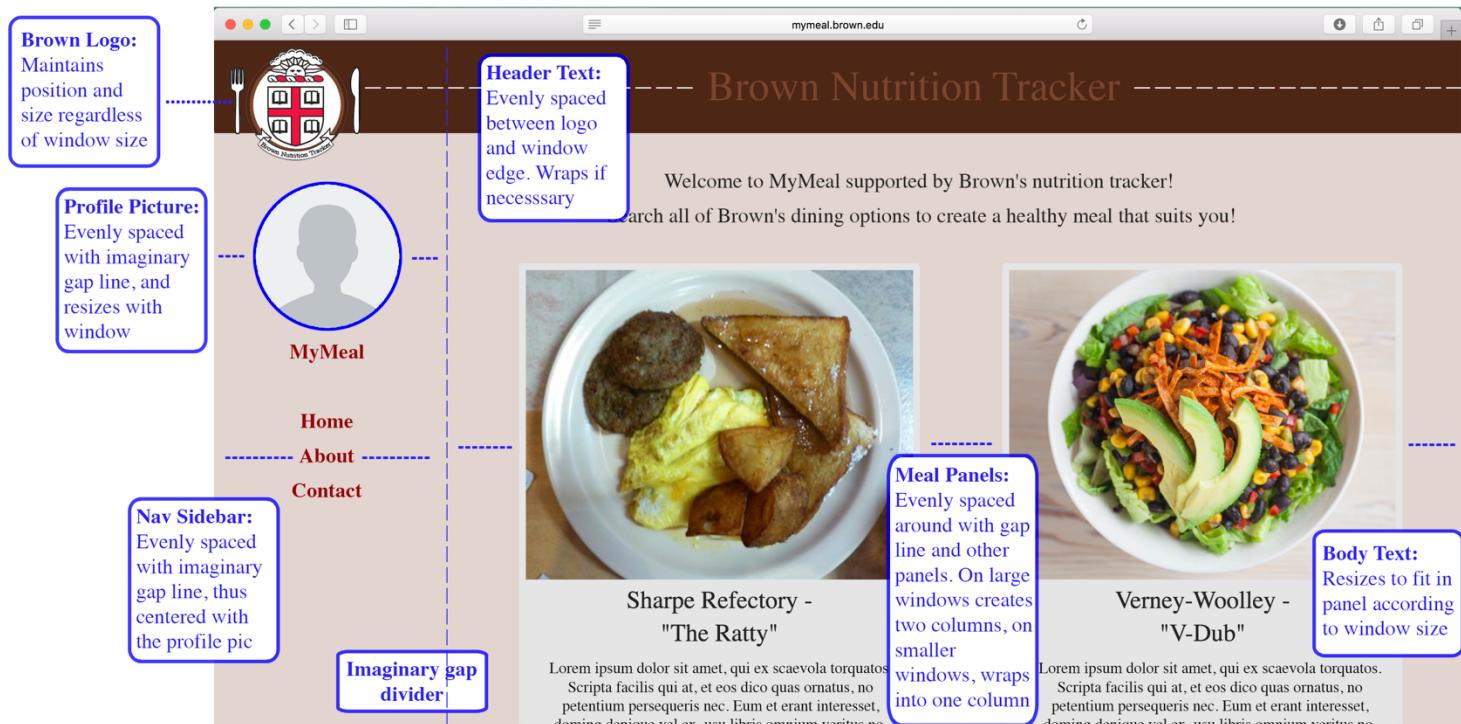
Nowadays, users can view interfaces on many different devices or screens, each with different sizes. Even on a desktop, different users resize their browsers and windows as they please. That is why it is crucial that an interface adapts to the user's screen size.

Below [Fig 8-11], I present annotated mockups of how the homepage of my redesign would respond to different interface sizes. Additionally, I use the power of CSS Grid and CSS Flexbox to implement this responsive design which can be viewed here:

<https://cs1300-responsive-redesign.herokuapp.com/index.html> (check out the

responsiveness by resizing the window or viewing the site on your phone!)

Brown Nutrition Website — Annotated mockup for large desktop window



[Fig 8 — Annotated mockup of website]

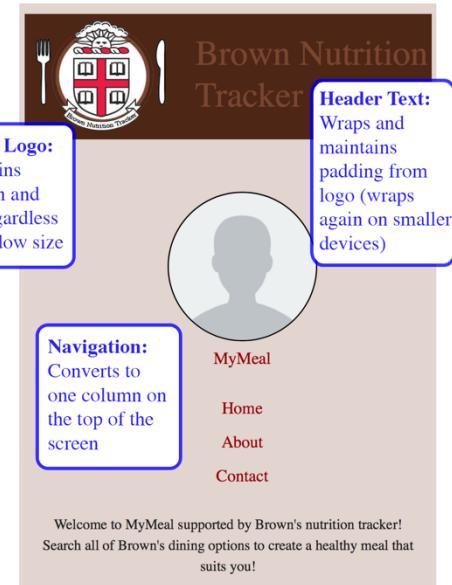
It is important to analyze what changes are made when responding to smaller devices. As the screen size shrinks, most of the text shrinks with it, except the header, which wraps before shrinking. Additionally, the size and position of the logo remain constant because no matter what screen this site is on, that is the first thing I want my users to see. The spacing ratio is also maintained so that every diner's panel is evenly displayed

even if it means shrinking images and wrapping text. If necessary, the screen layout folds into one column (as opposed to three), to adjust for smaller devices—such as smartphones. Take a look at how these changes would appear [Fig 9-11].

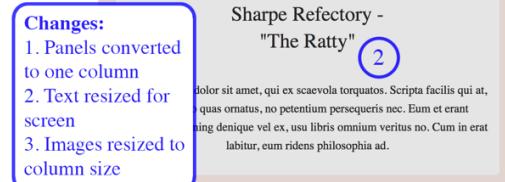
### Brown Nutrition Website — Annotated mockup for shrunken window or tablet



### Brown Nutrition Website — Annotated mockup for smartphone (1)



The annotations demonstrate how all the little details change depending on the device. Notice the change from the desktop version when shrinking the window size or viewing on a tablet is not very significant because a tablet can mostly resize everything to still fit well on screen. However, the change to a smartphone reshapes the layout into one column. This choice is due to how most people interact with their phones today. People are used to scrolling through content, which makes one column of content the perfect choice for a responsive redesign that still maintains a clear display. Placing the profile and navigation on top is the norm for most phone interfaces, which makes it a seamless transition for smartphone users.



### Brown Nutrition Website — Annotated mockup for smartphone (2)