Beer Me KC

Team 4
Increment 3

Introduction

The craft beer boom currently has an unequivocally upward trend today as more and more people are drawn away from the traditional American lager. As with any cultural experience, the craft beer hobby attracts a wide variety of personalities. Some people simply want to go out for a beer with a friend. More fastidious beer aficionados are only sated by pouring themselves into an obsession; a relentless pursuit to try them all.

Enter BeerMeKC, a mobile web application that will enable beer consumers to locate the best craft beer for them, with an early primary focus on the greater Kansas City area. Our application is designed to draw on familiar functionality to deliver users with an experience that blends functionality of maps, information services, and lets customers interact in a method similar to what you would see in many current dating applications.

Objectives/Features/APIs used

The goal of this application is to introduce beer lovers in the Kansas City area to the wealth of craft beers in the area. The tool will house information on local breweries and taprooms - their current supply of beers, seasonal beers, and more. Users will have the ability to create and maintain an individual profile. This will track beer preferences and be used to drive the engine we use to recommend new beers to the user. While other applications like Untapped[1] provide some similar functionality, we hope our design will create a much more fun, user-friendly experience.

Kansas City craft beer drinkers have many ways to learn about beer, interact with friends discussing beer, and find a location with a beer they might enjoy. However, all of these sources of information are separate and there is no consolidated mashup providing everything in one place. That is why our project is important and will be used.

Project Background and Related Work

Many solutions exist that provide some functions that our web app will have in the form of web apps and APIs. BMKC is an app that hopes to fulfill as many functions that will be relevant to a beer consumer as possible. First of all, our primary resource of data will be BreweryDB[1]. This API is very robust and well defined. So as to have more rapid access in the future the the data and more freedom with how we will use it, we will store it in a MongoDB. Virtually all of our early data will be provided by BreweryDB.

BreweryDB appears to be the most comprehensive API storing information on specific beers. However, there are still listings that are partially incomplete or missing. BMKC will help to fill in those gaps. Here is an example - a beer from Kansas City's Big Rip Brewing [2], called 237 Milk Stout. On the BreweryDB website, the beer information is listed as follows:

The listing is missing important information such as IBU (International Bittering Units) and OG (Original Gravity). Breweries do not always list the OG, but IBU's are usually listed on beer menus. A user could update the listing, a brewery could validate the update, and our database will be updated. Next time the request is made for the beer, it will be retrieved from MongoDB with updated parameters.

Finally, Google Maps API [5] will be used to help users locate breweries. This API provides the ability to find locations, calculate a route to a destination, and filter location results. All of these functions will be taken advantage of by BMKC.

Design of Services/Algorithm

To drive our recommendation engine, we developed an algorithm that takes into account previous user interaction, type of beer desired, alcohol by volume, and IBUs.

That algorithm is as follows:
- Each user has array of beers each beer containing an individual score - default value on beer score 5, and the score will range from 0-10
- On BeerMe Selection score goes up 2 - similar beer scores go up 1
- On Swipe Right (like it, but not now) score goes up 1 (max 9) trigger new beer
- On Swipe Left (I don't think so...) score goes down 2 (but no lower than 1) - similar beer scores go down 1 trigger new beer
- On Swipe Down (I do not like this beer) score goes to 0 - similar beer scores go down 2 - trigger new beer
- On Swipe Up (I love this) score goes up to 10 - similar beer scores go up 2 and trigger a Selection
- When user goes into beer me has type selector, ABV (typical range 4-10 full range 1-14)(default 6), or IBU (typical range 0-50, goes to 120) (default 25)
- Session pulls user scores, type selection, ABV, IBU inputs

- BeerSession score = (UserScore
      + (if (beertype = selected type) 10 else 0)
      + (5 - (abs(beerABV - 6)/2))   //if below 0 treat as 0
      + (5 - (abs(beerIBU - 25)/5))   //if below 0 treat as 0
)/30
- This will result in a beer score from 0 to 10 based on all inputs (round to nearest int)

- Place the beer into an array x times where x is the score
- On each press of beer me generate a random number from 0 - y where y is the array size
- Select that beer and present it to the user (and remove it from array)

Testing

For iteration 3, the majority of our testing was completed as unit testing. However, we did have opportunity to conduct more robust testing on our log-in services through the UMKC Hackathon. However, we were able to execute full screen-to-screen flow as illustrated below in our program flow/implementation.

Program Flow/Implementation

When the the user begins using the BeerMeKC application, we intend to move them directly into our redesigned BeerMe page (which is currently under construction.

The user can still utilize log-in out functionality outside of first use by accessing the side menu as illustrated in these screen shots. We are currently using the ionic side menu template, but have been weighing the value of this template vs. a tab ionic template
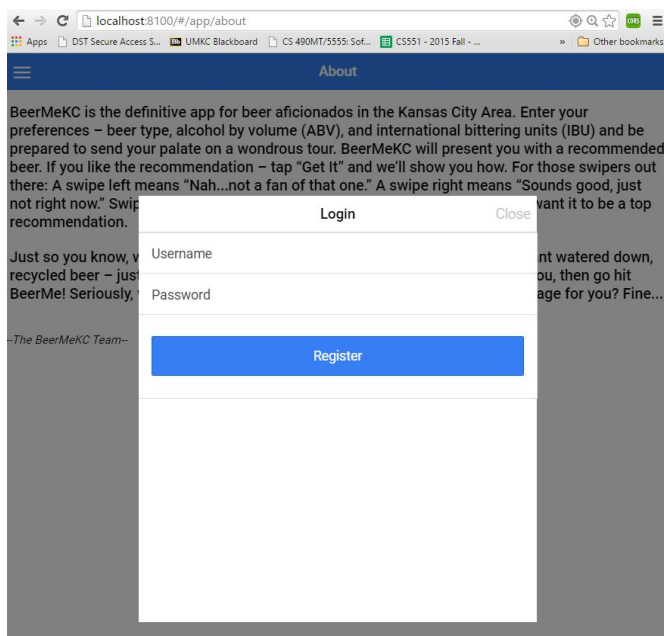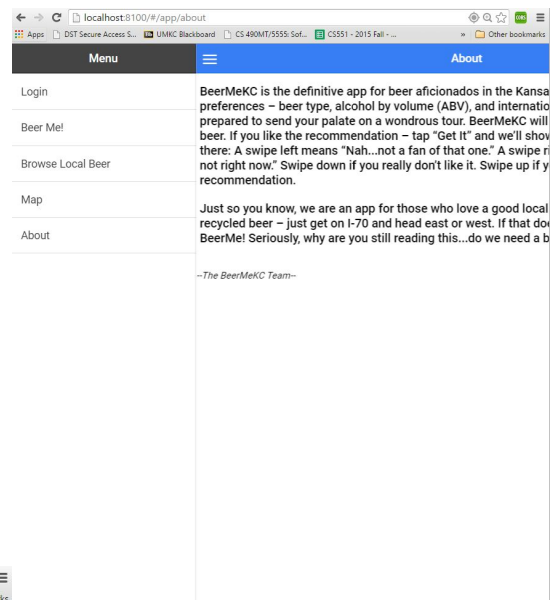
Pictured here is a swipe and the retrieval of the basic login screen with the register option. Future improvements will be the inclusion of remember me and forgot password on this offering .

Also added in iteration 3 was an About page. This page outlines the new functionality and gives the user a description of how to interact with the application.

We drew the motivation for how to interact with the application from popular dating apps that create a sense of action from the user when they are looking at options presented to them. We feel this will be a key offering for the app to really draw users in.
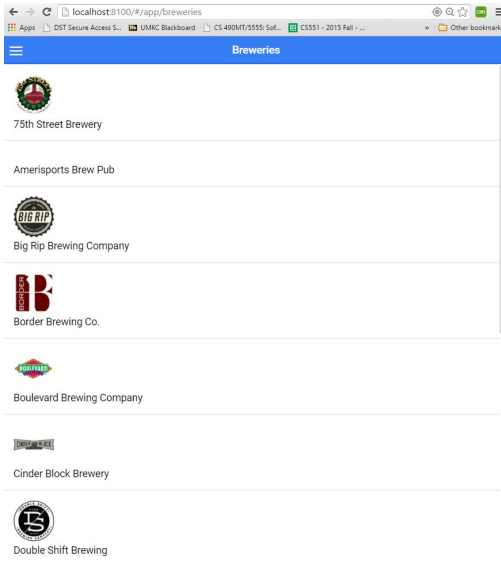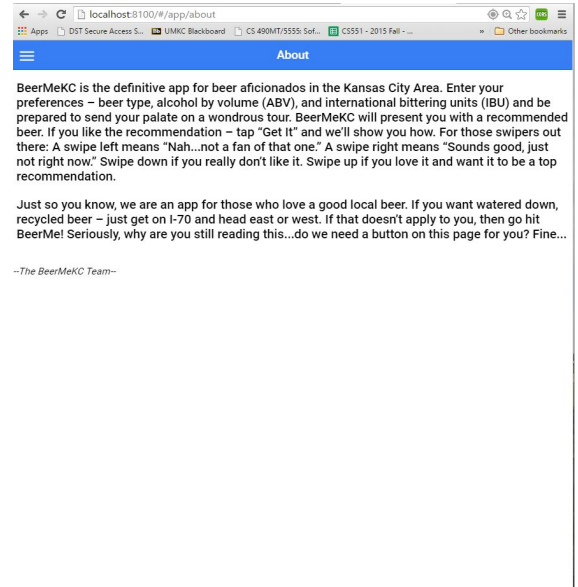
The Breweries listing gives a listing of all of the breweries to the user. This listing information will later be presented to the user in the map view.

The primary purpose of this view is to give the user the ability to find out additional information about the brewery and their beer offerings. This information is presented in detail when the user selects a particular brewery as seen below.

The brewery detail page gives the user the history of the brewery. Talks about some featured/popular beers. It also gives a larger representation of the the logo. Following this information is the information about what beers are offered and what the details on each particular beer are.
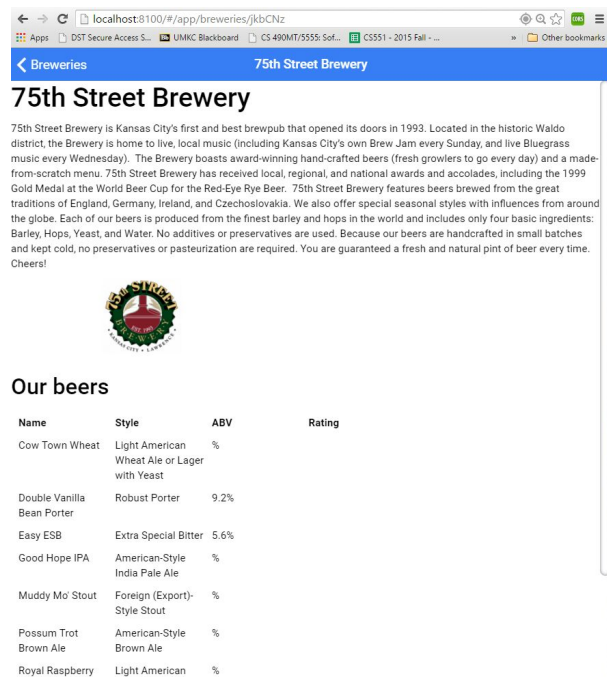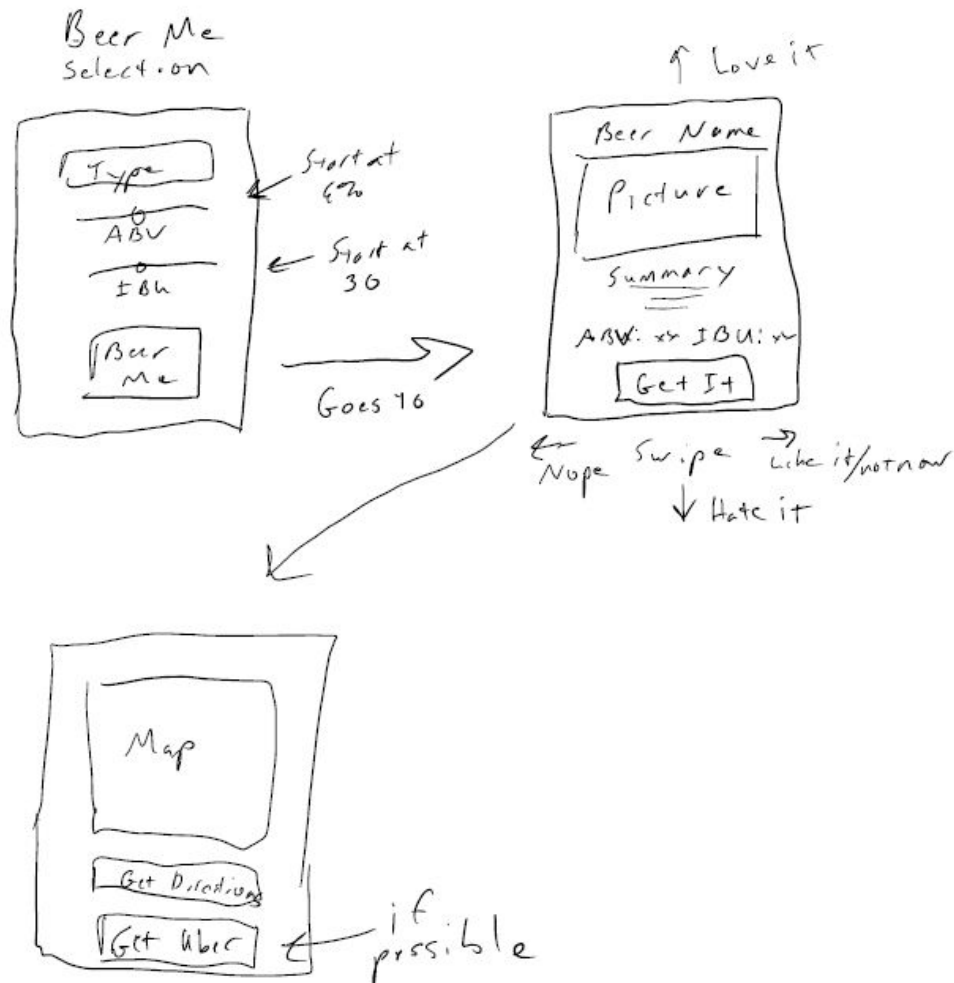
When the user selects maps. They are presented with a functional view of the map with all Kansas City breweries mapped out. This is represented below, with 3 breweries selected. When the user clicks "Click Me" they are routed via google maps to that location from where they currently are.
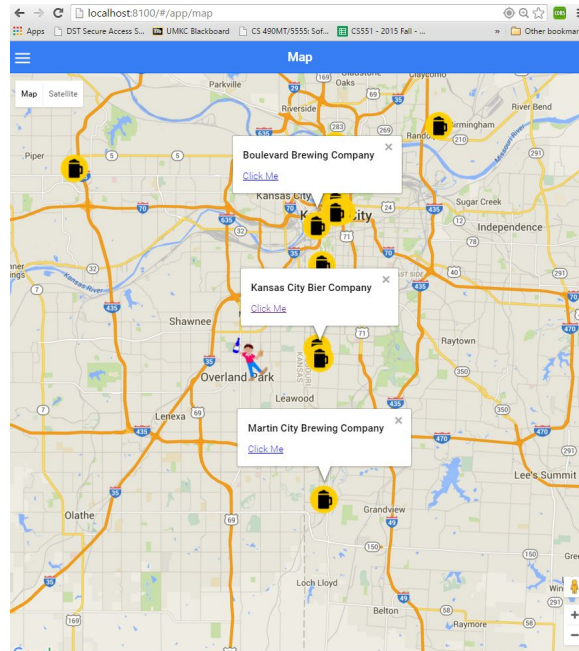
We now have maps fully functional with the side menu template available from Ionic. The issue that was found was the page was not fully loaded before the AngularJS was called. To rectify, we simply added "$ionicPlatform.ready" in the controller for the map before anything is called.
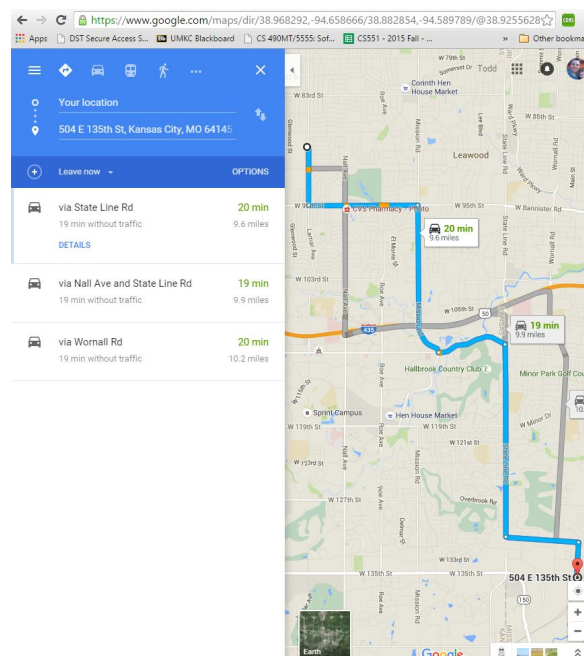
At this point we did not fully get our new interface implemented for the beer recommendation engine, but we did develop a rough screen flow as illustrated below:

Beer Me
Selection

↑ Love it

Beer Name

Picture

Summary

ABV: xx IBU: xx

Get It

Type

ABV

IBU

Beer
Me

Start at
6%

Start at
36

Goes To

← Nope   Swipe   Like it/not now →
↓ Hate it

Map

Get Directions

Get Uber   ← if possible

This functionality is one of our primary remaining key watermarks an and a matter of immediate focus that must be completed for iteration 4.

Deployment

https://github.com/brandrews722/BeerMeKC-Version2

Report

For Iteration 3, our team took the learnings from the Hackathon and re-evaluated the entirety of our project. After much discussion and brainstorming, we revisited some of the core functionality of our application and decided to create more of a "dating app" feel as we introduced users to new beers.

Project Management

Task	Target	Owner	Notes
BeerMe Home UI-remove color slider	11/23/2015	Todd/Matt	Backlogged
Login Functionality	11/23/2015	Matt	50% Complete
Implement users' table in mongo db	11/23/2015	Jordan	Completed
Maps sideview functionality	11/23/2015	Brandon/Matt	Completed
Implement Controller for BeersForBrewery	11/23/2015	Jordan	Completed
Design BeerMe Algorithm	11/23/2015	Todd	Algorithm Posted - 11/20
Pull beer ratings from untappd API	11/23/2015	Brandon	Backlogged
Binder UI	11/23/2015	Brandon/Jordan	Backlogged
Binder Logic	11/23/2015	Jordan	Backlogged
Binder Touch functionality	11/23/2015	Jordan	Backlogged
Brewery DB UI	11/23/2015	Brandon	Completed, but more work needed
Brewery DB API Paths	11/23/2015	Jordan	Completed
Mockups	11/23/2015	Todd	Rough Drafts posted 11/21
Iteration Report	11/23/2015	All	

Bibliography

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