HOME EC. MOBILE APP

PLAYBOOK

Leslie Boppert, Rahbi-Dijon Simon | MUXD 5203: Design Lab III

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EXECUTIVE SUMMARY

Our client, Kim Holt, approached our team to build an application for saving money, and gave us creative freedom to narrow our scope to a more specific topic. We chose to focus this project on creating a mobile tool for Millennials interested in saving for a home. After receiving client approval, our next step was gauging if there was any interest in potentially buying a home and looking for gaps in the home buying and savings process. We also wanted to find out what tools our target demographic was using to manage their personal finances and what avenues were used to learn about the homebuying process. Current mobile applications focused either on navigating real estate listings or saving in general - there wasn't an option that connected the two. There also was a lack of dedicated digital resources focused on educating potential homeowners outside of search engines or real estate agents.

We were able to conduct and analyze user research interviews to craft user flows centered around two main priorities of potential Millennial homebuyers: saving for home costs and homebuyer education. The intersection of their main priorities is what led to our choice in naming the application Home Ec. Our team utilized personas, journey maps, storyboards, annotated wireframes, rapid prototyping, and iterations to develop a simple, yet comprehensive application with a twofold objective: to assist putting users in the best position possible to save for a home on a long-term, consistent basis, and to help them stay informed about the home buying process so as to make more educated decisions. These developed into key features for the app: building a personalized savings plan and utilizing search and chat tools for homebuyer education.

Our process operated within an agile framework throughout our seven week timeline and moved through each sprint collaborating with the client and iterating on initial designs for the application interface. The culmination of our design sprints was an interactive online prototype that incorporated our key features within an efficient and intuitive user flow that was tailored to fit any level of user.

User testing was conducted over two days and allowed us to gain insight on our objectives. Participants gave us feedback on problem areas, such as editing Plan Details, and suggestions on how to improve the prototype, like creating milestone badges or "achievements" for users to earn after extended engagement with the app. After analyzing the data, our team decided to move forward with the prototype revisions that are featured in the Visual Design section of this document.

BUSINESS NEED

Initial Research Objectives

We conducted targeted user research to find gaps in the saving process, where an application could facilitate the coming together of a user's priorities and needs when looking to buy a home. Our aim was to get insight as to how Millennials organize their savings and if there was any interest in saving for a home.

Key Takeaways from Interviews

- Participants preferred to be in control of their savings and have more flexibility in keeping their monies organized. They preferred saving to be simple, convenient, and invisible.
- The participant's idea of long term savings centered more around being prepared for unexpected circumstances than for meeting specific goals.
- Buying a home is something participants would like to do in the near future.
- Participants tend to look for spaces that connect to some aspect of themselves.
- Participants are more likely to seek and connect to a real person than solely trusting the information they get in an app to be true and accurate.

The interviews highlighted a need for a resource that was convenient to the mobile-first lifestyle of much of our target demographic, that allowed them to access key features without limitations on time or location. The solution needed to be a mobile tool that focused on both education and finances which provided dedicated resources to first-time and veteran homebuyers.

Our Solution

We came up with the following solution for an application design based off of our key takeaways:

HOME EC. MOBILE APPLICATION: *A free educational savings tool for first time and veteran home buyers, where you can chat with licensed realtors, search for related articles, and create a personalized savings plan.* We came up with the name Home Economics, shortened to Home Ec. to highlight the two intersecting focus areas: homebuyer education and personal finances.

BUSINESS NEED CONT'D

User Benefits

Below, we outlined the value this application would bring to its potential users:

- The ability to learn more about the home buying process by reading articles featuring updated financial and real estate information.
- The ability to connect with industry experts to get advice about the home buying process.
- The ability to customize a savings plan to help save for a down payment on a home.
- The ability to access estimated pre-approved loan eligibility and your credit score.

Main Testing Objectives

After building the Home Ec. prototype and receiving feedback from the client, we defined our main objectives for user testing. Through usability testing, we could: determine if the application's Information Architecture and icons aligned with user's mental models, highlight and document any areas of frustration or inefficiency within the application's form design or navigation, identify which search methods were most intuitive for users when looking for related articles in our Library section, and determine if users were able to find previously accessed information stored in the Chat feature of our application. Overall, we wanted to see if the application was easy to use for both novice savers and potential home buyers.

Key Takeaways from Testing

- Plan Dashboard page: The Options button was confused for the Edit button due to placement.
- Plan Dashboard page: The Individual Plan Details were clicked on outside of the Edit screen and thought to be directly editable.
- Plan Dashboard Page: The title of the selected User Dashboard screen does not match the title from the Preview Plan screen.
- Preview Plan page: The difference between Preview Plan page and the selected Plan Dashboard was not noticeable enough.
- Chat page: The Archive button was perceived as a secondary way to access old messages instead of a primary path.

Solutions for these issues are discussed in greater detail in our Visual Design Section.

PROJECT PLAN & AGILE APPROACH

Project Plan | UX Design Lab III: Industry Challenge

* schedule is impacted by availability of users and stakeholders for interviews and feedback

Leslie Boppert, Rahbi Simon / UX Design Lab III / Project Plan / July 15, 2017

	WEEK 1 July 12-18	WEEK 2 July 19-25	WEEK 3 July 26-Aug 1	WEEK 4 Aug 2-8	WEEK 5 Aug 9-15	WEEK 6 Aug 16-22	WEEK 7 Aug 22-29
DISCOVERY							
Platform Analysis							
Defining Design Strategy							
User Research, Product Research & Design Considerations							
RESEARCH + VALIDATION							
Contextual Research							
Reporting Results to Client							
Persona Creation + Journey Mapping							
Presentation Deck Creation							
DESIGN							
User Scenario Creation + Storyboarding							
Wireflow Creation + Annotation							
Structuring Design Flow: Opportunities & Micro-Interactions							
DETAILED DESIGN							
Application Wireframes (2 Key Features Sets) + Annotations							
Presentation Deck of Annotated Wireframes							
PROTOTYPE & ITERATE							
Edited Wireframes							
Clickable Prototype							
Presentation Document of Usability Test Questions							
TEST							
Finding Test Participants + Setting up Test Schedule							
Usability Tests + Video and/or Photos + Pure Method							
Presentation Deck of Results + Video and/or Photos							
Usability Testing Findings Document + Mitigation Ideas							
Reporting Results + Ideas to Client							
PRESENT & REPORT							
Prototype Revision							
Seamless Playbook of All Documentation							
Presentation of Final Prototype + Playbook							

Figure 1: 7-Week Project Plan

Project Plan

The project plan is an important artifact in the UX process that helps to shape the flow of the project, and sets the tone and pace of the project by visually outlining what should be accomplished within a given time frame, and gives the team a shared understanding of how to prioritize tasks within an agile sprint.

Our project plan was created after our first client meeting. The plan spans seven weeks, with each week acting as a different phase in our design process and building upon the research and work completed in previous weeks. Throughout our project, we were able to stick close to our timeline and finish the project by the client deadline.

PROJECT PLAN & AGILE APPROACH CONT'D

Our Discovery phase focused on foundational research for our topic, which was saving money. We narrowed our scope to focus on saving for a home, and completed six research interviews with potential users.

Data analysis of the the user research interviews carried us into our second phase, Research and Validation. In this part of our process, we reported our results back to our client and worked on crafting User Personas and Journeys based on aggregating our data and looking for any trends or patterns. This research allowed us to move forward in the design and interface stages as detailed in our Project Plan.

Agile Approach

After we mapped out our project plan, we kept to an Agile framework for the remaining duration of our timeline. In one-week design sprints, we refined our design strategy and focused on building out the application visually and interactively. Each sprint also included retrospectives and client presentations at the beginning of each week. The structure of the project plan made sure to connect each cycle with activities that carried through to the next week that always took into account client feedback and user recommendations.

Agile Sprint Schedule:

- **Week 1:** User Research and Design Considerations
- **Week 2:** User Interviews, Personas, Customer Journey Maps
- **Week 3:** Storyboards, Wireflows
- **Week 4:** Annotated Wireframes
- **Week 5:** Wireframe Revisions, Prototype Creation
- **Week 6:** User Testing, Usability Test Report
- **Week 7:** Prototype Iterations

THE TEAM

Our team consisted of UX Designers Rahbi Simon and Leslie Boppert. Each designer worked on a different key feature of the application and produced deliverables for that feature. In addition, both conducted user interviews and tests.

Throughout our project timeline, we had roles of Project Manager, Interaction Designer, Visual Designer, and Information Architect (IA). Project manager was a shared responsibility that we took on at the beginning of each Sprint when setting our weekly goals and priorities based on our project plan and client feedback. We took on Interaction Designer, Visual Designer, and IA roles when building our wireflows, annotated wireframes, and prototypes. No matter what role we performed, consistent communication was key in helping drive important decisions for the application and keeping our designs cohesive.

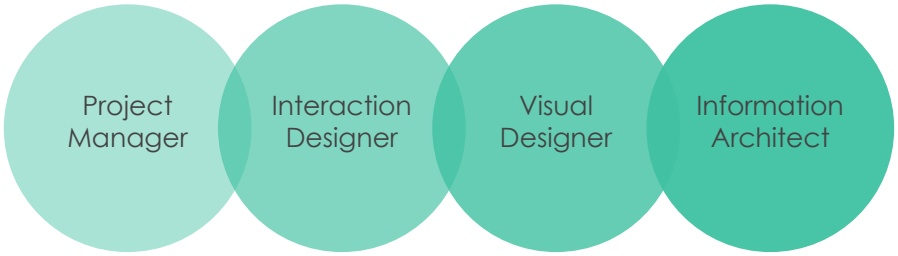

Figure 2: Team Roles

Roughly 20+ hours a week were spent on project deliverables, meetings, research, and testing. Our client, Kim Holt, helped reinforce our project goals and gave constructive feedback that helped drive a more robust application for user testing.

USER EXPERIENCE

User-centered design focuses on understanding and building for the user and their needs.

Our goal was to create products that are intuitive, natural, and tailored to user behavior. We utilized user research, analysis, and usability testing to gain a thorough understanding of the our target users, their needs, and the scope of the application. We conducted user research interviews with potential users, Millennials, to get insight into their saving habits, goals, and commonly used resources. We also wanted to establish what their highest priorities were in buying a home, and to determine their timeline for a potential purchase.

In-depth analysis of our initial research helped us to distinguish two main types of users (novice savers and more established savers) and three main features that they would be interested in using: a search feature, a chat feature, and a savings feature. We created primary personas, customer journey maps, storyboards, and wireflows to help us determine the design strategy for the application. These deliverables help to visualize possible breakdowns in user experience, user frustrations, and user's emotional journeys as they engage in the home buying process.

Our deliverables were key reference points in the later stages of our design process and formed the basis for much of the layout, information architecture, and interactions in our application. To build rapport with our users, we incorporated characteristics, like a natural language search and need-based content, into the Home Ec. app that mimic human interaction. We also integrated personalized elements, such as a personalized greeting and custom news feed on the Home screen, to enhance their experience with the mobile application.

VISUAL DESIGN

The visual design of our application helps formulate our research, analysis, and ideas into a concrete, high fidelity prototype. This includes deliverables before mocking up the prototype and the design of the prototype itself. Throughout the project, our team adhered to using templates when working on different components in order to maintain a cohesive look throughout. Before building the wireframes, an icon set, heading styles, and colors were predetermined to create a consistent visual hierarchy among the different features.

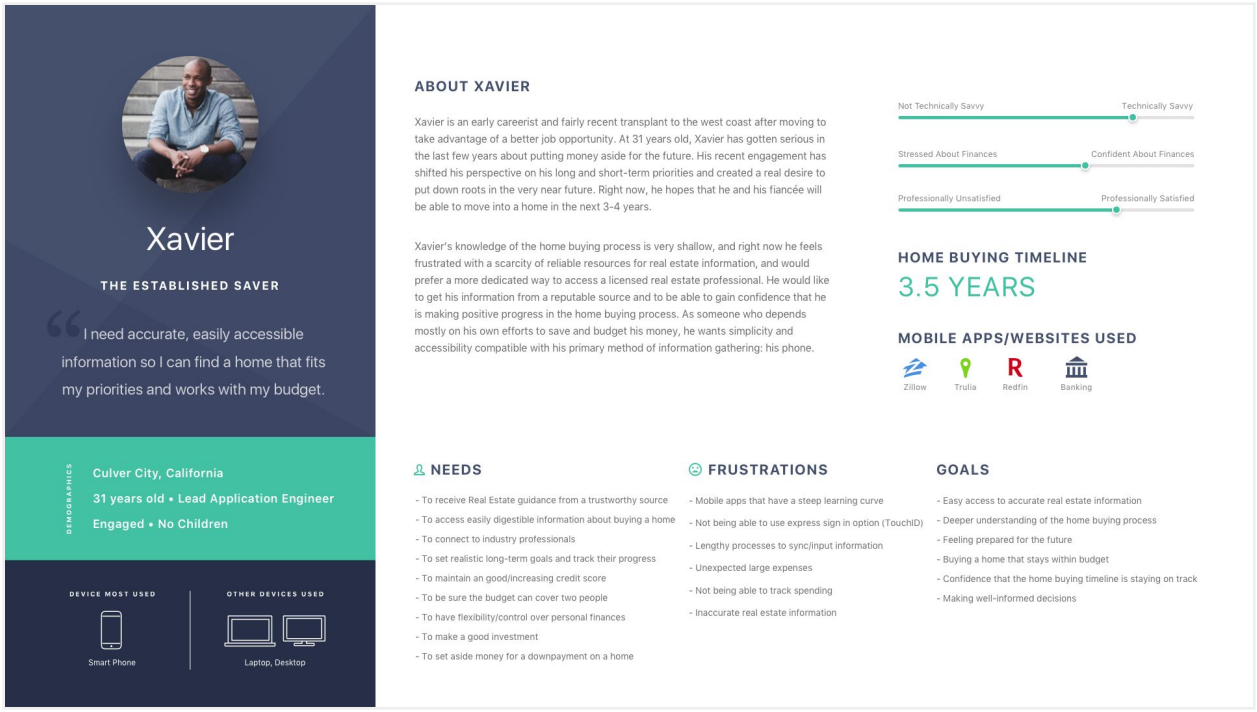

Figure 3: Persona - Xavier

Our user personas are representative "users" of the application that are a aggregate reflection of potential user characteristics, motivations, and needs. The key takeaways that resulted from the user research interviews we conducted assisted in defining our design strategy and crafting two primary user personas. The personas were based off the insights, patterns, and trends that we saw in our data and aligned with key features for the app: building a personalized savings plan and utilizing search and chat tools for homebuyer education. In *Figure 3,* we characterized the persona of an older user that's an established saver focused on finding a reliable source to educate himself about the homebuying process. The needs, goals, and frustrations outlined in the primary personas set up the framework for our customer journey maps and allowed for an in-depth understanding of user behavior and motivations.

VISUAL DESIGN CONT'D

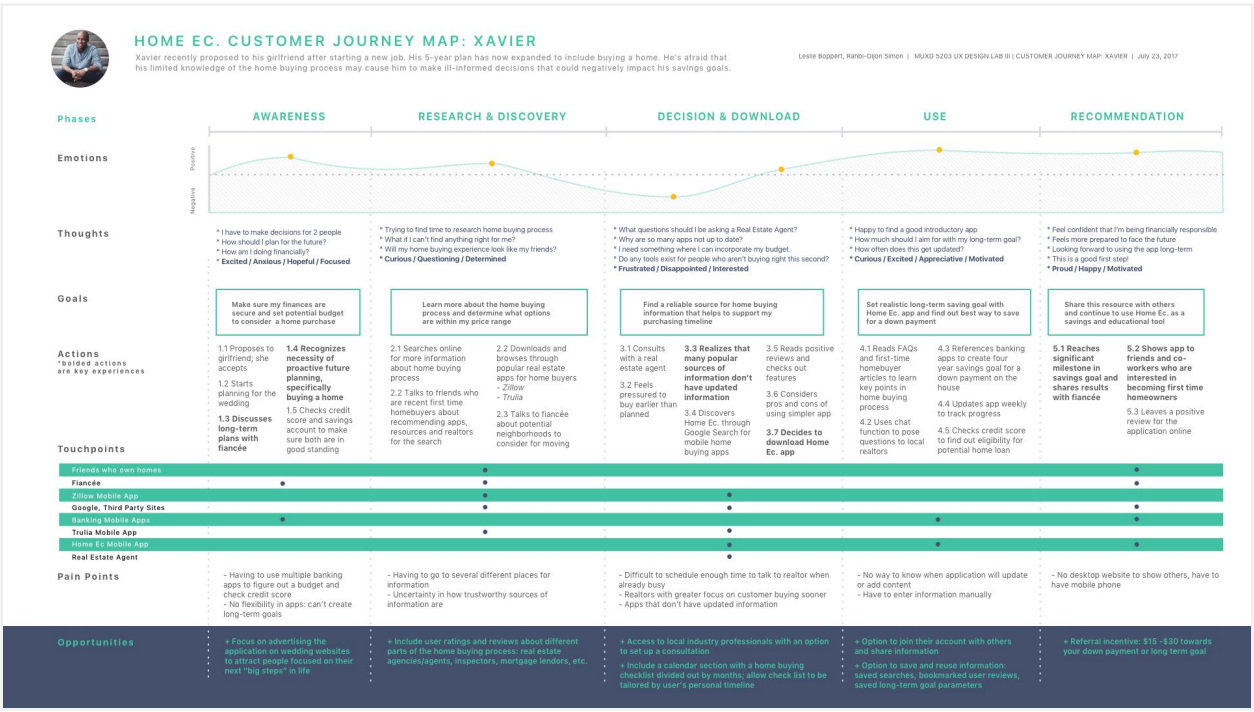

Figure 4: Customer Journey Map - Xavier

Customer Journey maps helped us develop empathy with our users. We created a separate journey map for each of our personas that followed the motivations of users who would utilize different key features of the Home Ec. application. By mapping out the journey of our users, we were able to see what high frequency tasks our users would perform and to define the type of functionality they would need to successfully complete those tasks. In *Figure 4*, we mapped out customer activities, goals, touchpoints, emotions and frustrations.

In this journey map we illustrated the user's current and future state: the current state of the user's experience with available technology and the future state of how they would interact with the Home Ec. application, in this case, specifically with the search and chat features. We also identified opportunities for improvement within the app, based on user pain points.

VISUAL DESIGN CONT'D

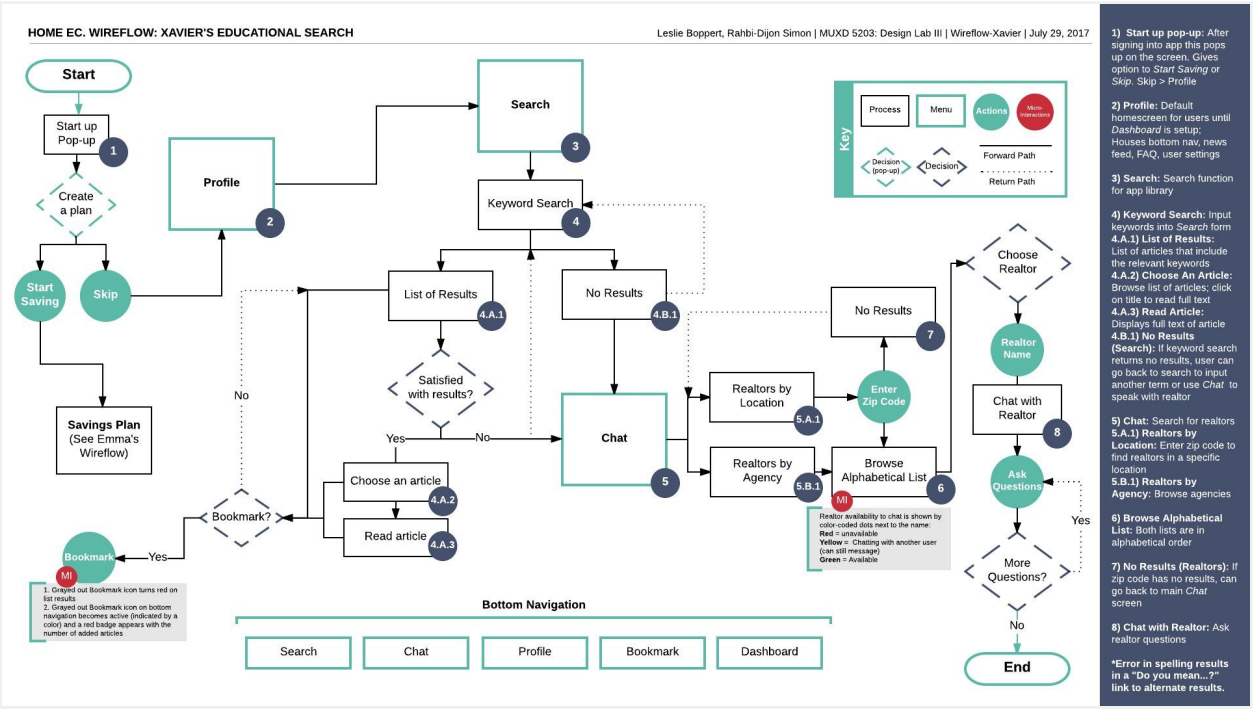

Figure 5: Wireflow - Xavier

Mapping out wireflows during the design process created a visual blueprint that detailed the framework for how interactions are carried out within the application. Creating these artifacts helped to save time later in the design process by illustrating key features and decision points and acting as a design foundation for our future wireframes and interactive prototypes. Our wireflows were a collaborative tool in the design process and helped develop a shared understanding between team members and project stakeholders.

In *Figure 5*, the wireflow helped to illustrate how key screens relate to each other within the Search and Chat application features. Each wireflow we created outlined priority interactions and microinteractions that we later visualized in wireframes. They served as a visual check to make sure the design of the Home Ec. application were feasible and aligned with the goals of the user.

VISUAL DESIGN CONT'D

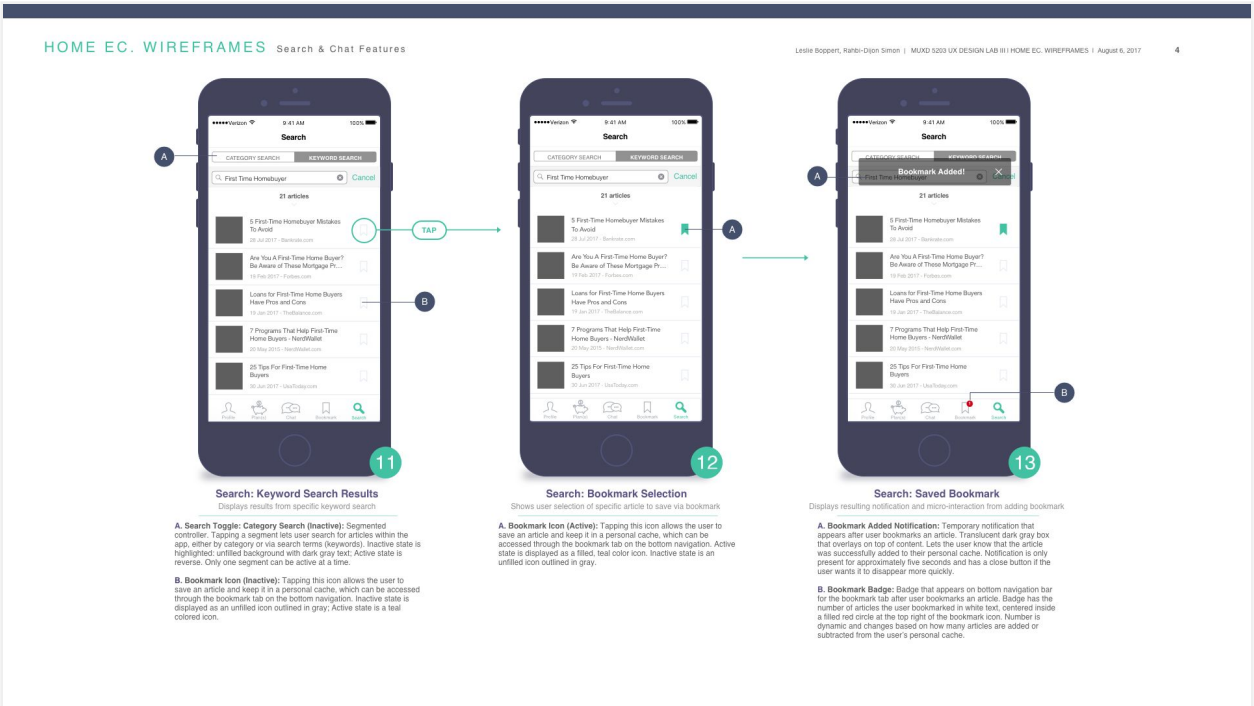

Figure 6: Annotated Wireframe - Adding a Bookmark

Based on user interviews, we decided to go with iOS as our operating system because the majority of our potential user base owns an iPhone. Using Apple's Human Interface Guidelines as a reference, we created and annotated wireframes that helped us map out the application's screens and determine the flow and interactions needed to build a solid application for users. It was a good stepping stone for our high fidelity prototype. In *Figure 6,* we annotated how someone would accomplish adding a Bookmark to an article and where that Bookmark would be stored.

VISUAL DESIGN CONT'D

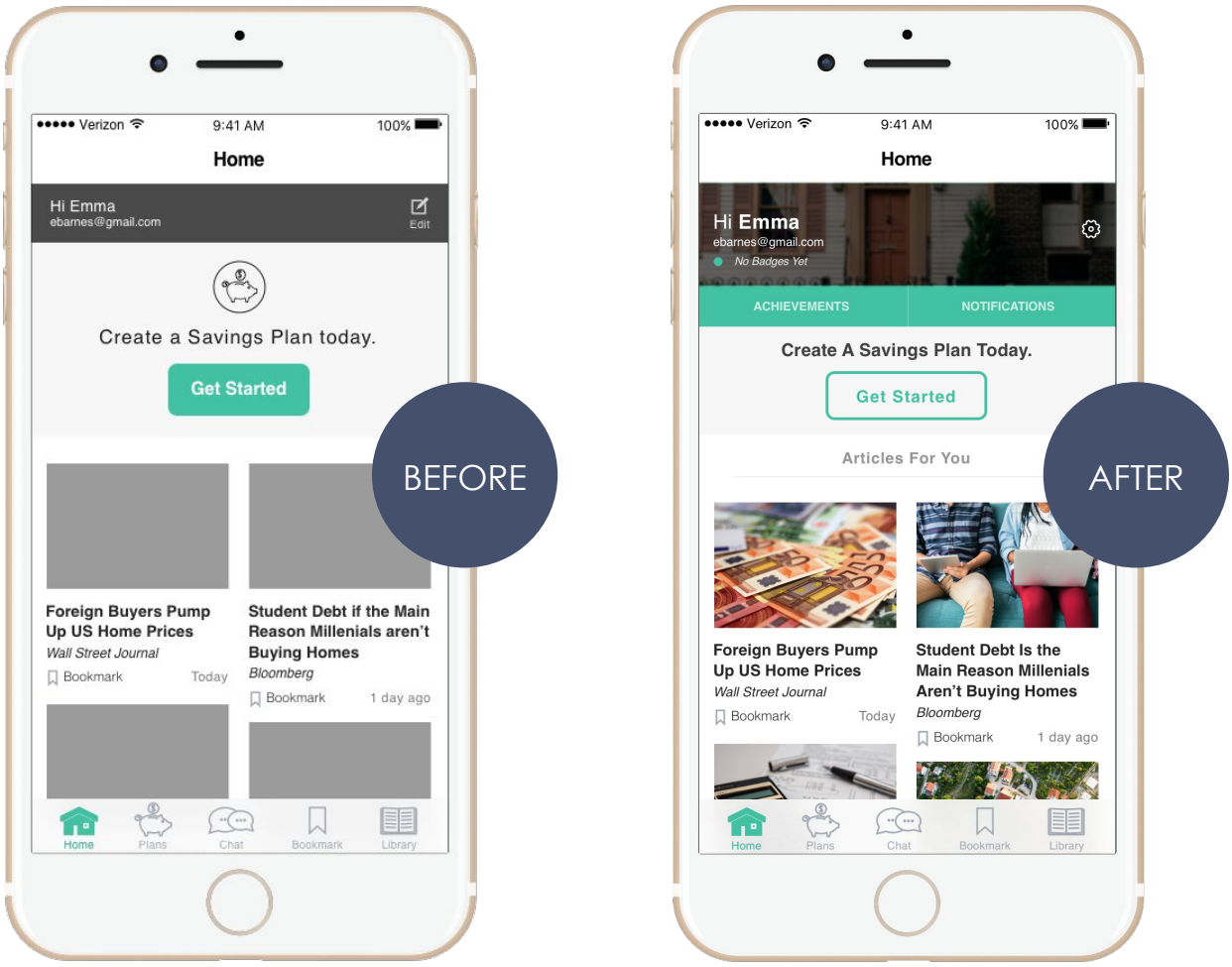

Figure 7: Before and After Home Screens

For our Before and After figures, screens displayed on the left show what users saw during testing. Screens displayed on the right show the changes we made to our application after testing. All our changes were based on participant feedback, which helped us create a better design for the application.

While no participants during user testing had any issues with the home screen, we decided to make some changes to deliver a better experience. On the Home screen in *Figure 7,* we added Achievement and Notification buttons to highlight areas of interest participants had mentioned. We also included a Recently Earned Badge listing in the personalized header to keep users continuously interested in meeting their savings goals. To emphasize personalization, which participants greatly valued, we created a header before the article feed stating, "Articles For You".

VISUAL DESIGN CONT'D

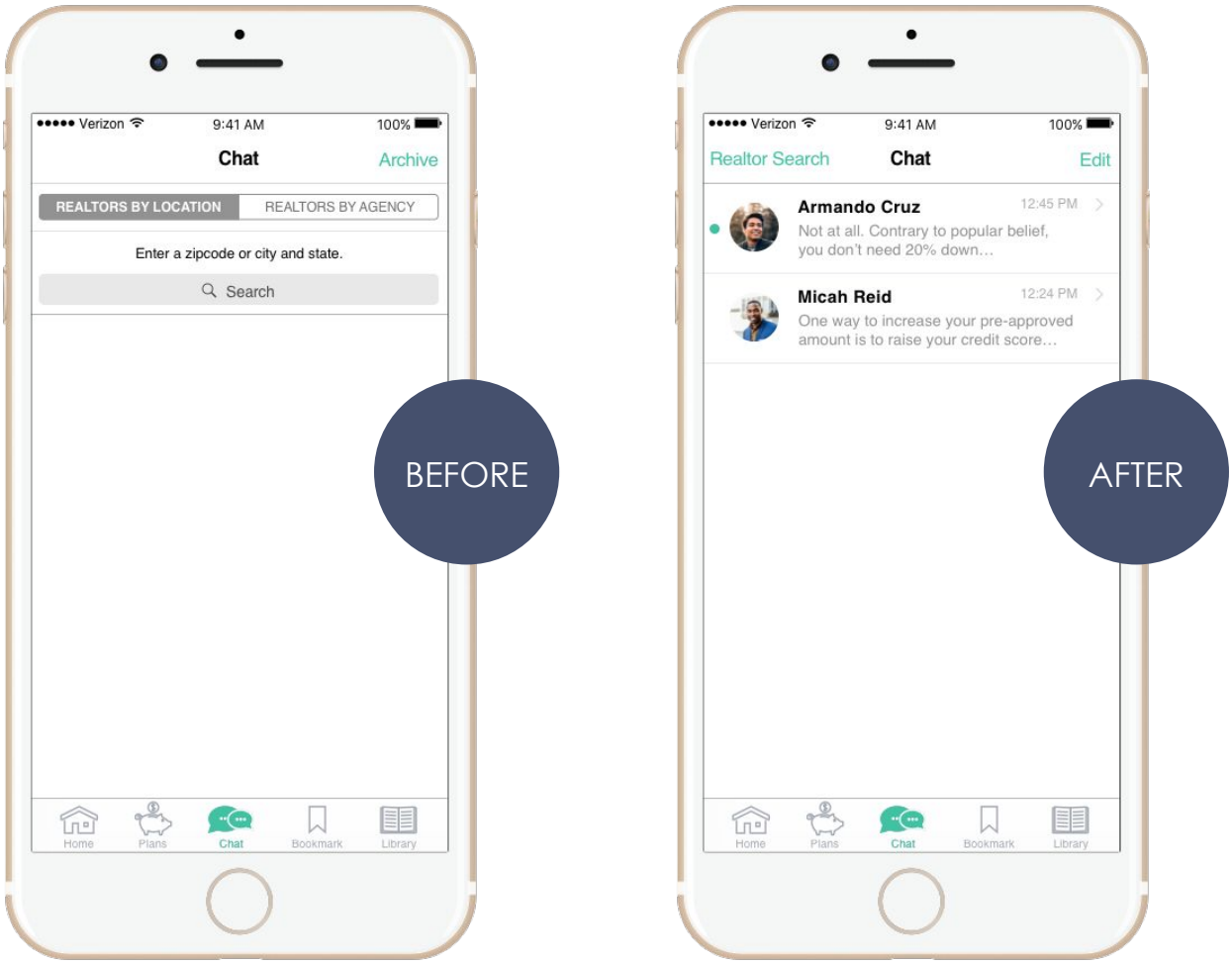

Figure 8: Before and After Chat Screens

On the Chat screen in *Figure 8,* participants felt they should be able to access old conversations with realtors by clicking on their name, similar to other messaging systems. Since our original design did not fit participants' mental models, we decided that the Chat screen should list the user's message history with the most recent message listed at the top. In order to search for new realtors, we included a "Realtor Search" link in the top left-hand corner of the header. By making this change, we hope that this will be a more intuitive messaging system for people to use.

VISUAL DESIGN CONT'D

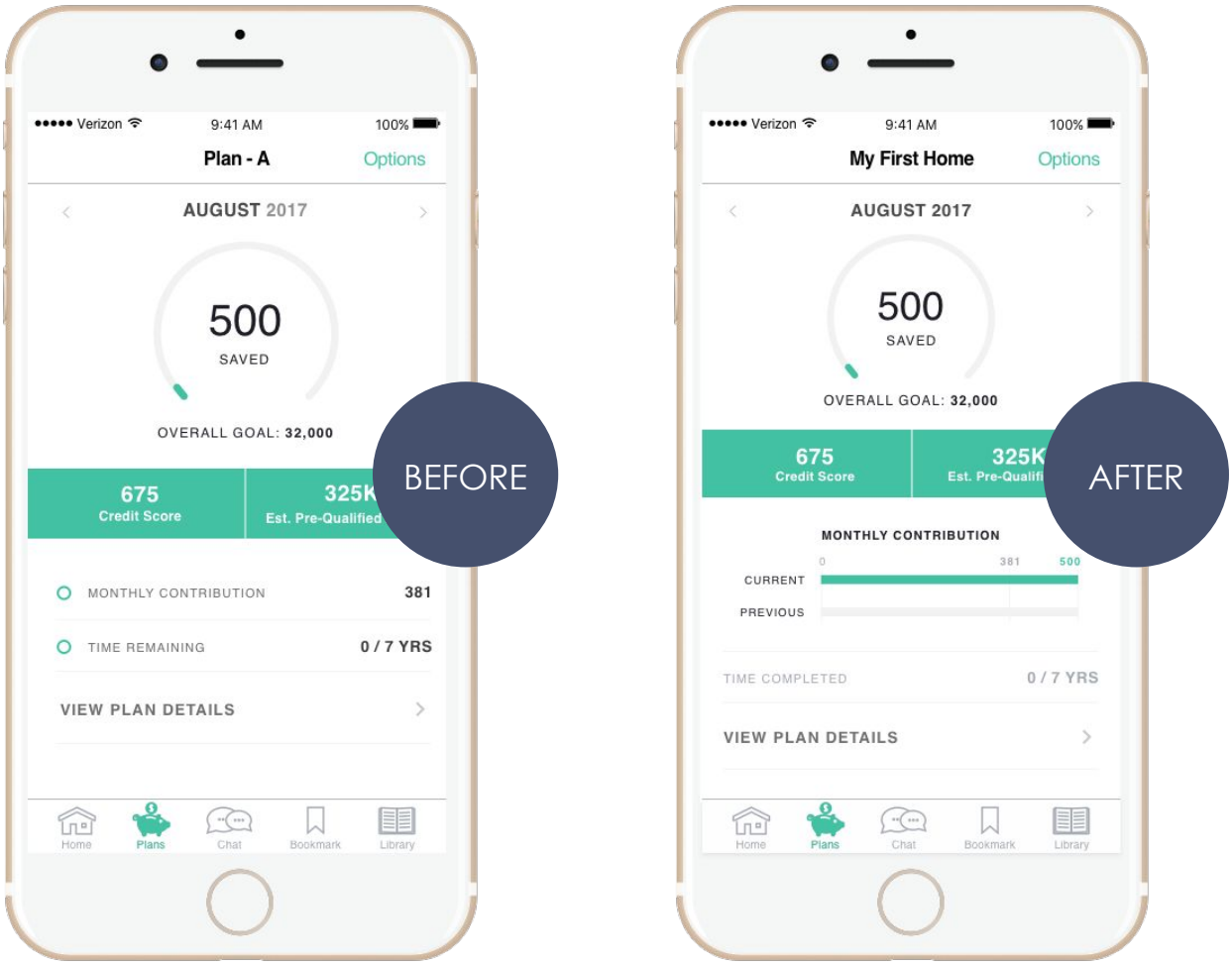

Figure 9: Before and After Plan Dashboard Screens

On the Plan Dashboard screen in *Figure 9,* one participant was confused that the Plan name in the header did not match the selected Plan number. Therefore, we added a pop up after selecting a Plan that asks the user to name their Plan. If they proceed to do so, the name appears in the header (i.e. My First Home). If they choose to Skip it, "Plan - A" will show up as their first Plan title. Any unnamed Plan title thereafter will be in descending alphabetical order.

Another participant mentioned including more visuals depicting financials. With limited Dashboard space, we decided to showcase the most important information when viewing this screen. The visual we highlighted was a bar chart of the monthly amount saved compared to the monthly savings goal.

One last issue that arose was participants thought they could edit the plan details by clicking on the line items. We grayed out the line items to visually show they are not editable until selecting the Edit button under the Plan Details dive in or the Options action sheet.

THANK YOU!