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Course: IT 240

Project Name: Backpack Barber

**Project Background:**

We’ve all been to a barbershop or salon at least once in our life. We travel to their place of business, we walk in, we get our hair cut or styled, we pay, and then we leave. Believe it or not, this is exactly how getting a haircut has worked ever since 296 BC, back when people first got paid to style and cut other people's hair in Ancient Rome. For over 2,300 years, the basic fundamental formula for barbers has been the same, but thanks to the ultraportable and super connected world of today, we can create a paradigm shift in barbering, in the form of an app/website that connects us with mobile barbers in our area who come to our homes to cut/style our hair, and are paid through the app (no cash tips necessary). Not only does this allow you to get your hair styled in the comfort of your home, but it also saves the trouble of traveling to the nearest barbershop, you can pay with your credit card, and the individual barber sets their own price which will generally be much cheaper than a barbershop would be.

This idea was created by my older sister’s boyfriend, who’s well known on the University of Missouri Columbia campus as the local mobile barber. He travels to several different apartments and dorms to cut hair for almost 15 people per day, while carrying all of his gear in a specially made backpack, hence the name “backpack barber”. He charges $15 which is nearly half the price of the average cost at a barbershop (which is $28 according to gq.com). This low price as well as the factor of mobility not only makes this system more convenient for the customer, but it’s also perfect for college students, which brings me to my next point: The Target Customers.

**Target Customers:**

Among all of the stresses of classes, tuition, and generally being broke most of the time, college students have a lot on their plate. They most likely may not have the time to learn how to cut their own hair, they may not have the funds to pay for a local barbershop, and they may even be too lazy to leave their dorm. Most college students value their appearance, but don’t have the know-how to style their own hair, so they resort to waiting until they get back home to have their hair styled, or they pay way too much to get it styled at the local barbershop. Not only is the huge amount of mobile haircuts being received at the University of MIssouri Columbia a clear representation of the need for a network of mobile barbers at all universities and communities, but I myself have been needing an app like this to exist since I first started college. I still don’t know how to properly cut my own hair, yet I don’t have the funds to go to a barber. Having a fellow student or any mobile barber come to my dorm and cut my hair for the same price as a meal at Chipotle would be fantastic. Even though this service would be great for college students, it would also be great for the average customer who simply needs a haircut but wants to stay home and doesn’t want to pay more than they need to.

**Website Specs:**

The app: In order to understand the specs of the website, we first need to understand the specs of the app. The Backpack Barber app is an Android application that shows a grid of mobile barbers near you. You can view the nearby barbers in a map, or as a list. Once you click on a specific barber, you’ll see their profile page, where you have the options to either message them, view their price, see their reviews, leave a review, or see a gallery of their work. Both the customer and the barber will be prompted to connect to PayPal when they launch the app for the first time. This connectivity with PayPal allows the customer to pay the barber electronically and instantly.

The site: The website for backpack barber will sort of act as an extended version of the app. Not only are the aforementioned features from the app available on the website, but there will also be an online store that sells merchandise, as well as backpacks specifically made to hold clippers and other barber gear.

**Miscellaneous Business Requirements:**

* Contact local barbers who work in barbershops, and introduce them to the app. Delineate the perks of mobile barbering to gain users.
* In order to make money aside from the online store, we’ll take 10% of every transaction made between a customer and a barber. This is to avoid using ads.
* Online store could be powered by shopify.
* A wicked front end that’s functional and beautiful, and can successfully and efficiently communicate with the backend.
* Use of the Google Maps API to track a barber’s location, and display to the customer how far away they are.
* A way for the customer to send and receive messages from a barber.

**Backpack Barber and Databases:**

Backpack Barber is a service that would require quite a few databases in order to function. These databases and tables include the following:

* An ACCOUNT table, which has user emails, first and last names, password, and a boolean for whether they’re a barber or a customer. ACCOUNT will also have an account number as a primary key.
* An APPOINTMENT table, which houses dates, times, address and the ID of the customer and barber.
* A BARBER table, which ‘extends’ an ACCOUNT. Barbers have info such as the amount of money they charge, the city they live in, profile image, description, the type of hair they cut(male/female), and their average rating. Barbers will also have an attribute that counts incremements by 1 everytime they successfully complete a new haircut.
* A CUSTOMER table. Customers also ‘extend’ ACCOUNT. Customers are only here so that we can specify who’s on the recieving end of an appointment and transaction.
* A REVIEW table would be necessary to keep records of reviews from customers. Reviews are an extremely important aspect of the app, since people are gonna let random people into their homes, they need to be sure that they’re a great barber and that people leave great reviews. REVIEW table will have the IDs of the customer who wrote the review, and the BARBER who recieved the review. They will also specify a rating between 1 and 5 stars, represented as an integer.
* A TRANSACTION table. The transaction table would simply keep record of the amount of money that was transacted, and the IDs of the customers and barbers involved.
* For the specifics of a transaction, shopify will be used for financial stuff and maybe an online store attatched to the service.

**Database Business Rules:**

* Many customers may have many barbers and vice versa.
* A customer cannot submit a review of a barber unless a transaction between that customer and barber has been recorded at least 2 weeks after the transaction took place.
* A review must have a maximum of 250 characters, and a minimum of 50 characters.
* The only way for an appointment to sucessfully be recorded is for the customer to submit a request, and the corresponding barber must accept the request. Barbers cannot set appointments without a customer first sending a request. Appointments may be cancelled at any time by the customer, and a notification will immediately be sent to the barber. This is also the case if a Barber needs to cancel an appointment with a customer.
* Barbers are required to upload a profile image of themselves, but customers are not required to do so.

**UPDATE:**

* So it’s March 15th 2018 and I just completed my very last update of the Backpack Barber Website, at lesat for this class. Things didn’t turn out exactly like I planned, but I feel like they turned out a but better than I originally suspected. The site started out with a very ‘material design’ light theme with a mixture of orange and white. Needless to say the whole theme of the site was a but too creamsicle-esc for my liking, so I changed the entire theme to a mixure of pastel orange and dark gray. I dig the whole Halloween color scheme, and I think it’s much better than how it was before. One of the bigger reasons for this change was the decision to make the navigation bar transparent on all views. I felt as though an opaque navigation bar ontop of all of the immersiveness of the parallax home page made it stick out like a sore thumb. I made it transparent to blend it in with the rest of the content and have it on the same plane in the ‘z-axis’. I decided to carry out this design decision throughout the rest of the app too, just because I thought it looked juicy. I also got rid of all of the cards (floating white squares with rounded corners and shadows). Again, cards are a staple of Google’s material design spec, but as we all know, trends move fast, and even though cards were the bees knees back in 2015, they’re begining to seem out of date and cheesy. Ontop of that, You can’t really do much with them stylistically. They’re just white squares. Unique hover effects are out of the question with just white squares, as well as certain visual illusions like opacity, hue manipulation, and whatever else a UI designer might wanna throw in. Cards are restrictive and ugly.
* Aside from the design aspect of the site, I got the store completely working, alongside search, authentication, and the cart. It all works swimmingly. As far as the store goes though, there isn’t much in it. Just a few sample products I made up, with images I stole from h&m’s website. The site is made to be scalable though, so an administrator could easily add thousands of items and the overall functionality would be the same. Backpack Barber was originally meant to be centered around the ‘Find a barber’ aspect of the app. The reason this feature was never implimented is because I was required to buy an API key for Google Maps in order to make this work. I’m a very poor man, so I just decided to impliment the store only. Eventually the maps feature will be integrated when I rebuild the entire site in a JS based framework. Because of this, a vast majority of the models in the app went unused. I only really needed one table (StoreProducts) for the entire site to operate like I wanted it to.
* I think my favorite part of developing the site was the design aspect. Writing CSS (especially SCSS) is a delight. I’m a huge perfectionist so having full control over every single pixel on the screen is great. I love not having to deal with frameworks like bootstrap like give you all that you ‘need’. If I want a navigation bar, I prefer to build it myself from scratch, along with every single other component. I really love web design. I think my least favorite part was just getting used to ruby in general. I’m used to coding in Javascript, C++, and Java, so ruby was a bit of a challenge to get used to syntactically. I still don’t like it (Which is why I’m rebuilding the site with a JS based framework) but I’m glad I learned how to use it. Working with databases and dynamic content is something that I’ve never done with a big project like this prior to this class, so I’m really grateful that I had the opportunity to dive into this. I’m totally going to add this site to my portfolio.
* All in all, I loved this class and I loved working on this site. Can’t wait to dive into more web/app developemt projects in the future.