WHAT’S GOOD
In College Park

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Abstract

Our idea is to make a comprehensive review site for restaurants and bars in College Park. Along with the usual restaurant data, pricing, special deals, and reviews, it will be the first site we've heard of to have ratings on individual items, allowing for people who are new to restaurants to choose the best thing on the menu. There will be menus with pricing information, and there will be a variety of search/sort options to help people doing such tasks as finding the cheapest burgers or the top-rated tacos in town. We may eventually make a Facebook app as well.

Credits

Avi: Coding the C# website logic and the aspx design, writing the report
Steve: Creating database and much of the associated SQL queries, writing the report
Antoni: Creating CSS “look and feel” of the website, writing the report
Ryan: Writing SQL queries, writing the report
Introduction

Currently, there are many websites dedicated to restaurant reviews, however they are severely lacking because it is impossible to search for items. Popular sites such as Zagat and Campusfood have a plethora of options to search for the restaurants themselves, yet it is incredibly difficult to perform a search for “best pizza” or “best milkshake” in the area. Our goal, therefore, was to provide a means to search for restaurants in order to maintain current expectations of restaurant sites (and improve where possible), while promoting the ability of searching for specific items. Given research found in journal articles such as “A Grounded Theory Approach to Understanding the Website Experiences of Restaurant Customers”, we believe that this criteria is substantial enough to warrant a new website in order to meet this user need.

Capitalizing upon the concept of maps was very important in creating a site that allows users to view restaurants, as seen in websites like dine.com. Therefore, we wanted to ensure that our site maintained a strong mapping system to make finding the restaurant as easy as possible for the user, requiring the least amount of short-term memory. Similarly, a strong review system was necessary to ensure that all of the information we wanted was correctly stored in our database. For example, we wanted to store overall ratings and reviews, but also more detailed information, such as atmosphere and food quality. Keeping in line with our vision of detailed information per-item rather than just per-restaurant, we also incorporated item reviews with food item ratings.

Realizing the importance of user-generated content for our reviews as seen in the Jack article in “Marketing Week,” we made sure that uploading reviews was as easy as possible for users. Reviews are always given in the context of the restaurant or food item being reviewed, with captions reminding the user what it is he or she is reviewing. The system is also flexible to multiple kinds of inputs, due to the use of descriptive rating images and the option to omit certain ratings. This allows users to be very specific or more vague, while still submitting valuable information in to our database. The power of user-generated content lies within the ability of the users to want to use the system and contribute lots of meaningful data, hence the importance of this aspect of our site.

Still, reviewers can be biased and are not always the most credible sources (as described in the Star Banner article “Out to Eat”) and therefore caution must be taken with these reviews. To that end, we needed to ensure that a large amount of data be submitted so that the effect of a biased review was diminished. Again, to keep the amount of data in our database high, usability of our site was crucial to encourage more data be submitted. The visual appeal of the website was also crucial. Websites such as restaurantratingz.com are popular due to their pleasant layout and color schemes, so we knew we needed a color scheme that would attract our user base. Considering that we are focusing on College Park users, a University of Maryland color scheme seemed appropriate, and given what we know based on the success of competitors and our research, this scheme should be effective. Again, the more usable and appealing our site is, the more accurate our data will be, which will attract even more users to the site. This cyclic effect will cause our site to benefit in many different areas, as is common with good design. A Journal
of Foodservice Business Research article emphasizes this, describing the importance of strong design to expand your user base and therefore ultimately get better data and a better website.

Recognizing successful competitors in the field is certainly important, but recognizing failed competitors is arguably just as important. Restaurant.com, for example, has a wide range of restaurants available in its database and is relatively pleasing to look at and interact with. However, it is less usable simply because of a lack of features that many others have. With this in mind, we try to ensure that our functionality is comparable to that of other top sites so that the functionality does not interfere with usability of our site.

An additional key feature of successful sites worth noting is the simplicity of interface, such as yelp.com. Many users find yelp to be very easy to interact with because it is intuitive, and therefore simple to use. Using modal dialogues throughout our website help to ensure this aspect, such as defining what type of review a user is performing (restaurant or food item, and the name of the restaurant or food item being reviewed). Additionally, we speak in a language our users understand. For example, we describe the feel of a restaurant as the restaurant’s “atmosphere,” which is a generally understood concept describing the feel of any establishment. Simplicity, therefore, was designed throughout our system.

Finally, the actual language used in our site was crucial in maintaining a strong user base. A study described in the International Journal of Hospitality Management explains that by varying the language used on a restaurant’s web site, users will take away very different things. While we cannot account for the actual words used by our reviewers (the nature of free-speech, the user generated content), we can do our best not to lead our users, so as to keep them as unbiased as possible. By maintaining bias-free instructions, we should be able to keep the language they submit in their reviews focused, thereby increasing the effectiveness of our website. Additionally, we can monitor the reviews for clearly biased information, such as that likely submitted by owners of the restaurant itself or owners of competing restaurants.
## Development Process

### Low-Fidelity Prototype

**What's Good In College Park?!**

<table>
<thead>
<tr>
<th>Restaurant Name</th>
<th>Type</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alario's Italian Pizzeria</td>
<td>Pizza</td>
<td></td>
</tr>
<tr>
<td>Burger King</td>
<td>Burgers</td>
<td></td>
</tr>
<tr>
<td>California Tortilla</td>
<td>Tex-Mex</td>
<td></td>
</tr>
<tr>
<td>De Lin's China</td>
<td>Chinese</td>
<td></td>
</tr>
<tr>
<td>Five Guys</td>
<td>Burgers</td>
<td></td>
</tr>
<tr>
<td>Golden China</td>
<td>Chinese</td>
<td></td>
</tr>
<tr>
<td>Hanami Japanese Restaurant</td>
<td>Japanese</td>
<td></td>
</tr>
<tr>
<td>Mamma Lucia Pizza &amp; Pasta</td>
<td>Italian</td>
<td></td>
</tr>
<tr>
<td>Moe's Southwest Grill</td>
<td>Tex-Mex</td>
<td></td>
</tr>
<tr>
<td>Papa John's Pizza</td>
<td>Pizza</td>
<td></td>
</tr>
<tr>
<td>Red Lobster</td>
<td>Seafood</td>
<td></td>
</tr>
<tr>
<td>The Thirsty Turtle</td>
<td>Bar</td>
<td></td>
</tr>
<tr>
<td>Urban Bar-B-Que Company</td>
<td>BBQ</td>
<td></td>
</tr>
</tbody>
</table>

**Delivery Hours:**
- Mon-Fri: 11AM - 9PM
- Sat-Sun: 12PM - 8PM
What's Good In College Park?!

Name Of The Restaurant

Type: Restaurant Type
Location: 1234 Street Name
City Name, MD 12345
Rating: ★★★☆☆ less
Food: ★★★★★
Value: ★★★★
Service: ★★★
Atmosphere: ★★★★★

Reviews:

By: User123  Title: A Review  Rating: ★★★★★  Review: This is a review of a restaurant. Read more...

By: User234  Title: A Review  Rating: ★★★★★  Food: ★★★★★ Value: ★★★★ Service: ★★★★ Atmosphere: ★★★★★
Review: This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. This is a review of a restaurant. Read less

By: User345  Title: A Review  Rating: ★★★★★  Review: This is a review of a restaurant. This r...
Read more...

By: User456  Title: A Review  Rating: ★★★★
Review: This is a review of a restaurant. This r...
Read more...

By: User567  Title: A Review  Rating: ★★★★★  Review: This is a review of a restaurant. This r...
Read more...

By: User678  Title: A Review  Rating: ★★★★★  Review: This is a review of a restaurant. This r...
Read more...
High-Fidelity Development Process

We have decided to stick closely to our second design shown above with few slight revisions. The major components of the main site were laid out similar to the prototype. The login and registration form stayed at the top right corner and the search box at top-center of the page. The title of the site was moved to the top right corner. The major change was in the search results table. There was a tab added to switch between restaurant results and food item results of the search. The request for restaurant form was removed from the prototype as it was not necessary for the purposes of usability testing. It is not a major functional component of the site. The restaurant page underwent more revisions. The page title, login form and search box were placed exactly the same as on the main page for consistency. The idea of having a picture of the restaurant was deemed unnecessary and discarded. The detailed information about the review ratings were made visible at all times instead of the collapsible version. The links to coupon and menu pages were replaced with tabs with addition of the review tab. This provides a nice flow and consistency between a main page and the restaurant page. This way all the information about the particular restaurant are kept within one page. The idea of having a functional map in the prototype for the purpose of usability testing was not a good one, therefore it was put off for the later stages of development, similar applies to requests for menu items. Send an email, we will add.
High-fidelity Prototype

WHAT'S GOOD!?

Search for Restaurant Name, Restaurant Type, or Food Items

sushi  Search

☐ Delivery  ☐ Delivery Now
☐ Open Now

Results for: sushi + open now

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Price</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanami</td>
<td>Sushi</td>
<td>$10</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Yami Yami</td>
<td>Sushi</td>
<td>$8</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Ninja Sushi</td>
<td>Sushi</td>
<td>$8</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Samurai Sushi</td>
<td>Sushi</td>
<td>$7</td>
<td>★★★★★★</td>
</tr>
</tbody>
</table>

The Thirsty Turtle

Alcohol is served here

Type: Bar

Hours: Mon.- Sat: 3:00pm - 3:00am
Sun: 12:00pm - 12:00am

Location: 6004 Rt. 1

Overall rating: ★★★★★
Costcustomer: $4  Food: ★★★★★★  Service: ★★★★★★  Atmosphere: ★★★★★★

Review:
Review text goes here.

Username: User1  Overall rating: ★★★★★
Costcustomer: $9.50  Food: ★★★★★★  Service: ★★★★★★  Atmosphere: ★★★★★★
Review:
Review text goes here.

Username: User2  Overall rating: ★★★★★
Costcustomer: $11.00  Food: ★★★★★★  Service: ★★★★★★  Atmosphere: ★★★★★★
Review:
Review text goes here.

Review Title: 
Overall Rating: ★★★★★
Costcustomer: $1  Food: ★★★★★★
Service: ★★★★★★
Atmosphere: ★★★★★★
Review:

Submit Review
Usability Testing Process

We have tested our high-fidelity prototype on a group of University of Maryland students. The sample is a good representative of the majority of the site users, as the service is geared toward the College Park area with a significant college student population. We got the testers to perform the common tasks using the main functional components of the website while play roles of different kinds of college students in different situations and scenarios. The usability tests provided some essential feedback on what was good about the site and what could be improved. The results were quite consistent. Forms and results below.
Pre-test Form

Age: _____

Gender: M   F

UMCP Student: Yes   No

Currently Living: On Campus   Near Campus   Far From Campus

Usual Transportation: Car   Bus   Walk

Home Internet Access: Yes   No

I go out for food:
Never   Once a week   Few times a week   Everyday

I go out to bars:
Never   Once a week   Few times a week   Everyday

I get food delivered to me:
Never   Once a week   Few times a week   Everyday

My biggest concern when buying food is:
Price   Amount of Food   Taste
# Post-Test Form

<table>
<thead>
<tr>
<th>Easy</th>
<th>Difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding the desired restaurants was:</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fast</th>
<th>Slow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding the desired restaurants was:</td>
<td>1</td>
</tr>
</tbody>
</table>

Was any part of the website significantly confusing?

Is there anything that you wish you could have done on the website but couldn’t?

Any additional comments:
Task List

Freshman Scenario
You have just started college and live in the dorms, have no car, are hungry, and the diner is closed.

- Use our website to find a restaurant that delivers the most quickly.
- Find all the items in a meal you would want so that you know what to order.
- Figure out a way to place an order.
- Since you ordered something in such a rush, you didn't have time to thoroughly examine ratings of items, etc. You ended up hating what you ordered. Submit a review about the poor quality of the item.
- Further, because you hated the item, you in turn hated the restaurant. Submit a poor review of the restaurant.

Questions for this scenario:

1. Do users log in to submit reviews? (for either the restaurant or the item)
2. Are they able to find the restaurant quickly? Find the items they wanted to order quickly? Find a way to order quickly?
3. Did they find the phone number, or did they try the link to campusfood.com?
4. Could they easily perform both types of reviews?
5. If they do not log in, is it because they could not find or understand the concept of logging in, or did they simply prefer to be anonymous in their post?

1. Sushi Lover Scenario
You love sushi, especially if it is high quality. You want to find discounts at the top rated sushi restaurant in the area.

- Find all sushi bars.
- You notice your favorite sushi bar, Super Sushi, isn't even listed! Submit a request to add it.
- Using the top rated sushi bar that was listed, find all the current discounts.
- Examine the menu for this sushi bar.
- Having been to this restaurant before, you know the menu is missing your favorite item - the spicy California roll. Submit a request to add it.

Questions for this scenario:

- Can the user easily find all the sushi bars?
- Can the user quickly find the top rated sushi bar?
- Can the user easily figure out how to add a request for a new restaurant?
- What information do they input about the restaurant? We intentionally do not give them any pre-filled information because that leads them to believe they need to fill in all the information.
- Can they easily figure out how to add requests for a menu item?
2. **Hungry Pizza Lover Scenario**

You are a hungry college student starving for some pizza, however you aren't willing to eat just any pizza - only the best. You want to find the address for the best rated pizza joint in college park.

1. Visit our website.
2. Locate the highest rated pizza joint (if more than one exists, select one that comes in first alphabetically)

   [Using the information provided on the site you go out for a pizza or order delivery. The pizza did not live up to all the hype and did not meet your expectations. In fact you are so disappointed with it, that you decide to share your experiences.]
3. Create a user account if you already do not have one.
4. Log in.
5. Write a review for the over hyped pizza joint.

3. **Save Your Favorite Restaurant Scenario**

Your favorite restaurant in College Park is not getting much business at all, and is bound to shut down soon if the business doesn't pick up. You want to save the restaurant from going bankrupt, so you do all you can to encourage people to attend.

1. Create a user account if you already do not have one.
2. Log in.
3. Locate your favorite restaurant's page on our website.
   --- If the profile does not exist submit a request for your favorite restaurant
   [Profile appears after the request has been processed.]
4. Write a review to encourage people to check the restaurant out.
5. Locate the menu.
6. Write a review for your favorite dishes.
   --- If some dish is not included on our menu, submit a request for menu change
   [Dish appears after the request is processed, you may now complete step 6]
7. Logout.

4. **Partying At The Bar Scenario**

You've just completed a week of hard work studying for your midterms, the last of which you just took yesterday. Having done a whole week's work in just one week, you are very tired of working and want to party badly. You gather up some friends, who are in the same situation, and decide to get unintelligibly drunk. But there's one problem: you don't want to spend a lot of money.

1. Find the cheapest bar on Knox Road: _________________
2. Find the cheapest alcohol there (by unit price, not per weight of alcohol): _________________
3. Find the specials for tonight: _________________
4. Find out where it is (how do you find it, not the address)

   [The browser will close and reopen]

You have just woken up the next morning and want to rate the bar.
5. Find the bar
6. Give ratings for all categories

Questions:
- Are they right?
- See if they search for the bar name on part 4 or do it the same way as they did at first?
- Are they confused by the ratings widget?
- Can they tell by the ratings widget what they rated it?

---

5. Lonely Scenario

You are feeling lonely and want to go to a bar tonight to find someone to "share your feelings" with.

1. Find the best bar for such a task
2. Get driving directions from your house

You had a great time, because you finally let all your feelings out.

3. Find the bar
4. Write a shining review of the bar.

Questions
- What criteria did they use (hopefully Popularity and Atmosphere)? Why?
- Were they able to use the external site's direction functions? Did they just copy the address into Mapquest, or use the link?
- Do they get the "creepiness" reverse-star widget?
- See if they search for the bar name on part 3 or do it the same way as they did at first
User Experiences

We used the tasks from the Task List/Questionnaire.

User 1
The subject is a 21 year old, female, College Park student, who lives near campus and travels by car, goes out to eat frequently

This subject was able to complete the majority of the tasks, with the exception of a few problem areas. The first issue that she ran into was regarding delivery speed. When asked to find the restaurant that would deliver to her the quickest, she was unsure how to find this information. Her initial instinct was to just try checking reviews for random restaurants, and see if any of them mentioned delivery speed. When this failed, she began looking through the restaurant information and search options, but could not find anything related to the speed of the delivery. She ultimately gave up with this task and could not complete it.

Another area where this subject had problems was with ordering food. When given the task of ordering from a particular restaurant, she could not locate any option to do so on the page. She then went back and checked a different restaurant that she knew allowed online orders. Here, she found the Order button, which linked her out to the campusfood.com website. Even when she found this option, she thought that it was hard to find on the page.

The last task that this subject had a problem with was requesting a new restaurant. When looking at the main page, this option was off of the bottom of the page. So when she was asked to perform this task, she was confused as to how it could be done. She gave up on finding this option on her own, and had to ask for assistance in order to complete this task.

User 2
The subject is a 20 year old, male, College Park student, who lives near campus and travels by bus, goes out to bars and restaurants frequently

This subject completed almost all of the tasks, but ran into a number of problems along the way. First, while working on the fastest delivery task, he wasn’t quite sure whether the Delivery option or the Delivery Now option should be checked. He told me that he thought these options were a little unclear.

He also had trouble with the searching tasks. When asked to search for his favorite restaurant, he tried a number of keywords that were not understood by our search, including common foods like “burger” and “wings”. Eventually, he was unsure of how to search. He suggested to me that if common foods like this are not going to be searchable, then we should just provide discrete options for the user to select from.

During the tasks regarding restaurant location, this subject found the location information to be relatively out of the way. He thought this information was very important, and should be easier to find on the page.
This subject brought up an additional observation of the entire site after his tasks. He felt like because of the terminology, he had to make a lot of guesses as to where information and options could be found. For example, when looking for discounts, he had to guess that they would be listed under Specials.

I also noticed that during the first couple of tasks, he paid no attention to the Login options. Only when he was asked specifically to register and log in did he even notice those options existed.

**User 3**

The subject is a 21 year old, computer and restaurant-site savvy, male College Park student. He lives near campus, tends to travel by bus, eats out on a weekly basis and frequents bars on a monthly basis.

The subject generally had an easy time of performing tasks on the site, yet had several problems as well. Most of the tasks seemed very straightforward for him and were easy to perform, such as writing reviews, performing searches, logging in, finding restaurant menu or location information, placing orders, and adding restaurants. However, some features seemed confusing, such as the "delivery now" option (could not tell how this differed from open now + delivery). Further, the login feature seemed unnecessary and he could not understand why anyone would ever need to log in. He also felt compelled to place a rating for each feature without an "N/A" option and was confused by this - he did not want to rate "Atmosphere" when he ordered delivery, or to rate "Food" when he only ordered drinks at a bar.

Many of the searches that required finding highest overall rated seemed straightforward to him, yet searches that entailed ranking by any other aspect were not so straightforward (e.g. searching for fastest delivery, best "lonely" bar, etc.) so he resorted to finding all restaurants of the category, clicking on their restaurant page, and memorizing which had the highest of a certain rating. He felt that while this was doable for a small number of results, it was not as easy as it should have been.

The subject also wished we had the maps integrated in to our site so he did not have to travel away, and wished there was a "back to results" link inside of a restaurant page so he could return to his search results.

**User 4**

The subject is a 22 year old female, moderately computer and review site savvy, College Park student.

The subject had trouble with the search box and did not use the delivery checkboxes for delivery. As the results came up, she did not pick the highest rated place. She also did not notice the login form, and after being pointed out thought it was unnecessary. While requesting for a restaurant that was not listed on the main page, the user did not enter any relevant information into the location info form.

On the restaurant page, the user did not notice the reviews immediately as the menu tab was up by default and the review tab was hidden underneath. The subject tried to click on particular menu items to order them, and then tried to perform the same task by clicking the "request menu
update" button without reading the label for the functionality of the button. The user liked the fact that the location of the restaurant was there and noted that she would be able to walk there, because she knew where it was. She also added that she would visit the place again if she liked it.

**User 5**
The subject is a 19 year old female, moderately computer, and very restaurant review savvy.
The user was confused by the interface at first. She did not notice the login box or think it was necessary after being notified. On the freshman delivery scenario typed in 'burger' in the search box, because she did not realize you could search with no text and just mark the delivery check box for all restaurants that delivered. The user sometimes pressed “Enter” for the search box and sometimes clicked. After the results have popped up, the user did not click on the “Price” column in order to sort the items by price for the cheapest dining. For the most popular bar scenario, the user chose a bar because she knew it was popular and did not pay attention to the actual ratings of all individual bars. She didn't enter anything relevant in location info for the restaurant request.

While on the restaurant page, the user tried to click on item name to order it and went to mapquest to find directions to the restaurant. The user repeated the original search to get back to a restaurant the second time.

**User 6**
The subject is a 21 year old male, computer savvy and review site savvy.
The user played with the search bar to discover its weaknesses and lack of full functionality that was missing from the high-fidelity prototype. The user discovered the functionality of an empty search to search for all items in the database. He didn't notice login box or think it was necessary after being notified. The user also did not notice the restaurant request button at the bottom of the main page. For the sushi scenario, he tried to look at all individual pages of all the sushi places to compare them, and did not just use the overall rating. In order to return to a previously visited site, the subject typed in the name of the restaurant rather than repeating original search. The user used the order by price feature by clicking on the price column in order to find the cheapest restaurant. He didn't enter anything relevant in location info for the restaurant request.

While on the restaurant site, the user did not notice the clickable ratings widget, but did notice the discrepancies in data between all individual ratings and the overall ratings. The subject thought the discounts would be placed directly on the menu. The user did not think it was necessary to click all the individual ratings while writing a review, since not all ratings may apply to all attended places.

**User 7**
The subject is a 21 year old female, moderately computer and review site savvy.
The user was tested with directory on the main page instead of blank main page, so she never used the search box. The user did not click on the price column to sort items by price instead
compared prices manually. She didn't enter anything relevant in location info for the restaurant request.

The subject did not realize that she could write her own food reviews. Once shown how to do so, she did not click on the individual ratings on the review form. The user couldn't find the order button, and thought it would be placed in the menu tab. For the loner scenario, the user used atmosphere as characteristic for finding a bar to find a mate.

**User 8**

The subject is a 20 year old male, computer and review site savvy.

The user was very confused by the interface in the beginning. Searched term “Italian” along with the delivery box checked for the delivery scenario. He tried to log in to find his history, thought there would be a "recently used" marker next to the restaurants he had recently used. When requesting a restaurant to be added to the database, the user didn't enter anything in location info form.

The user used all the ratings when writing reviews for the restaurant, but didn't notice the option to review individual menu items because the form expanded below the scope of his window. When reviewing, did not think that review text was necessary, and the individual ratings were enough. When asked to review a dish, the user proceeded to write the review for the restaurant. The user was confused by no mechanism to save the review after it was written.

The user looked and compared several characteristics and ratings of bars in order to find the best alcohol in town.
Key comments

Site is not dynamic, with missing auto updates
Site is not visually appealing
Map for the restaurant location would be very useful
The search dialogue and options needs to be more intuitive
Steve is a sexy pants
The ratings not always apply to the diner's/drinker's experience and the user is forced to rate all aspects of the restaurant/bar
Cannot sort results by all available criteria
<table>
<thead>
<tr>
<th>Problem</th>
<th>Frequency</th>
<th>Priority (low 1 - 5 high)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot search from restaurant page</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Didn't realize you can review food</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Non-dynamic (no auto update)</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Search dialogue vague</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Missing menu item reviews</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Forced to rate by all individual ratings (no N/A)</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>No back to results page from restaurant page</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Poor sorting options</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Missing map</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Couldn't find order button</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Couldn't find location</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Unnecessary login</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

All of the items listed in the key comments and the problem list, of both high and low priority were taken into consideration when creating the final prototype of the site. We focused on the most common problems that the users have experienced, like lack of dynamics and lack of visual appeal, as well as less important details like map in order to make for the best user experience. We also cleaned up the site, leaving the items that users liked the most, and removed the items that were confusing and/or unnecessary.
Design

Our design philosophy was to provide the user with the necessary tools, remaining simple while also being visually pleasing. We used minimalistic controls in order to give the user a clear view of what was happening. In order to give the site a more “homey” feel, we used the UMD school colors. We felt that it would endear the users to us and make them feel more comfortable.
Home Page

The first thing the user is presented with is a search box with definitive instructions on what to search for, with two checkboxes below. The results are empty – we should have put something saying “No results” instead of leaving it blank. The food tab is also empty, so it shouldn’t be accessible. We did not implement these features.

[picture on next page]
Restaurant Results

The results consist of all restaurants that have a similar name or a similar type to what was searched for, sorted by rating. The height of each row is 3 lines because there are usually not a large number of results and it avoids a cramped look for the hours. The columns are name, type, average price per meal, and overall rating. The most important data are name and rating, so we put them on the edges so they are better distinguished. The name links to the restaurant page; we thought this was more obvious to the user than having a separate link.

The hours are included under the name rather than in their own column because they wouldn’t have fit in their own column. We would have liked to have them in their own separate row underneath the restaurant row, with their own column set (the columns wouldn’t have headers) in order to make visually scanning the data easier. We did not implement this.

The results are sortable by all columns.
**Food Results**

Like the restaurant results, the results here are all foods that have a similar name or type to what was searched for, sorted by rating. The height here is only one line because of the number of results that are expected, but this causes problems with staying on the same line. We should have used alternating backgrounds to fix this. We thought both the food name and restaurant name were important, but since the restaurant is sort of a heading, we decided to put it first.

The restaurant name links to the restaurant, but we should have also made the food link take the user to the restaurant with reviews for that item shown, so the user could more easily investigate the item.

Again, the results are sortable by all columns.
<table>
<thead>
<tr>
<th>Price</th>
<th>Food Name</th>
<th>Restaurant Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10.99</td>
<td>Individual Meals</td>
<td>Dragon House</td>
</tr>
<tr>
<td>$9.99</td>
<td>Combo Meal with Soft Drink</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$10.99</td>
<td>Sushi Rolls with Chicken Teriyaki</td>
<td>Dragon House</td>
</tr>
<tr>
<td>$8.95</td>
<td>Fried Sesame Shrimp, Side Orders</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$7.55</td>
<td>Fried Rice</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$7.15</td>
<td>Combination Plate</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$7.15</td>
<td>Combination Plate</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$7.15</td>
<td>Combination Plate</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$11.99</td>
<td>Chicken Wings</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$9.99</td>
<td>Chicken Wings</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$9.99</td>
<td>Chicken Wings</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$8.95</td>
<td>Chicken Specialties</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$12.99</td>
<td>Food Chinese Sushi</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$10.99</td>
<td>Chicken Grouse &amp; Chinese Sushi</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$15.99</td>
<td>Dumplings</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$13.99</td>
<td>Dumplings</td>
<td>General Chinese Cuisines</td>
</tr>
<tr>
<td>$12.99</td>
<td>Hamburger, Green Peppers, Mushrooms in Mushroom Sauce</td>
<td>General Chinese Cuisines</td>
</tr>
</tbody>
</table>

Search for Restaurant Name, Restaurant Type, or Food Items.
Restaurant Page

The main pane of the restaurant page displays basic restaurant info, such as name, description, hours, location, a URL to order food, average cost/customer, and average ratings. We used two columns to better fit the screen space.
**Menu Tab**

The menu shows up in the same order as the restaurants menu. Since it is not a user search, we felt it was good to do this instead of sorting by rating. Each heading starts out closed, but one heading can be opened at a time by clicking it, which solves the problem of displaying large menus on the screen.

Only the most relevant information about each item is shown – name, price, and average rating. There is also a link to read or write reviews for the item, which appear on the bottom of the page (second picture).

Though the rows are cramped, we didn’t think this would affect the user’s ability to scan horizontally because the data are so close.
<table>
<thead>
<tr>
<th>Drink</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iced Coffee</td>
<td>$2.8</td>
</tr>
<tr>
<td>Tea</td>
<td>$2.6</td>
</tr>
<tr>
<td>Hot Coffee</td>
<td>$2.6</td>
</tr>
<tr>
<td>Hot Chocolate</td>
<td>$2.8</td>
</tr>
<tr>
<td>Lemonade</td>
<td>$2.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sandwich</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>$2.4</td>
</tr>
<tr>
<td>Veggie</td>
<td>$2.4</td>
</tr>
<tr>
<td>Mushroom</td>
<td>$2.4</td>
</tr>
<tr>
<td>Chicken</td>
<td>$2.4</td>
</tr>
<tr>
<td>Ham</td>
<td>$2.4</td>
</tr>
<tr>
<td>Egg</td>
<td>$2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Salad</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>side salad</td>
<td>$2.0</td>
</tr>
<tr>
<td>Caesar</td>
<td>$2.0</td>
</tr>
<tr>
<td>Oriental</td>
<td>$2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entree</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken Fried</td>
<td>$6.8</td>
</tr>
<tr>
<td>Beef</td>
<td>$8.6</td>
</tr>
<tr>
<td>Pork</td>
<td>$8.6</td>
</tr>
<tr>
<td>Shrimp</td>
<td>$8.6</td>
</tr>
<tr>
<td>Fish</td>
<td>$8.6</td>
</tr>
<tr>
<td>Steamed Rice</td>
<td>$6.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drink</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iced Tea</td>
<td>$2.6</td>
</tr>
<tr>
<td>Lemonade</td>
<td>$2.6</td>
</tr>
<tr>
<td>Hot Chocolate</td>
<td>$2.8</td>
</tr>
<tr>
<td>Tea</td>
<td>$2.6</td>
</tr>
<tr>
<td>Coffee</td>
<td>$2.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Salad</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side Salad</td>
<td>$2.0</td>
</tr>
<tr>
<td>Caesar Salad</td>
<td>$2.0</td>
</tr>
<tr>
<td>Oriental Salad</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entree</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>$6.8</td>
</tr>
<tr>
<td>Beef</td>
<td>$8.6</td>
</tr>
<tr>
<td>Pork</td>
<td>$8.6</td>
</tr>
<tr>
<td>Shrimp</td>
<td>$8.6</td>
</tr>
<tr>
<td>Fish</td>
<td>$8.6</td>
</tr>
<tr>
<td>Steamed Rice</td>
<td>$6.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drink</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iced Tea</td>
<td>$2.6</td>
</tr>
<tr>
<td>Lemonade</td>
<td>$2.6</td>
</tr>
<tr>
<td>Hot Chocolate</td>
<td>$2.8</td>
</tr>
<tr>
<td>Tea</td>
<td>$2.6</td>
</tr>
<tr>
<td>Coffee</td>
<td>$2.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Salad</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side Salad</td>
<td>$2.0</td>
</tr>
<tr>
<td>Caesar Salad</td>
<td>2.0</td>
</tr>
<tr>
<td>Oriental Salad</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entree</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>$6.8</td>
</tr>
<tr>
<td>Beef</td>
<td>$8.6</td>
</tr>
<tr>
<td>Pork</td>
<td>$8.6</td>
</tr>
<tr>
<td>Shrimp</td>
<td>$8.6</td>
</tr>
<tr>
<td>Fish</td>
<td>$8.6</td>
</tr>
<tr>
<td>Steamed Rice</td>
<td>$6.6</td>
</tr>
</tbody>
</table>
Reviews Tab

This tab is used to display and write reviews for the restaurant.

For reading reviews, the ratings are displayed first in columns, allowing for vertical scanning between reviews. Then the review text is shown on the next line. A good amount of space is allowed between the reviews in order to differentiate them.

For submitting reviews, we had it always visible and used the heading “Your Review” instead of waiting for the user to click somewhere for it to appear. We wanted to reduce the effort in finding the review submission controls. The user can choose not to rate a restaurant on certain characteristics by clicking the N/A checkbox next to the rating widget. We felt that it is on the same row as the characteristic and the well-known “N/A” terminology would make it easy for the user to guess the purpose of that checkbox.
Maps Tab

This tab allows the user to search for directions from Google Maps. It starts out on the address of the restaurant. The interface comes from Google and is immutable.
Go to Guernsey Rd, Berwyn Heights. MD 20740

1. Turn right at Guernsey Rd
2. Take the 2nd left onto Dalemore Ave
3. Head east on Knox Rd toward Spring Pl
4. Take the 2nd right onto College Park Rd, MD 20740

Map data ©2020 Google
Conclusion

Our website currently incorporates the baseline for all of our intended features. One of the main goals of our website was to be comparable to all of the other successful restaurant review sites, in order to gain user acceptance. To fulfill this requirement, we have implemented some of the standard features of these websites, like a search bar, 5-star ratings, user reviews, and restaurant profiles with maps. We also managed to get an overall look and feel that stacks up to our competitors.

Another main goal of ours was to add features related to specific food items. Currently, we have a basic set of features implemented, which includes searching for food items, a food menu in the restaurant profile, and the ability for users to review and rate specific food items.

With all of this combined, we have a functional and aesthetically pleasing website that meets our expectations of matching up with other restaurant review sites while adding new food item features. Our primary users, College Park students, would be able to effectively use this site to find restaurants and meals in the area based on their specific needs.

There are, however, a number of ways that the website could be improved for future versions. First, due to the lack of intensive user testing on our final implementation, there could still be errors and bugs that we were not able to come across. Problems like this could severely hurt the credibility of our website, so more user testing should be the next step in development of this website in order to prevent this. Another thing that user tests provide is feedback on features and interface problems. While we used prototypes to refine our original design to what it is now, there is still room for improvement with many parts of the website in making it more usable.

There are also a large number of more enhanced features that could be added to the website in order to make it better. This could include a more powerful search, allowing users to more effectively find items. There could also be things like featured restaurant of the day, most popular lists, etc.

Our recommendation to future developers of this idea is to explore different ways of organizing and presenting the vast amount of restaurant and food information to the user. For our solution, we used restaurant profiles with menu items listed, which is a very straight-forward representation. But there is likely a lot of room for improvement on this, as it can be difficult for some users to get the information they want to find. Different searching and browsing mechanisms would be a good area to look into for improving on our idea.
Acknowledgements

We would like to thank all the people that performed our usability studies, Megan for the feedback on our website throughout the semester, Professor Bederson for the information on which to base our usability heuristics and each other for the countless all-nighters we spent together in the trenches implementing the site.

Works Cited


A website that provides user-created restaurant reviews for all over the country. The reviewing system is something that we would like to mimic for our website. It also includes other features that could potential be used for our website like maps and a list of the top reviewers.


A website that provides user-created restaurant reviews for all over the country. The reviewing system is something that we would like to mimic for our website. It also includes other features that could potential be used for our website like maps and a list of the top reviewers.


This article is about a new website that is promising to pay review writers a share of the revenue. It discusses the influence of user-created reviews and how they can be best utilized.

This study attempts to understand the experience of restaurant website users. It determines rules to be followed when making a restaurant website.


This article discusses the ethical issues involved with restaurant reviewing, like biased opinions and the credibility of the reviewer.


Campusfood is a website set up specifically for restaurants and delivery at college campuses. It offers more specific information about the places on the site, including specials and a list of the menu items. These are things that we would like to incorporate into our site, along with the addition of user reviews.

*Restaurant.com - Deals on neighborhood restaurants. $25 Restaurant Certificates for only $10!*  

This website is a directory for a very wide range of restaurants in the US. It includes information about each restaurant, but it is missing a lot of helpful features that would make it more effective. These pitfalls demonstrate how we can improve this type of website.


This is another website that provides user reviews of restaurants. The rating system and overall layout of the website is significantly more appealing than other similar websites. We can use some of these ideas to make our website more visually appealing and useful.
A review site that claims to be fun and easy; has a simple interface.


This study explores the aspects of restaurant websites that make them successful and appealing to customers.


A study that looks at the differences between how customers and restaurant websites describe a dining experience. In particular, it focuses on the type of language that is used. Their findings are meant to improve the effectiveness of restaurant review websites.

The site for the renowned rating service, Zagat Ratings. More of a prestigious type of site.