InvestorScope

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a seamless, intuitive way for amateur investors
to discover new investment opportunities.

Contents

Problem and Solution Overview

We found in our contextual inquiry that investors typically only buy what they know. This leads to a lack of diversification and sub-par investment decisions due to a lack of knowledge of the other options. InvestorScope seeks to improve personal investing by helping customers discover new equities using a recommendation engine powered by questions the customers answer, as well as a sortable list of equities based on both quantitative and non-quantitative metrics.

Tasks

Simple - The first task we used to test our interface was a simple search. We want our customers to be able to search for any given equity, and arrive at a page that gives them the most immediately salient information about that stock, with the opportunity of digging deeper if they want to. This task is the same as for the last iteration.

Medium - A slightly more complicated task we chose to test the interface was using a recommendation engine. The recommendation feature asks the customer a number of questions, which it then uses to get an understanding of his or her risk profile, interests, areas of concern, and strategies. It uses this data to offer the customer a recommendation. Over time, the engine delivers better and better recommendations, as it has learned about the customer. This task is the same as for the last iteration.

Complex - The most complex task we have created to test the interface is sorting. Our application has a feature that lets the customer sort equities on the basis of parameters as they see fit. The parameters will be quantitative and non-quantitative, in a language that is comprehensible to the casual investor. Our original task was a sorting functionality that allowed the user to sort equities by only quantitative factors, but we soon realized through our user tests that this approach was misguided, as our customers did not have a good understanding of the metrics we presented them with. So our change will allow users to sort equities according to mostly non-quantitative parameters, some which are relevant to stocks (e.g. “riskiness”) and some that are relevant to the customers’ values (e.g. “environmental friendliness”).

Revised Interface Design

Despite the fact that our customers were generally pleased, we made sure to take all of their comments into consideration, by changing a few critical aspects of our interface design.

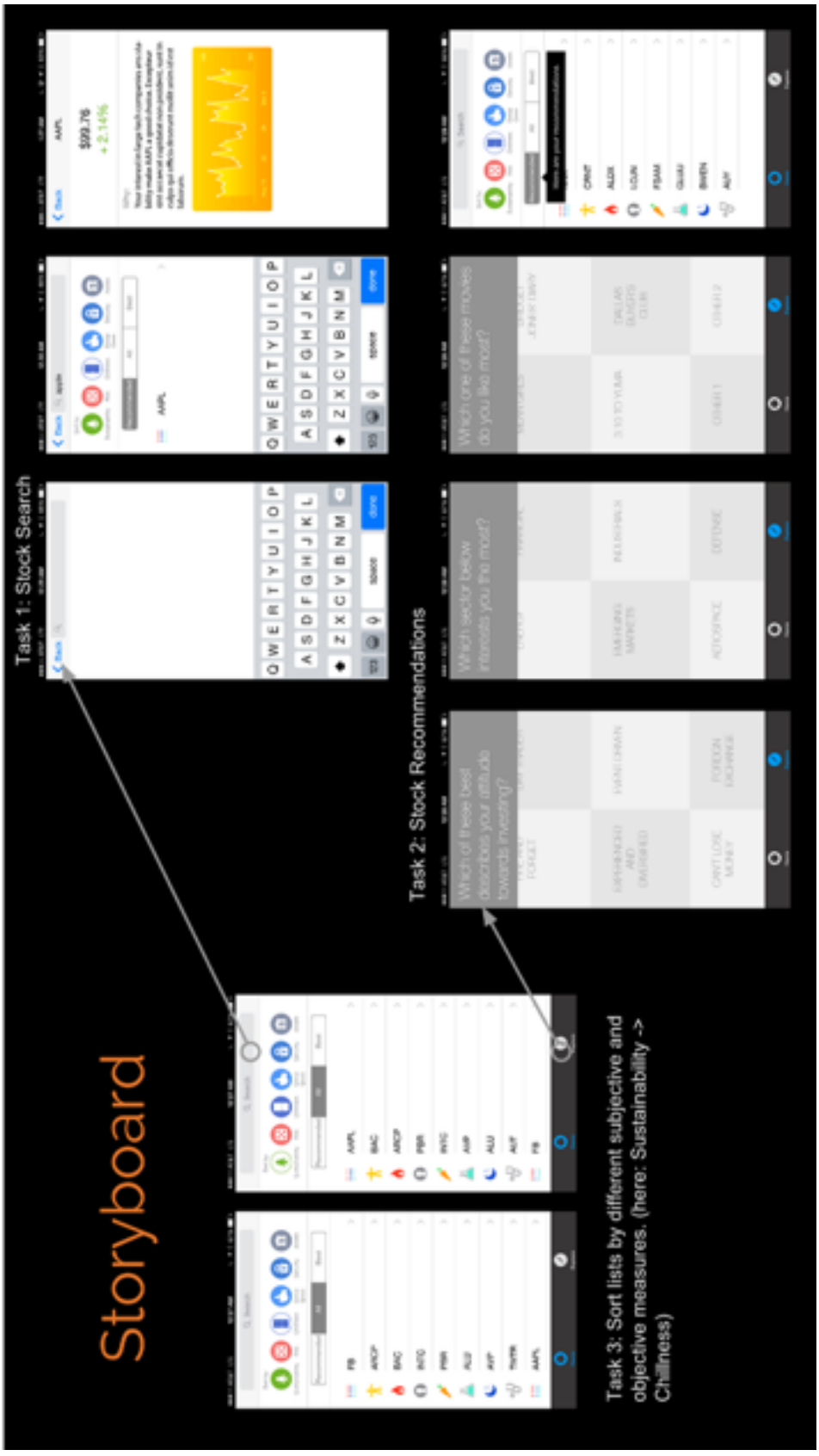
The first main change we made was completely reimagining and redesigning the home screen. Our original home screen was too much of a hub, offering the user no functionality beyond choosing what other features he or she wanted to take advantage of. Now, our home screen is more of a dashboard than a navigation page, offering the customer new value (appendix entry one). We are very happy with the change and believe we addressed one of the main concerns our users had in our experiments (they felt confused about what the homepage was, and why they couldn't access other features more easily, as in, without going back to the original page).

Additionally, we have packed in more questions and answers for the recommendation engine to make use of. We really enjoyed how much our customers liked that feature, so we decided to invest time in thinking how we could make it even more delightful. We decided adding more questions, providing more results, and making navigation between results easier was the best way to go. We made navigation easier by making the results page part of the dashboard, and the "recommended" tab of the table view now shows the results of the question/answer sessions. Comparisons can be found in appendix entry two.

We also changed the search function, making it more intuitive for our customers to act upon a search, and we also redesigned the results page to make it easier for the customer to use (appendix entry three). We made greater use of native platform conventions, so search feels more familiar to users, who complained that it was unintuitive in our lo-fi prototype.

Finally, beyond the overhaul of the functionality of Market View, we redesigned the interface to include more icons, which we believe will help our users complete the complex task of sorting equities according to non-financial parameters such as "sustainability", "social good," and "risk" (appendix entry four).

The scenarios for the three tasks are on the next page.



- For the first task, the customer inputs his query into the search bar, executes the search by breezing the blue button on the keyboard, and then selects the result he wants to learn more about.
- For the second task, he answers a series of questions over three pages, which eventually bring him to a list of recommendations.
- For the third task, the customer uses the icons to sort equities into meaningful lists he can gain insight from.

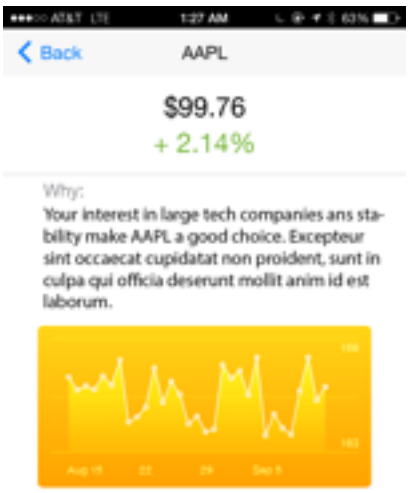
Prototype Overview

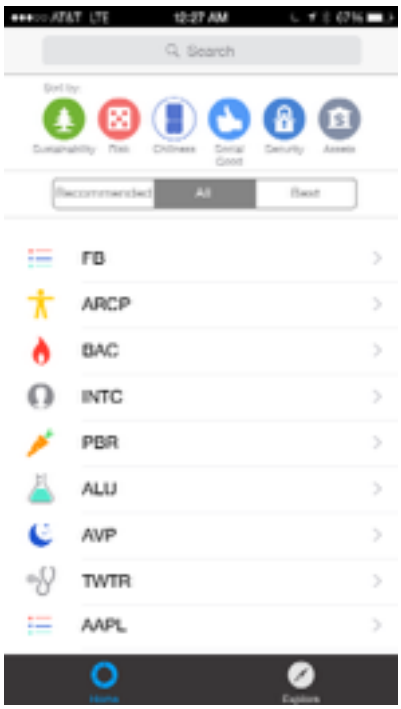
We used Adobe Illustrator to design the screens for our prototype. The screens were then imported to InVision via the Dropbox plugin. In InVision, we linked together the screens using hotspots and made lists scrollable by defining the top and bottom navigation bars. Along with the two applications, we used icons from The Noun Project and assets from the iOS8 Illustrator template found here. The process was useful and easy because Matt had gone through the same process before. He had experience making screens specifically meant to be used with InVision and knew some of the tricks to making it work well. The tools did not help with making our prototype much more interactive than our POP prototype last week. The interface is improved, and the legibility and clarity is significantly improved, but we are still limited by the lack of data and connectivity (to see the prototype, refer to appendix entry five).

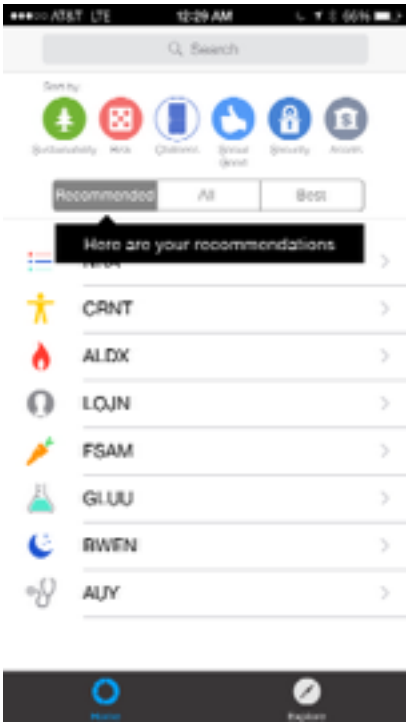
The process was simple enough. However, there are still some significant limitations to our prototype. Most importantly, the backend data is simply not there. So most of the screens are merely simulating what the results would be. This is a necessary tradeoff between functionality and completeness for this stage of our prototype. Even in a tool such as proto.io, which allows you to define variables and other sets of data, it would still be very difficult to make the interface react to real user inputs. So we opted to simulate what what would happen. If we do run further user testing, we would make sure they know that they could enter their own queries.

To make the design work well in a mobile interface, we opted for even more simplicity. We narrowed the functionality down to two tabs. All interfaces that require manipulating a list of stocks take place on the homescreen, and the question/answer interface takes place in the explore tab. Overall, we don't see the need for any non-standard interactions in our interfaces.

Prototype Screenshots






Search
Recommended
All
Best
Here are your recommendations
CRNT
ALDX
LOJN
FSAM
GLUU
BWEN
AUY


Back
Q W E R T Y U I O P
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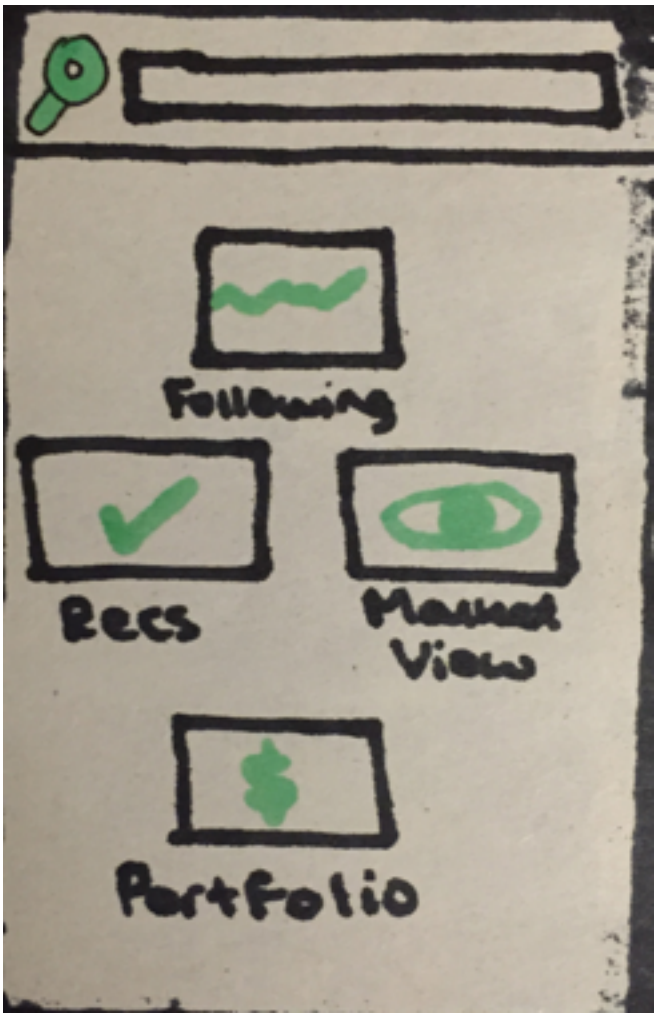
123
space
done

Appendix

Entry one (home screen)



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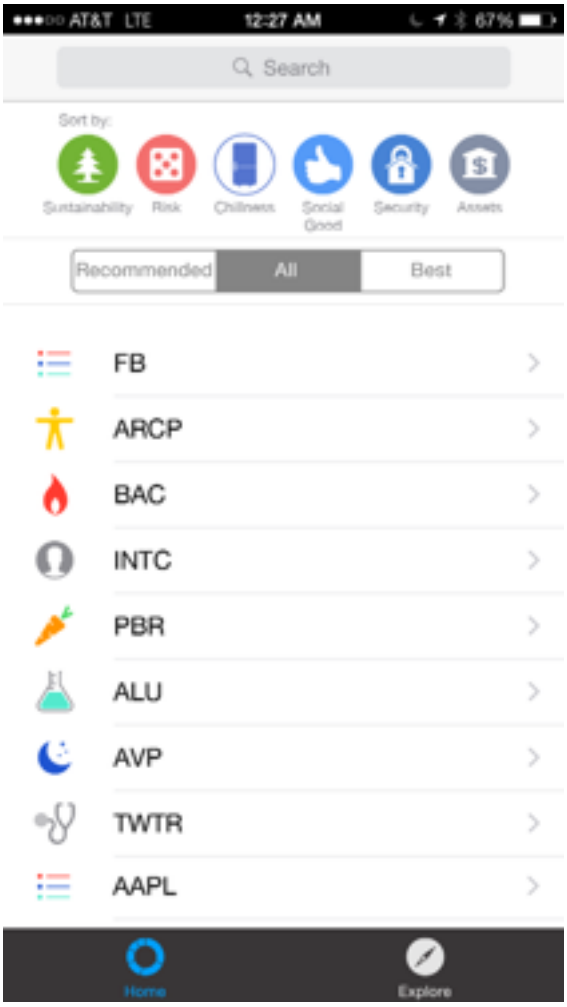
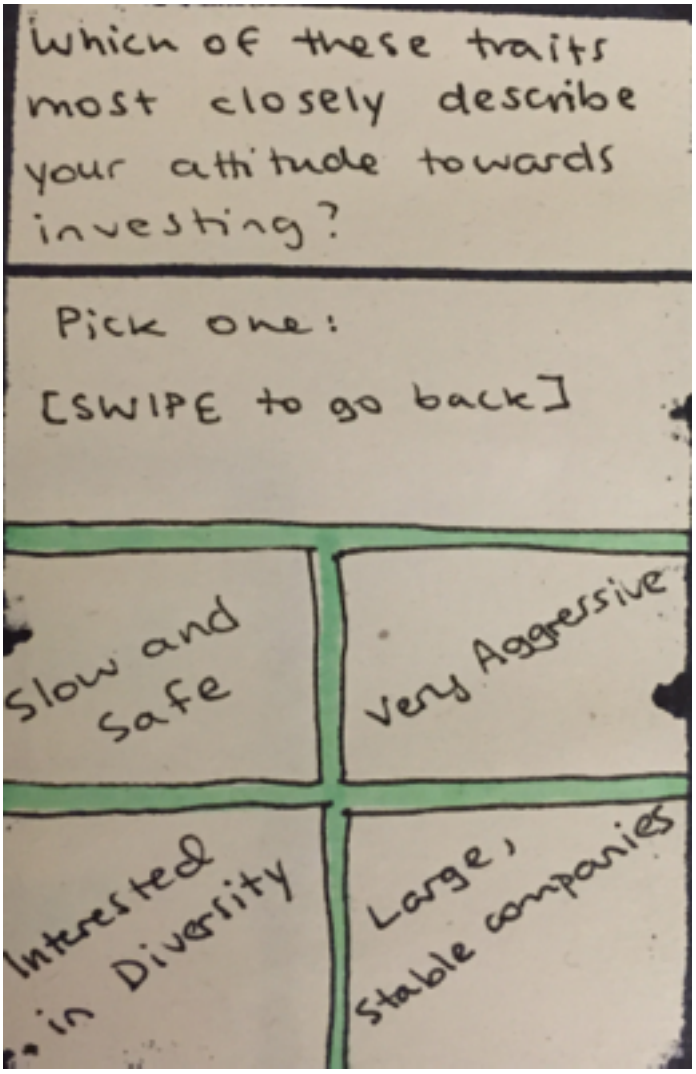


After

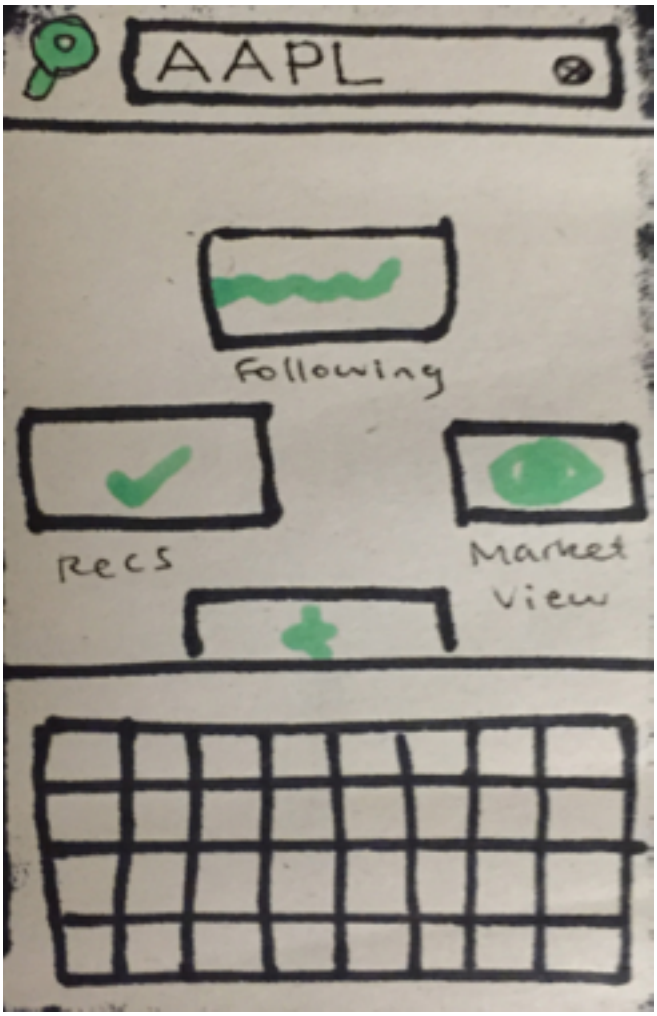
Entry two (recommendation engine)



Before

After

Entry three (search)



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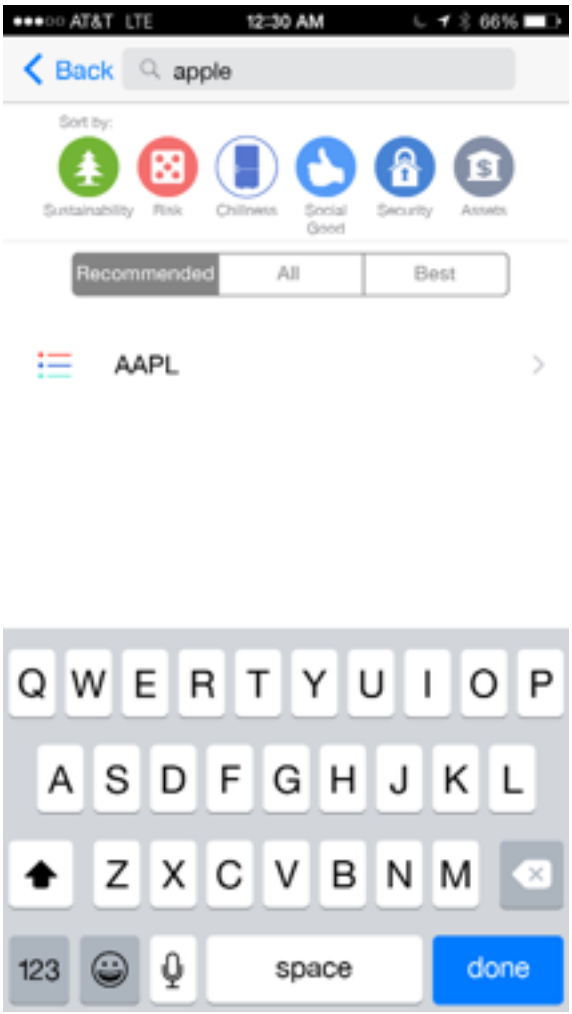
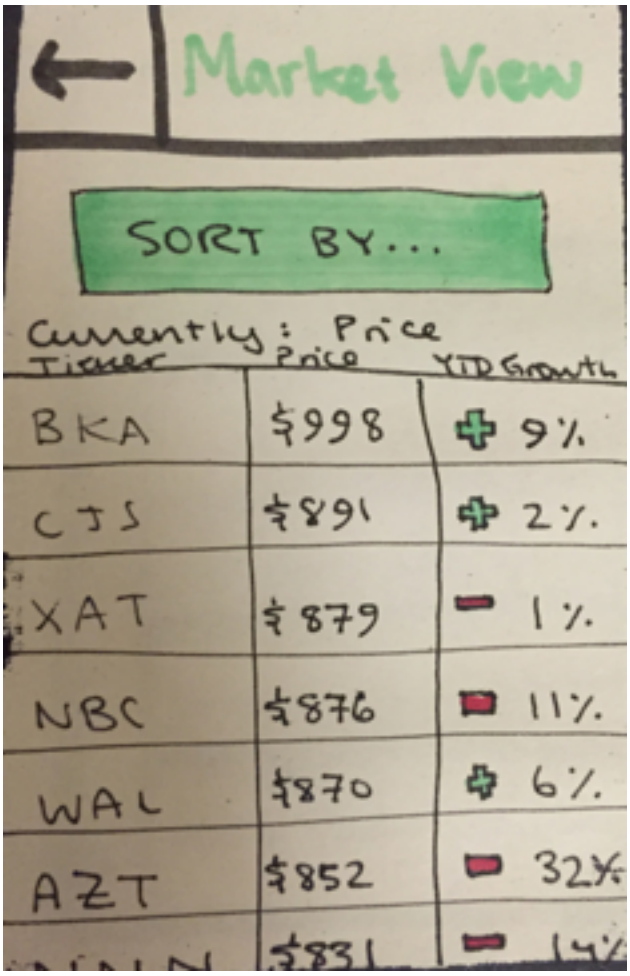


After

Entry four (Market View)



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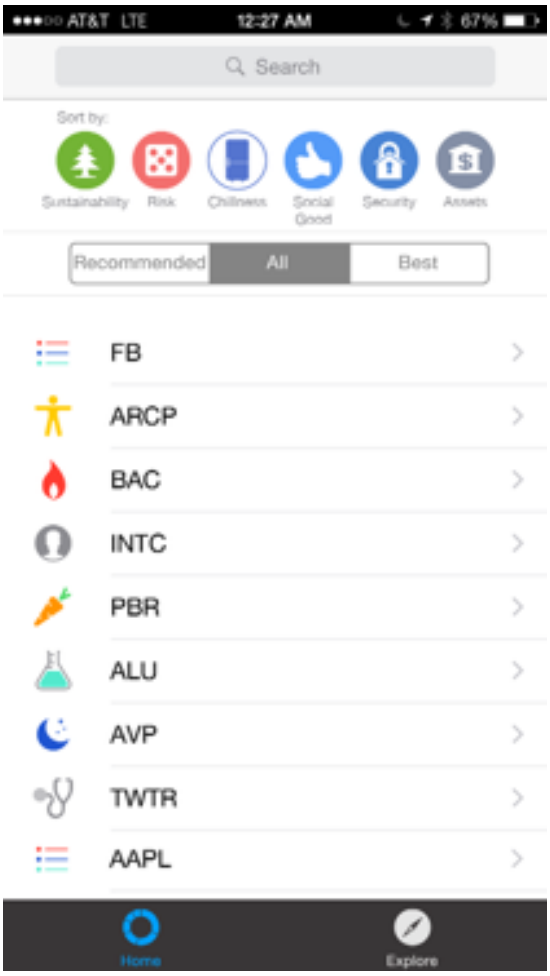

After

Entry five (prototype)

Click on the following link, and you will be taken to it in any browser:
http://invis.io/7H1M2O2W5

You can also send it to run on your mobile device (it will run best on iPhone 6 but should work on other devices as well).

On a desktop browser, you can use your mouse to scroll and “tap”. On the mobile do what you would usually do!

And, if you need to see the README on the Stanford AFS system, here is the link: http://web.stanford.edu/~mappleby/investorscope.html