SI582 – Fall 2012

Tipple

A MOBILE COCKTAIL APP FOR THE HOME MIXOLOGIST

Kyle Donnellon

12/5/2012

PROBLEM STATEMENT

Cocktail enthusiasts (some might prefer to describe themselves as a "home mixologist") enjoy making high-quality mixed drinks. Trying out a new recipe, whether it's a twist on an old classic or something entirely creative, is an important facet of this hobby. Entertaining guests by mixing up a creative concoction or quickly locating the recipe and ingredients for a guest's preferred libation is also part of the fun.

Many cocktail enthusiasts (such as myself) are not able to operate from a fully stocked home bar, due to budgetary, space, or other limitations. There are still a multitude of recipes out there that utilize the ingredients we *do* have on hand, or could make if we purchased just one or two more key ingredients.

There currently exist a number of "mixology" apps on the mobile market, but I have found that none meet the needs of those who want to keep track of their personal collection, quickly find creative *and* quality recipes that utilize the spirits, bitters, mixers and other ingredients that we do have on hand, but also provide quick and easy access to both classic and unique cocktail recipes.

SOLUTION OVERVIEW

Tipple is a mobile app that serves as a multi-purpose resource for home mixologists. For the optimum experience, users start by taking "inventory" of their personal collection of cocktail ingredients, inputting them into *Tipple*'s "My Liquor Cabinet" via barcode scanner or text entry. At this point, users have a variety of options at their fingertips: they can directly jump to a sortable list of cocktail recipes that they can make using the ingredients they have on hand, a recommended list of recipes based upon their favorite or most frequently made recipes, search or browse the expansive database of cocktail recipes contained within *Tipple* via multiple facets, or even make a shopping list for their next trip to the party store, including recommendations made by *Tipple* based upon the user's current ingredient collection as well as their favorite recipes. All recipes are color-coded by whether the user could make it with their "Liquor Cabinet", if it could be made with a minor substitution using an ingredient they have on hand, or if they would need to purchase additional ingredients. Recipe screens provide clear instructions, full ingredient lists (including substitutions when appropriate), as well as the traditional serving glass type.

FINAL DESIGN

Tipple *is designed to be QUICK, INTUITIVE, PERSONALIZED and DELIGHTFUL.*

FUNCTIONALITY OVERVIEW

Tipple is designed with a focus on three main user goals. First, the user can quickly add and maintain the ingredients she owns into the My Liquor Cabinet section of the app, which **keeps track of her current inventory**. Two options for ingredient entry are provided (barcode scanning and text entry with autocomplete), with the intention of decreasing both the burden of

the initial entry of ingredients, but future entries, as well. The My Liquor Cabinet view allows the user to see what she currently has, remove anything that has run out, and (*planned future function*) add it to the Shopping List for future purchasing.

Secondly, *Tipple* provides the user with **quick access to quality cocktail recipes**. The user can quickly search for a specific cocktail recipe, or access Favorite or Recommended recipes straight from the home screen. Recipes are color-coded (using stoplight colors) to quickly convey to the user whether or not she can make that recipe on the spot, and can be organized along multiple facets, such as base ingredient or flavor profile, making the user's decision-making process flexible and faster. While browsing for recipes, the user can opt to search only for recipes that she can make using her current Liquor Cabinet inventory, cutting down on the number of recipes to sift through.

Finally, *Tipple* is also designed to make **exploratory browsing for an inspiring recipe** easy and flexible. The Browse option is available from the home screen. Within this menu, there are options to browse based upon *Ingredient, Flavor Profile* and *Recommendations* from *Tipple*. Another option is *Classics*, where users can explore classic recipes such as martinis and punches that remain popular from generation to generation. Allowing users to browse along these different facets provides more opportunities for serendipitous inspiration, which hopefully will result in finding a new favorite cocktail!

MAIN PARTS OF DESIGN FLOW

Tipple is broken down into four sections from the home screen: Browse, My Collection, Favorites and Recommendations **(see Appendix A)**. The design flows of each section are discussed below.

BROWSE

The user has the following options from the Browse Recipes screen: she can enter a query for a specific keyword directly into the search box and be taken to the results for that query, or she can browse for recipes.

There are four options for browsing for recipes: **By Ingredient**, **By Flavor**, **Classic Recipes**, and **Recommended**. On each of these browsing screens, there is a check-box (selected by default) that limits the recipes to those that you can make based upon the ingredients currently in stock in My Liquor Cabinet.

Browsing by Ingredient or browsing by Flavor will lead to interactive accordion menus containing ingredient or flavor profile headings. These accordion menus allow users to see the most headings on the small screen real estate of a mobile screen. Selecting a heading will expand that section of the menu, and show the recipes categorized under that heading. The recipe lists, like all others within the app, are color-coded to denote whether the user has all the ingredients to make the recipe (green), has all the ingredients, one or more of which is an acceptable substitution, to make the recipe (yellow, with an icon 🔄1 that denotes that substitutions are needed, and the number of substitutions required), or if the user needs to purchase additional ingredients to make the recipe (red). Recipes that have been marked as favorites by the user will feature a star icon ⭐. An example set of screen flows for browsing by ingredient can be found in **Appendix B.**

I wanted the experience of browsing for Classic Recipes to be a little more visual than the other types of browsing. The Classic Recipe Collection page presents a matrix of cocktail icons that denote classic cocktail types (martinis, high balls, sours, tiki drinks, etc.). Selecting an icon will take users to a list of recipes of that type, sorted by base ingredient.

Selecting Recommended from the Browse menu will take users to the Recommended recipes page, which will be discussed in more detail below.

From any of these browsing options, selecting a recipe will take the user to the **Recipe Page**. If the recipe requires substitutions, the ingredients to be substituted will be highlighted, and clicking on the highlighted word will present a pop-over box with the suggested substitution from My Liquor Cabinet (and the new amount, if different from that of the original ingredient). The user can select OK, and the substituted ingredient will replace the original on the recipe page (clicking the highlighted ingredient again can revert this back to the original ingredient if the user prefers). An example Recipe Page, and the flow for changing out substitute ingredients can be found in **Appendix C.**

MY COLLECTION

The My Collection section is intended to provide the user access to all of *Tipple*'s features relating to her personal collection of ingredients. There are four options from the My Collection menu: **My Liquor Cabinet**, **Add an Ingredient**, **What Can I Make?** and **Shopping List**.

My Liquor Cabinet is one of the key elements of *Tipple*. This contains a list of all of the ingredients that the user has listed as owning. The information contained in this list is used throughout the app to inform the color-coding (and appearance in the filtered results) for whether a user is able to make a recipe on the spot or not. If the user is using *Tipple* for the first time, she will be greeted with an Empty Results page providing information about the feature and a hypertext link and button to Add an Ingredient. If the user has previously entered ingredients, My Liquor Cabinet will display an accordion list of all of these ingredients, organized by type (e.g. Gin, Bitters), where the generic ingredient will expand to show specific brands/types if applicable. Users are able to remove ingredients from this screen, in the event that they run out of it. **(See Appendix D for screenshot of My Liquor Cabinet)** There is also a search bar available for the user to search within the Liquor Cabinet for a specific ingredient, as well as a link to the What Can I Make? feature, which will be discussed below.

Add an Ingredient provides two options for users to input new ingredients into My Liquor Cabinet: text input (with autocomplete to expedite the process and help users compensate for spelling errors), and a barcode scanner. The user can toggle between the two options. Barcode scanning was chosen because it is a fast input method that could make initial entry of a user's ingredients faster, and is an interaction that most are familiar with from supermarkets and other merchants. The text input is provided as an alternate method for users who choose not to scan barcodes, or to allow for entry of generic ingredient types, or obscure brands that might not be included in the application's barcode database. **Appendix E** contains screenshots of the different ingredient input options.

What Can I Make? takes users to a specific recipe browsing page where the option to search only within those recipes makeable using the user's ingredients is permanently selected. The user can switch among browsing facets (By Base, By Flavor

and Recommended) using a button bar located at the top of the screen. Similar to the other browsing interactions on *Tipple*, recipes are presented in an accordion menu with expandable headings, and use the same color coding and icon system.

Finally, the Shopping List **(See Appendix F)** provides an additional ingredient management feature for the user which takes advantage of *Tipple* being a mobile application. The Shopping List allows users to add ingredients to a checklist that they can refer to when they go shopping at a party or liquor store, which reduces the burden on the user's memory of what ingredients they need to replenish or purchase. Ingredients are added manually using the text input with autocomplete function. There is also a dropdown menu featuring Recommended Items, which are ingredients recommended to the user based upon her Liquor Cabinet contents, which would either allow the user to make a number of new recipes, or that generally complement her collection. Selecting an ingredient from the dropdown menu adds it to the checklist. Once a user checks off an item (presumably having purchased it), the item is removed from the list.

FAVORITES

The Favorites section takes the user to a list of the recipes that she has previously marked as favorites (labeled as "Favorite Tipples"). These recipes are also scattered throughout other browsing/searching results, where they are demarcated with a star icon ⭐. A button bar at the top of the screen allows the user to sort these recipes Alphabetically, By Base Ingredient, and by Can Make (meaning the ingredient can be made using My Liquor Cabinet Ingredients). Alphabetical is the default sorting view in Favorites, because users are typically coming into a list of Favorites knowing what they are looking for by recipe name. Under this logic, a search bar is also available for a user to conduct a known-item search for a specific recipe (especially helpful in the case of an extensive Favorites list).

RECOMMENDED

The Recommended section takes the user to a collection of recipes that are being recommended to her by *Tipple* based upon other recipes that she has marked as favorites, as well as contents, past and present, of her Liquor Cabinet. Similar to other browsing screens, a checkbox (selected by default) toggles the presentation of only recipes that can be made using only the user's Liquor Cabinet ingredients. A button bar at the top of the screen allows the user to sort the recipes by Base and by Flavor.

INCLUSIONS FOR FUTURE ITERATIONS

This prototype contains most of the features and interactions that are intended for the final product, but naturally some items will be included in future iterations. The major interactions that will be added in the future include a more robust user rating and tagging system for recipes, allowing them more control over which recipes they see and are recommended, as well as a section of the app that allows users to add recipes to their database, either by importing from another source, or manual input.

In terms of smaller planned additions, the use of coach marks[1] to provide tool tips and orientation for new users (such as on the empty Liquor Cabinet screen) will make users aware

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[1] See http://www.mobile-patterns.com/coach-marks/ for examples.

of *Tipple*'s many functionalities and color code meanings more quickly, rather than the current pop-over menus that appear only when a user clicks on a Help icon.

Finally, in the future, when a user removes an item from the Liquor Cabinet, she will be presented with the option to add that ingredient directly to the shopping list, allowing the user to make the decision within the same interaction, rather than having to manually enter the ingredient into the Shopping List.

TOOLS FOR PROTOTYPING

One of my personal goals for this project is to gain exposure/command over a number of wireframing and prototyping products. I used two different products for this medium-fidelity prototype, and I hope to iterate at least some of *Tipple*'s interactions using several other products in my free time to gain exposure and practice.

FLUID UI

For the first iteration of *Tipple's* medium-fidelity prototype, I used Fluid UI[2], a Chrome extension for building prototypes. I only made a few screens with this product, but it seems like it would be a good option for making quick mock-ups with reasonably high fidelity. The screens I made using Fluid UI can be found in **Appendix G**.

HOTGLOO

I decided early on not to try using Axure for this prototype, because I had heard about the steep learning curve, and wanted to have time to learn the program before I tried to use it up against a deadline. After exploring a number of prototyping software options, I decided to try out HotGloo[3], a web-based prototyping tool developed by a small group in Hamburg, Germany, because of the multitude of interaction types available within the tool, as well as the positive feedback about the support staff being extremely responsive to user issues.

Once I got the hang of the software's layout, vocabulary and quirks, I found HotGloo fairly easy to use. One of the major features that I was not able to utilize for this project is the capability to collaborate on projects in real-time while communicating via multiple channels. For this reason, I would consider using HotGloo in the future for ***web platform*** prototypes.

I do not think that HotGloo is a good choice for mobile platform prototypes, and unfortunately, I came to this decision too late in the game to switch to a different tool. The product's blog promised that iOS elements would be added "within the next few weeks" back in September, but these elements were nowhere to be found. For almost all mobile-specific elements (such as smartphone template/framework, time/battery bar and keyboard), I have had to seek out the elements and import them manually to use. It took me a long time to figure this out, which made the learning curve steeper. Additionally, I struggled with fine-tuning a lot of the interactions as I would have liked.

HotGloo's support documentation is mostly in the form of several Vimeo videos going over aspects of the software. I prefer written documentation, and would have liked

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[2] https://www.fluidui.com/
[3] http://www.hotgloo.com/

to have seen more of that. Since the product is still fairly new, reaching out to user forums for support was not an option. The support team was extremely responsive to questions I had, however, responding within 12 hours both time I entered a ticket. At least one of these responses made the purpose and functionality of a major interactive element much clearer, and helped me speed up on the prototype. I think the end result turned out really well, and as I mentioned above, I think as this product continues to develop, it could really become great for prototyping.

DESIGN PROCESS

EVOLUTION

This prototype evolved through a lengthy design process, which afforded me multiple opportunities to consider the project from a number of aspects, and make some changes to the concept and interactions along the way.

INITIAL SKETCHES AND BRAINSTORMING

During the initial stages of the process, I was worried that I would end up with an imitation of something that already exists, and thus, was unnecessary. One exercise that really helped break me out of that mindset was the 40 Sketches assignment. Having to think about that many potential interactions for this problem I wanted to solve really opened the door for creative inspiration. This really helped shape the tasks I wanted to address, and how I wanted users to be able to make decisions, because the decision-making aspect of the application is crucial, in my mind. The brainstorming activity happened once I was a little further along in my development process, so no major structural ideas came out of the session (although it was fun!), but an idea from that session that made it into the final design was offering substitution suggestions to users.

LOW-FIDELITY PROTOTYPE

I spent *a lot* of time on my low-fidelity prototype, and I think that as a result, this is the point of the design process in which most of the concepts and intended interactions were fleshed out. I was really proud of my low-fidelity prototype, and I have tested it on a few people. I would have liked the opportunity to test it some more, as the feedback I got from my peers during the in-class testing was extremely helpful and led me to reconsider labeling on recipe lists, among other things.

LOW TO MEDIUM-FIDELITY PROTOTYPE – FLUIDUI

Because I felt that my low-fidelity prototype was successful in outlining the major interactions within *Tipple*, I did not make a lot of changes when I transitioned to making the medium-fidelity prototype. I actually felt a little limited (by the software I chose, which I discussed above) when making the final prototype, because I felt like some of the interactions and/or screens that I had drawn out on paper did not transition quite as well into the prototype. For example, I relied a lot more heavily on accordion menus in the final design than I had planned, because it was the available interaction that most closely resembled how I actually intended for users to move through the application. Making the medium-fidelity prototype definitely revealed some unexpected limitations

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that I had not accounted for relating to screen real-estate, which was valuable and led to minor adjustments in the final design.

MAJOR CHANGES/DECISIONS

The interaction that went through the most sketching/re-designing was the display and organization of recipes when browsing. I want the user to have the benefit of the rich database of recipes supporting the application, but as stated above, my primary goal is to make interactions with this application quick, which means that some structure or rules must be applied. I am happy with the accordion menus in the final product, as I had intended to use them for parts of the application, but I looked at many different options, and I think that when I re-iterate some parts of *Tipple* on other software, I may explore some of those interactions to see if any are better.

DISCUSSION OF OVERALL APPROACH AND PROCESS

WHAT WENT WELL

Overall, I think the approach to designing this app was a good one. I love sketching, and sketching to iterate through design ideas was a new concept for me, and I found it helpful. I loved making a paper prototype, more so than I had imagined, and I definitely will be making low-fidelity prototypes to convey design ideas whenever possible in the future. Having to write about my design as I went through the process was helpful, in terms of changing up the communication channel. The storyboards were fun to draw, but I found the scenarios equally fun to come up with, and felt that they better served my uses as guides during the design process.

WHAT COULD BE IMPROVED UPON

One major roadblock for me this semester was the time slot for this class. I am taking a heavy course load this semester (8 credits), and the week is heavily front-loaded in terms of deadlines. I think I could have spent more time appreciating some of the earlier sketching assignments if the class had been held at a different time. That's a personal issue, and I still feel like I came out with a solid final design. I wish I had more knowledge of design and interaction patterns earlier in the design process, because I think these could have presented some opportunities for experimentation, particularly during the low-fidelity prototype and mock-up stage. I also would have liked to engage in the group brainstorming before the 40 sketches assignment, because I felt like the group activity could have spurred more creativity in my small sketches.
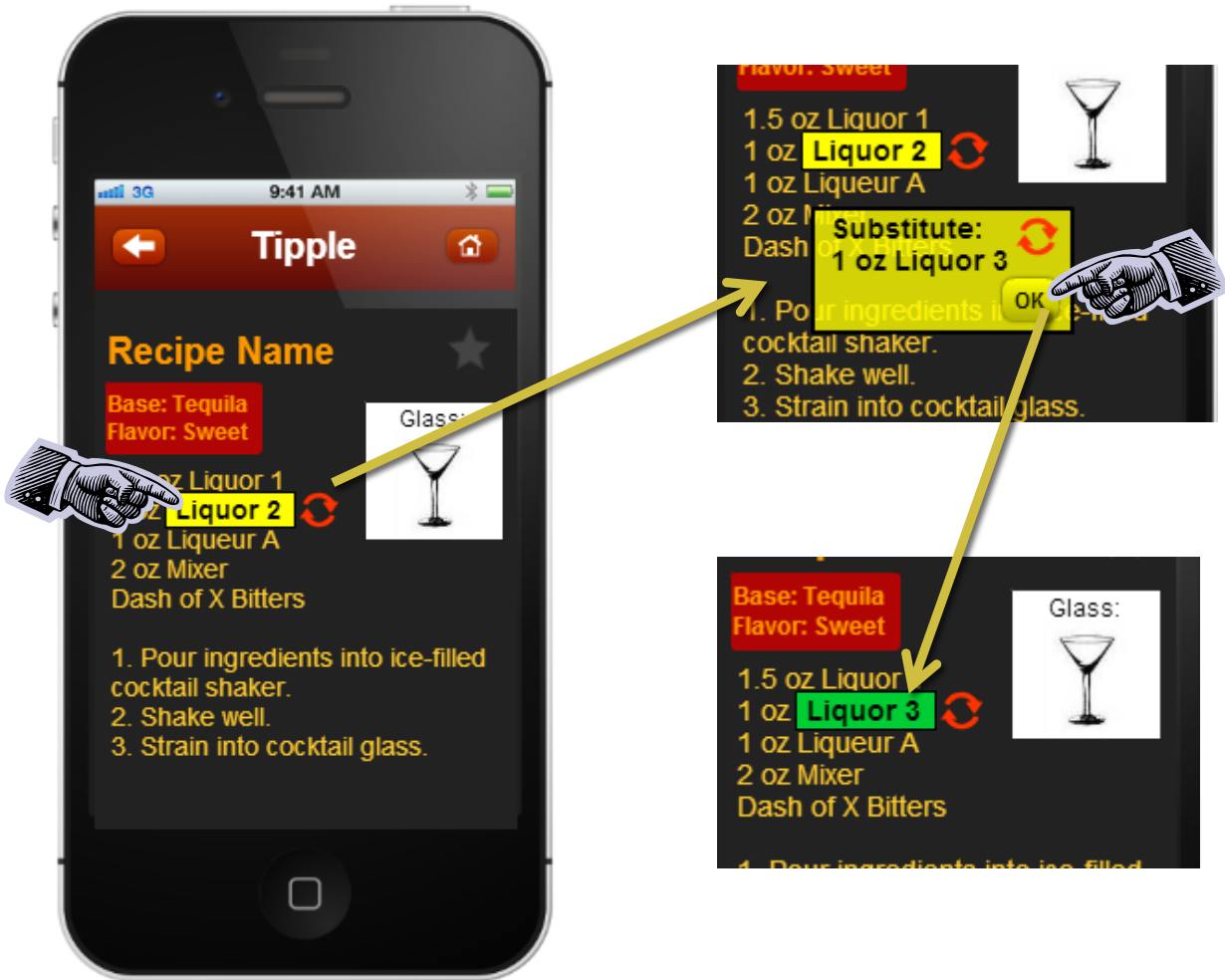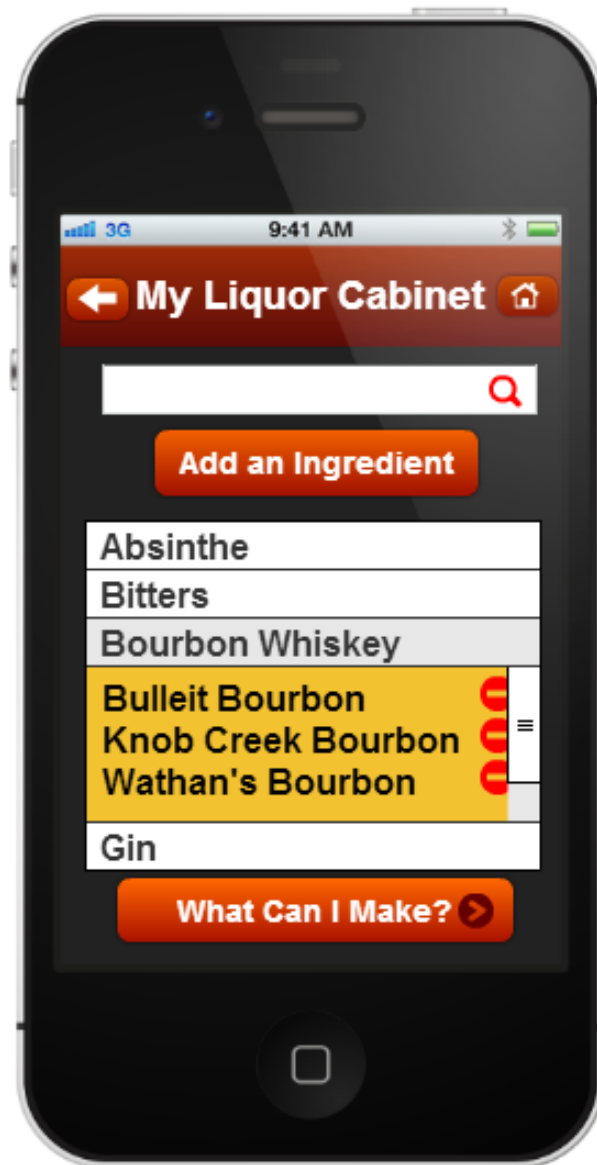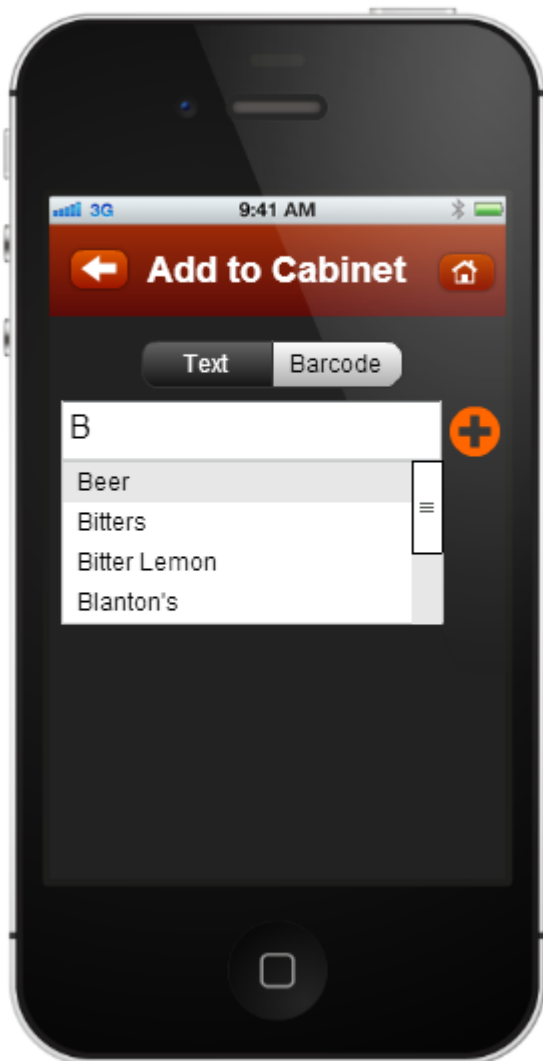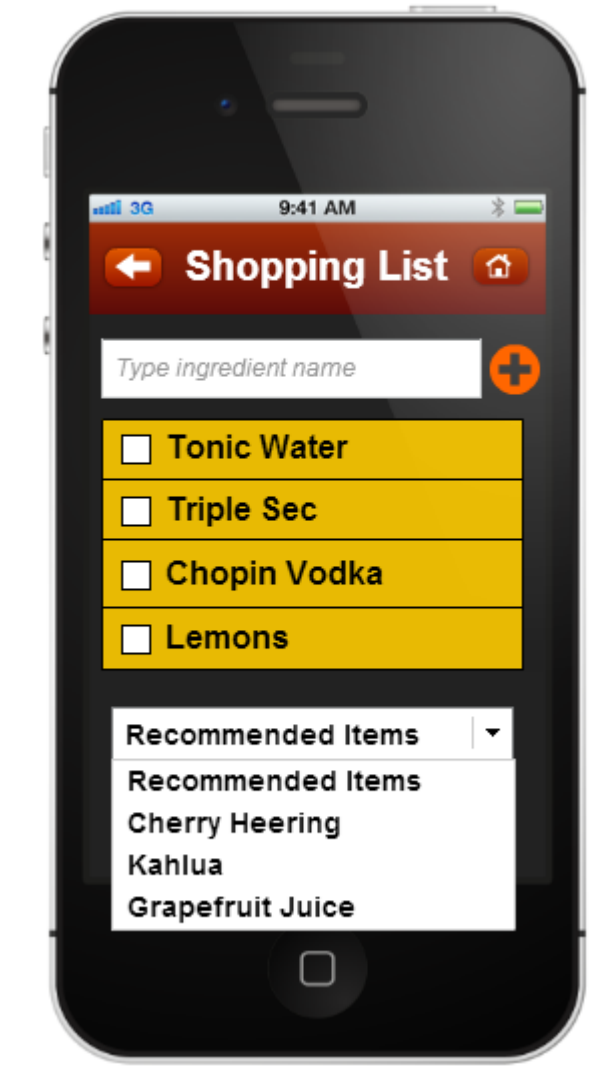
APPENDIX A – HOME SCREEN
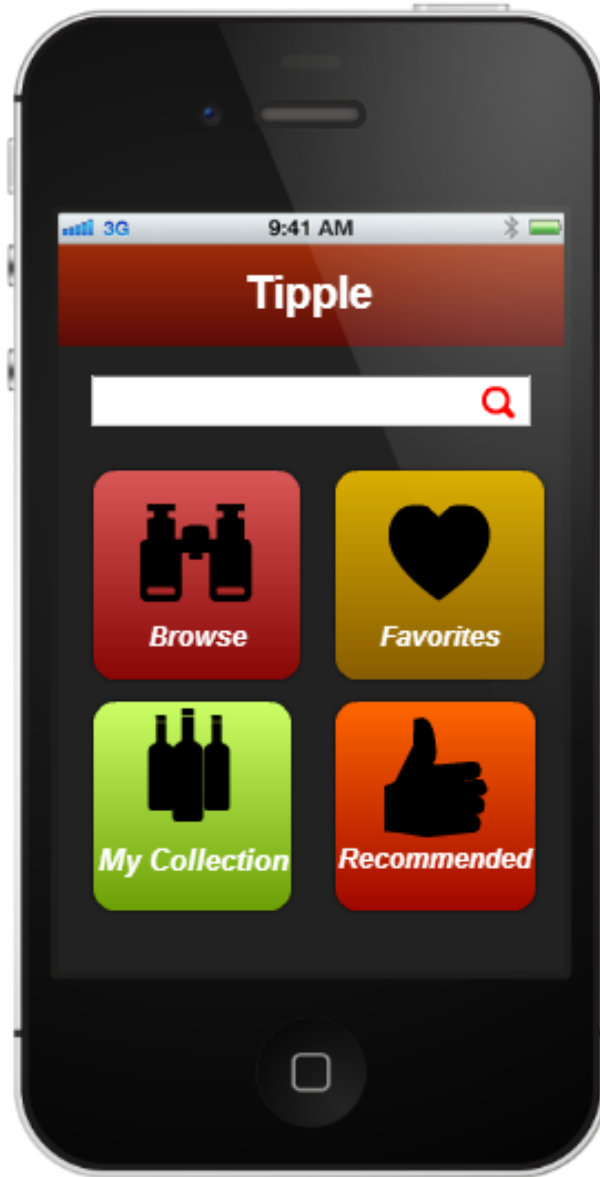
APPENDIX C – RECIPE PAGE

APPENDIX D – MY LIQUOR CABINET

APPENDIX E – ADD AN INGREDIENT TO LIQUOR CABINET

APPENDIX F – SHOPPING LIST SCREENSHOT(S)

APPENDIX G – FLUID UI SCREENS