Hello,

Recently I pursued Product Management opportunity. Prior to the final interview the team assigned me the following:

Prompt:

Assume role of entrepreneur. You realize need in the market for accredited investors, they need to research investment opportunities, don't think anyone is doing well.

Deliverables:

1. Backlog / Roadmap / Feature list
Detailed, any feature that would be needed.

2. Design mockup
Page to display investment opportunities, web app only.
Assume user has specified some criteria to get to this view.

3. Functional spec
How are results being rendered on search results page.
Pretty detailed - could hand off to dev, go on vacation, and come back and it should be 95% done.

4. Business model (max 1 page)
How would we make money? How much are you actually going to make? When will you be profitable?

The following is my take on the assignment. I believe it exemplifies how I think about product management (sans the large functional spec).

Best regards,
Nick Scannapieco

AssetBook Plan

PM Interview Assignment by Nick Scannapieco

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Assetbook Roadmap

Overview

This is a preliminary roadmap for Assetbook based on the results from our initial user interviews, planning exercises, and MVP experiments. I have broken up this high-level roadmap into 3 versions. I have chosen not to call them releases as my goal would be to release new features as frequently as possible in order to learn faster.

These versions are rather high-level milestones for business objectives and functionality based on what we know today. As we progress and learn from our customers the feature evaluations and roadmap will change.

Versions

Version 1

Timeline - 3 Months from MVP completion

Goals

- Validate key assumptions and hypothesis
- Get feedback from more users
- Learn how to grow/market the product

Strategy

- Do things that do not scale.
- Laser focus on the satisfaction of our first 20 customers.
- Learn as fast as possible.
- Focus on a particular category of investment opportunity and do it incredibly well
- Early adopters - people who will just ‘get it’
- Grow through word of mouth, set up local speaking events with industry authorities and invite target market (build community)

Metrics

- Attendance of our events
- Convert 25% of event attendees to customers
- Attrition below 5%

Version 2

Timeline - 9 months from V1 launch

Goals

- Break even, based on preliminary analysis we'll need 1824 MAU.
- Convert inbound customers at a rate comparable to our in person efforts.

Strategy

- Open registration on the web
- Broaden focus of our database to include most requested categories by early adopters
- Learn more from our new customers
- Test market for venture funding

Metrics

- 50% click through rate on newsletter
- Convert 25% marketing website
- Attrition below 10%

Version 3

Timeline - 1 year from V2 launch

Goals

- Secure funding to scale operations
- Profitability
- Validate mass market growth hypothesis

Strategy

- Address the needs of the mass market
- Incorporate learnings from V2
- Automate much of the research/analysis

Metrics

- 10,000 MAU
- Attrition below 15%

Feature Roadmap

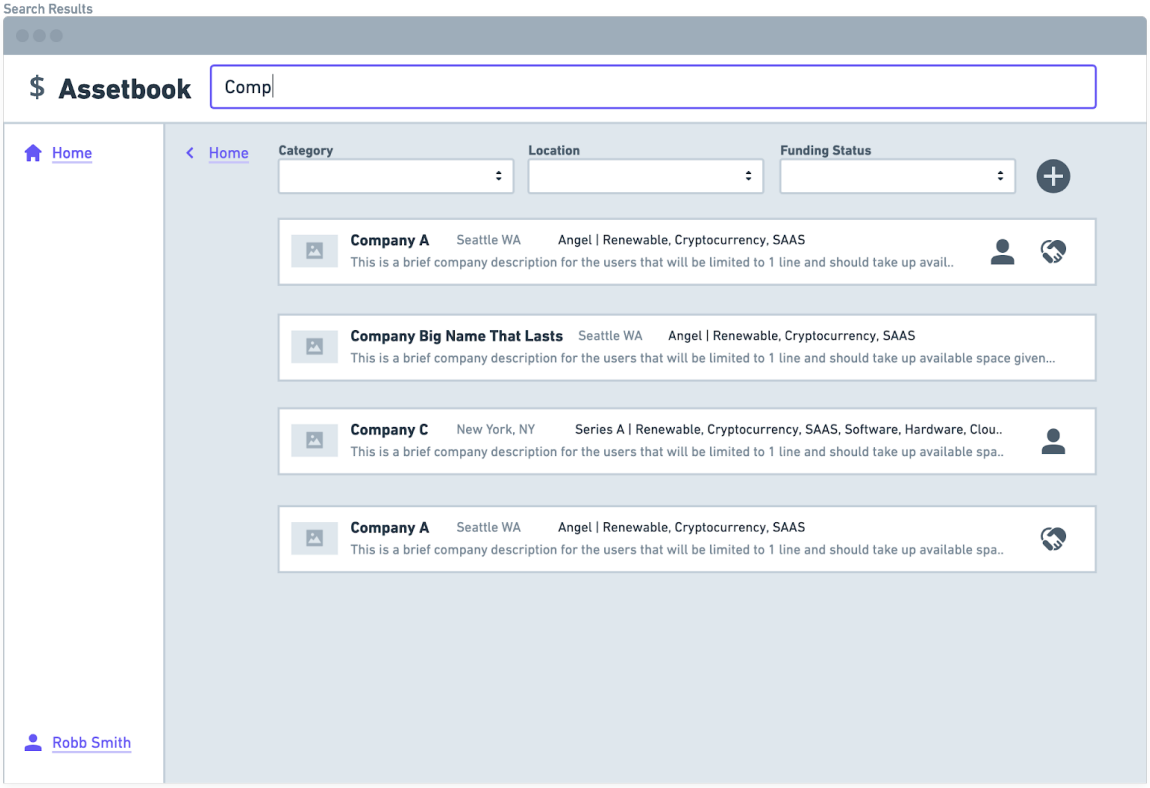
Score = Sales + Retention + Marketing + Operations - Effort

Feature	**Score**	**MoSCoW**	**Version**	**S**	**R**	**M**	**O**	**E**
Research - Companies	24	Must	V1	10	8	8	2	4
User can search and make a decision	**23**	**Must**	**V1**	10	10	5	4	6
Receive a warm introduction	23	Should	V1	8	6	7	3	1
Company profile	22	Must	V1	7	8	7	3	3
Authentication	16	Must	V1	3	4	2	10	3
Analytics product (GA, Mixpanel)	14	Must	V1	0	5	0	10	1
Compare companies	21	Should	V2	6	8	7	5	5
Follow company	18	Could	V2	5	8	4	5	4
Detailed financial disclosures	18	Could	V2	8	8	7	0	5
Schedule meeting in app	18		V2	7	8	5	2	4
Research - Web scappers	17	Could	V2	4	5	4	10	6
Free users / entitlement management	16	Should	V2	10	2	10	2	8
Research - Investors	16	Should	V2	8	6	3	2	3
Register account	15	Should	V2	8	2	7	3	5
Contact information	14	Could	V2	7	6	3	1	3
Research category blockchain	13	Should	V2	4	7	6	1	5
User profile	10	Should	V2	3	6	4	2	5
Research - International	18	Should	V3	9	7	8	1	7
Intergration - Owler	19	Could	V3	5	8	9	1	4
Companies API	18	Could	V3	8	5	8	3	6
Message contact in app	18	Could	V3	6	7	8	3	6
Advanced search	16	Should	V3	7	3	3	7	4
Search - Results organized by type	16	Could	V3	3	8	6	4	5
Research - Investors	15	Could	V3	4	4	7	2	2
User can contribute data	13	Could	V3	3	7	5	5	7
Users saved searches	11	Could	V3	3	6	4	1	3
Productize Assetbook API	13	Could		6	4	7	2	6
Community data submission	11	Could		3	5	7	3	7
Assetbook Internal CMS	9	Won't		2	1	0	10	4

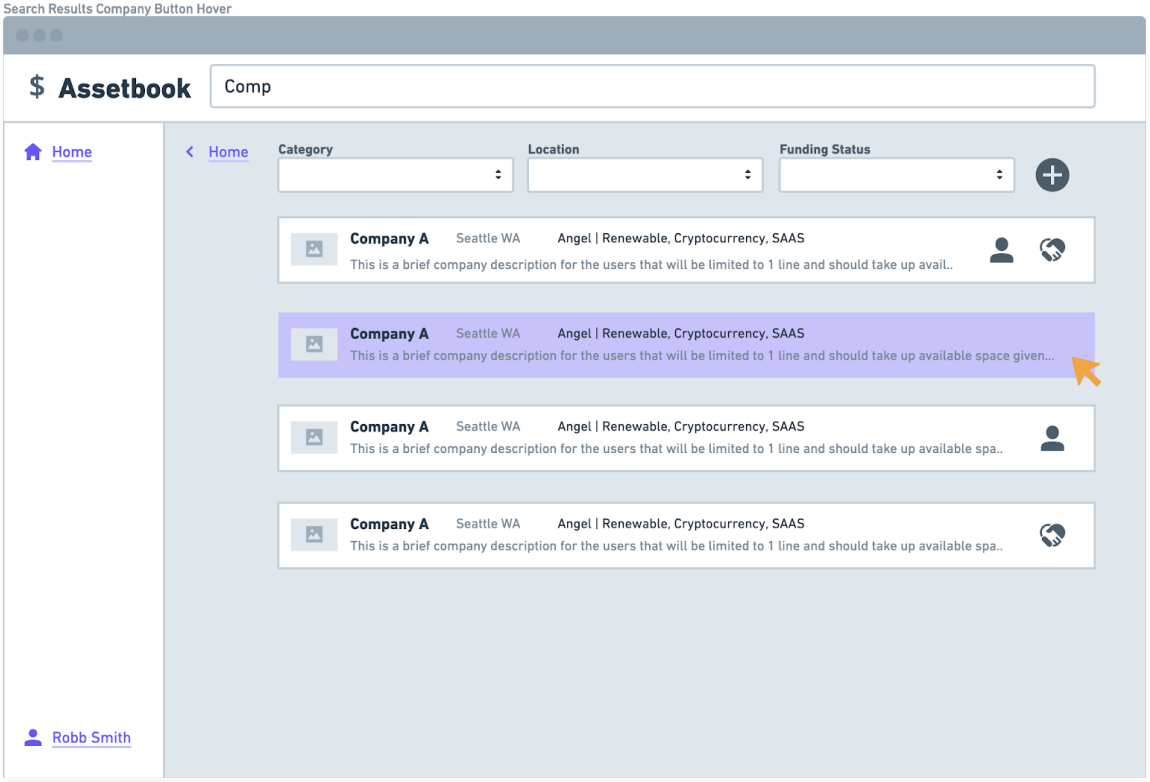
Design Wireframes

Search Results

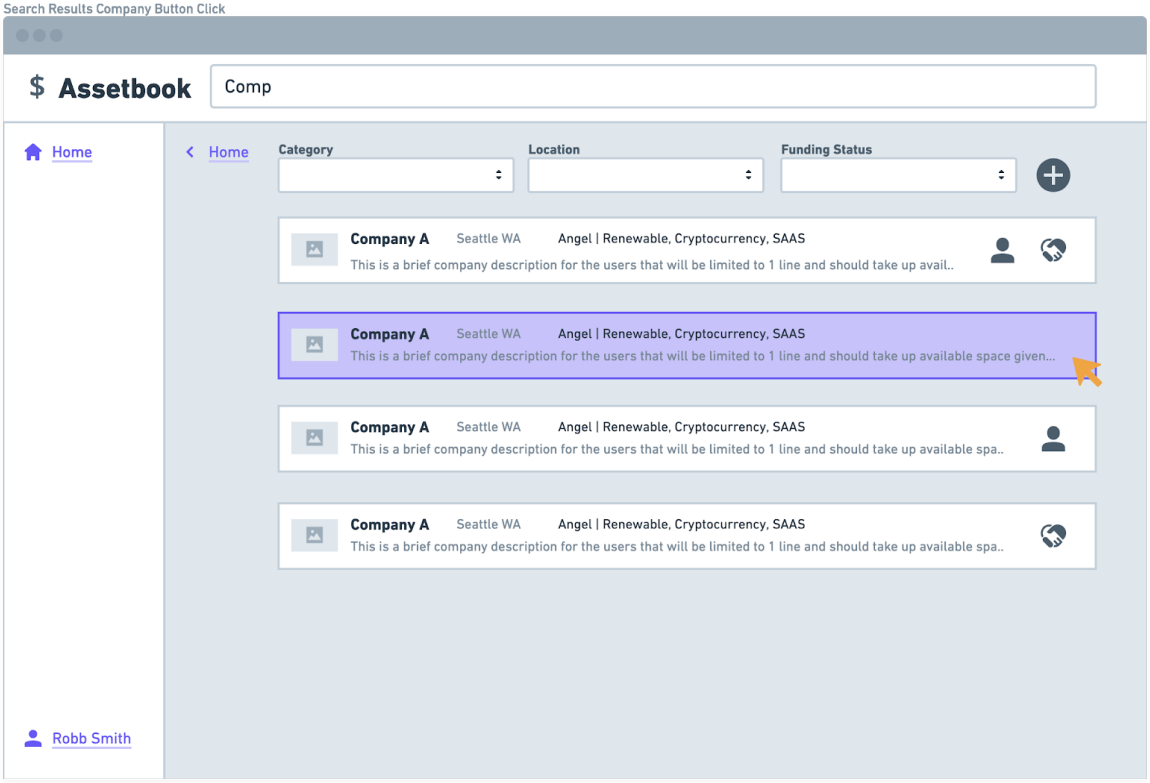
Search Results



Search Results Company Button Hover

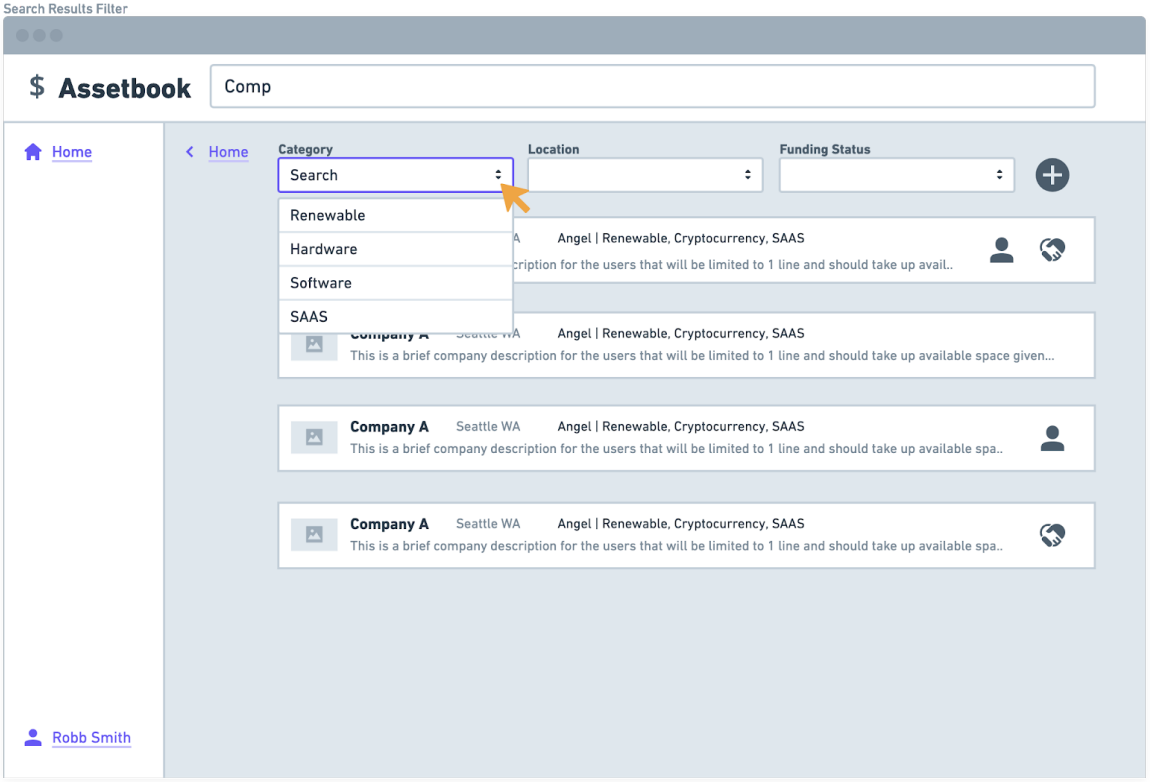


Search Results Company Button Click

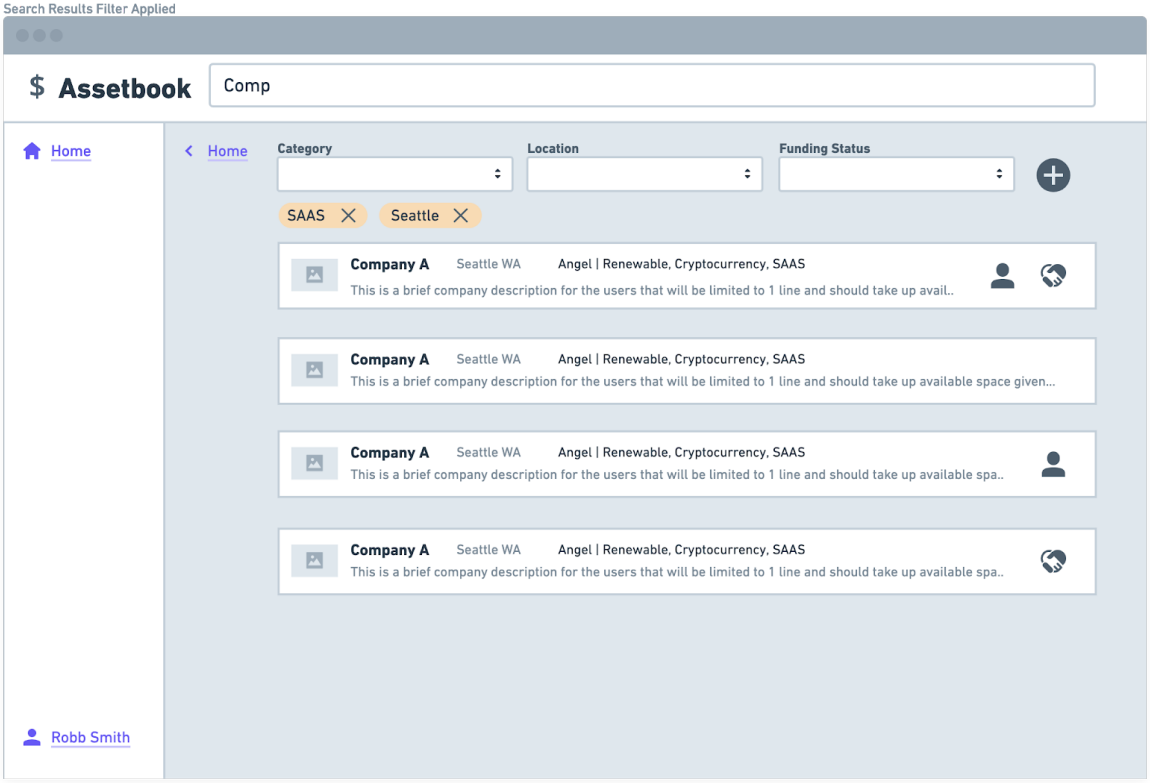


Filter

Search Results Filter

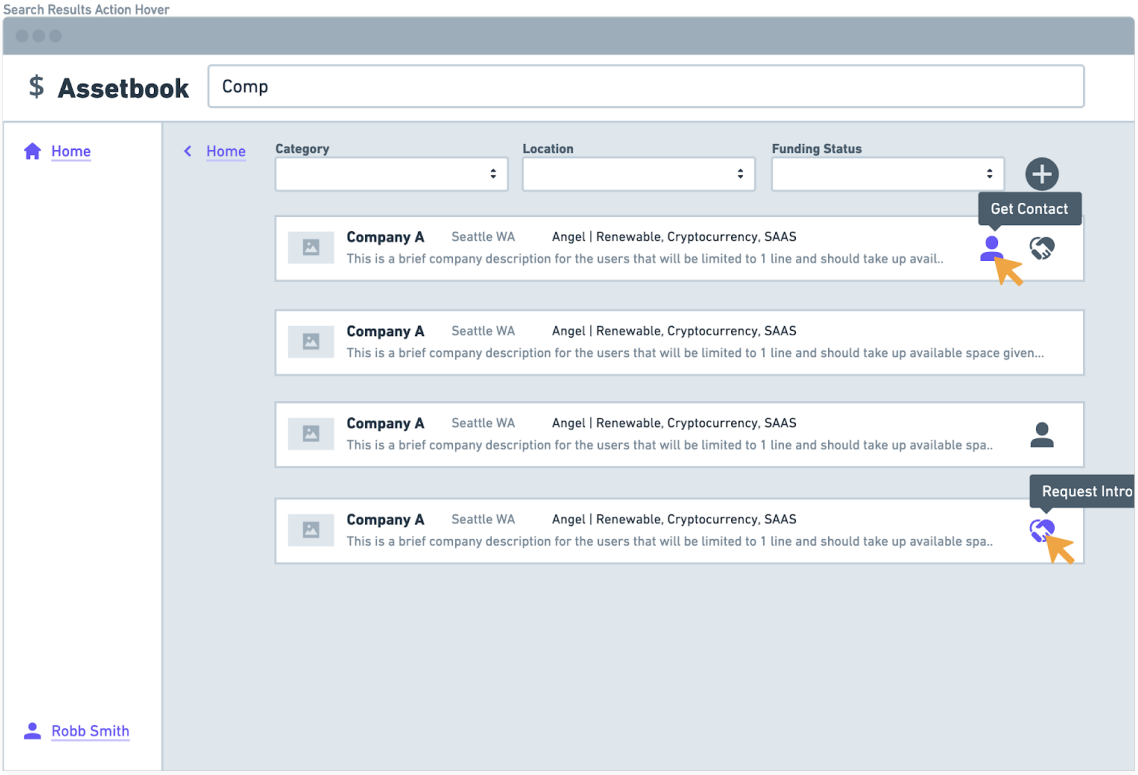


Search Results Filter Applied

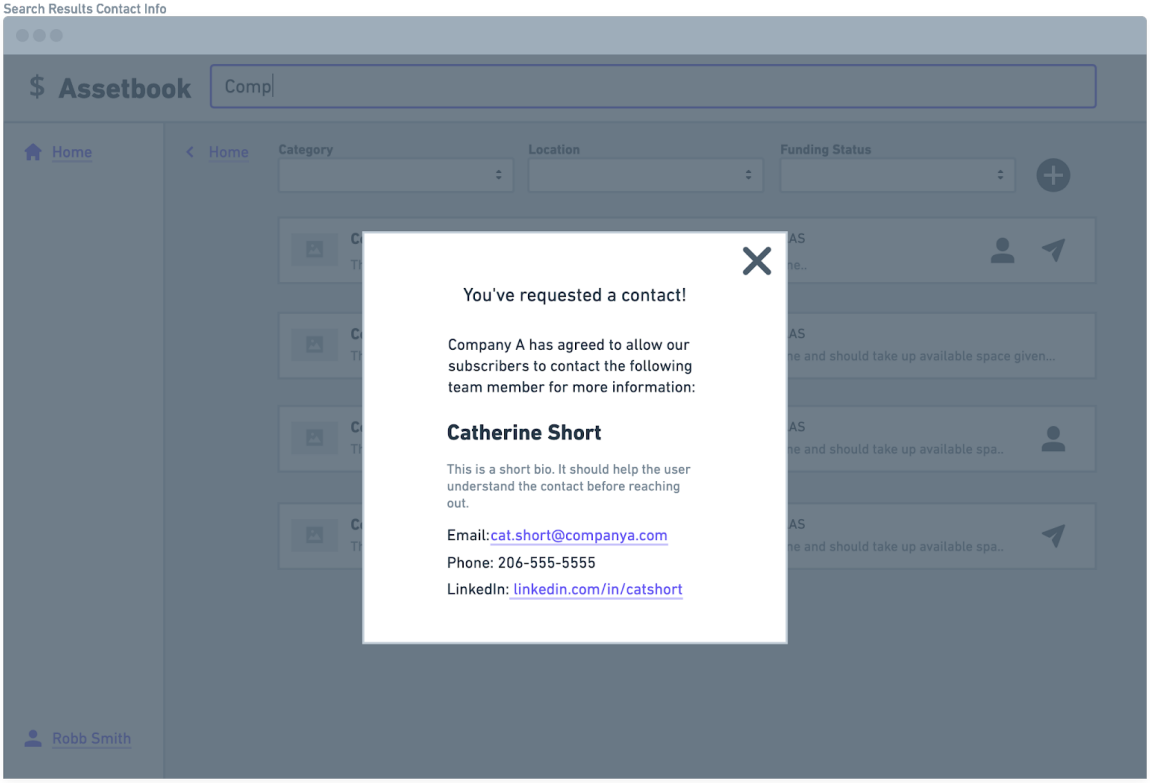


Actions

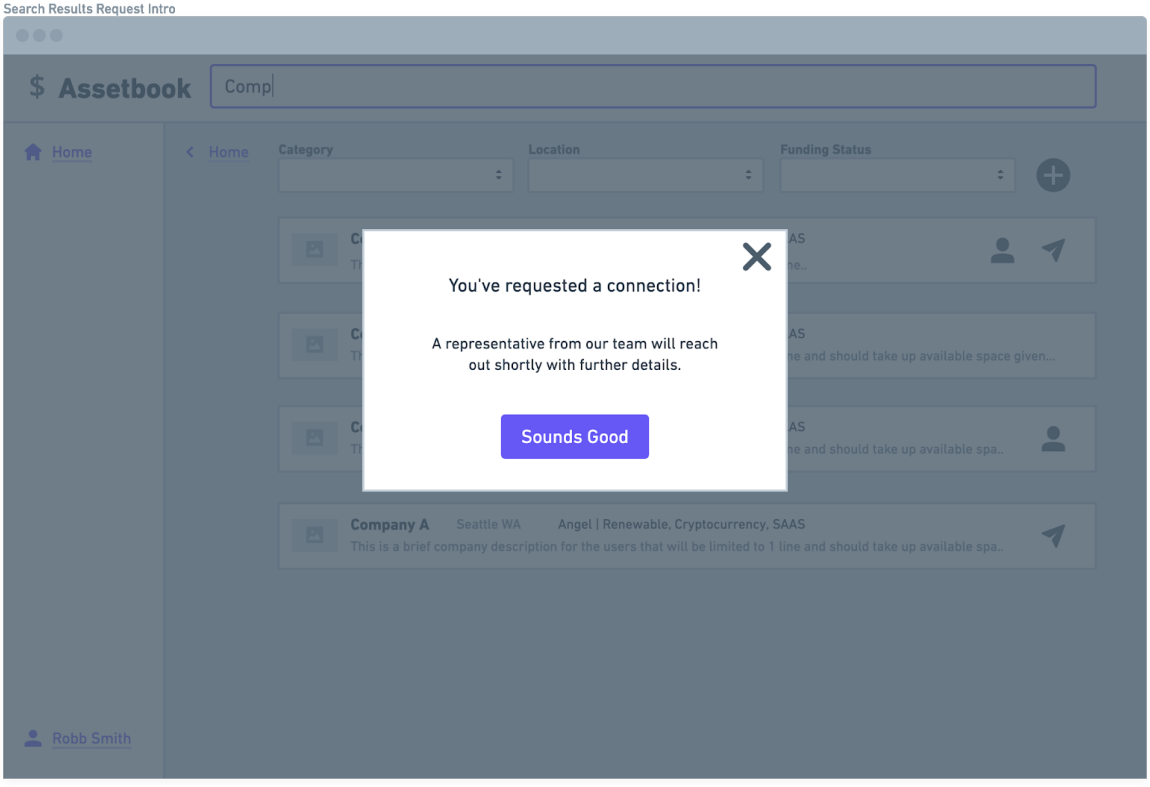
Search Results Action Hover



Search Results Contact Info

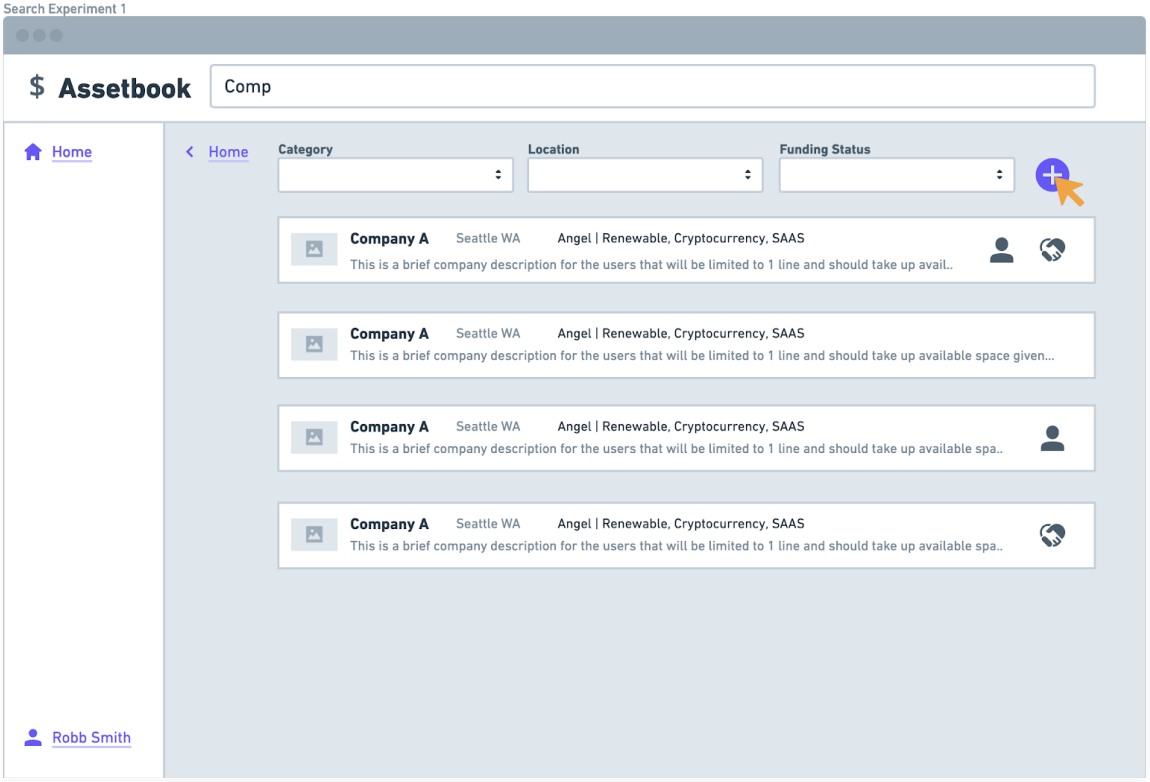


Search Results Request Intro

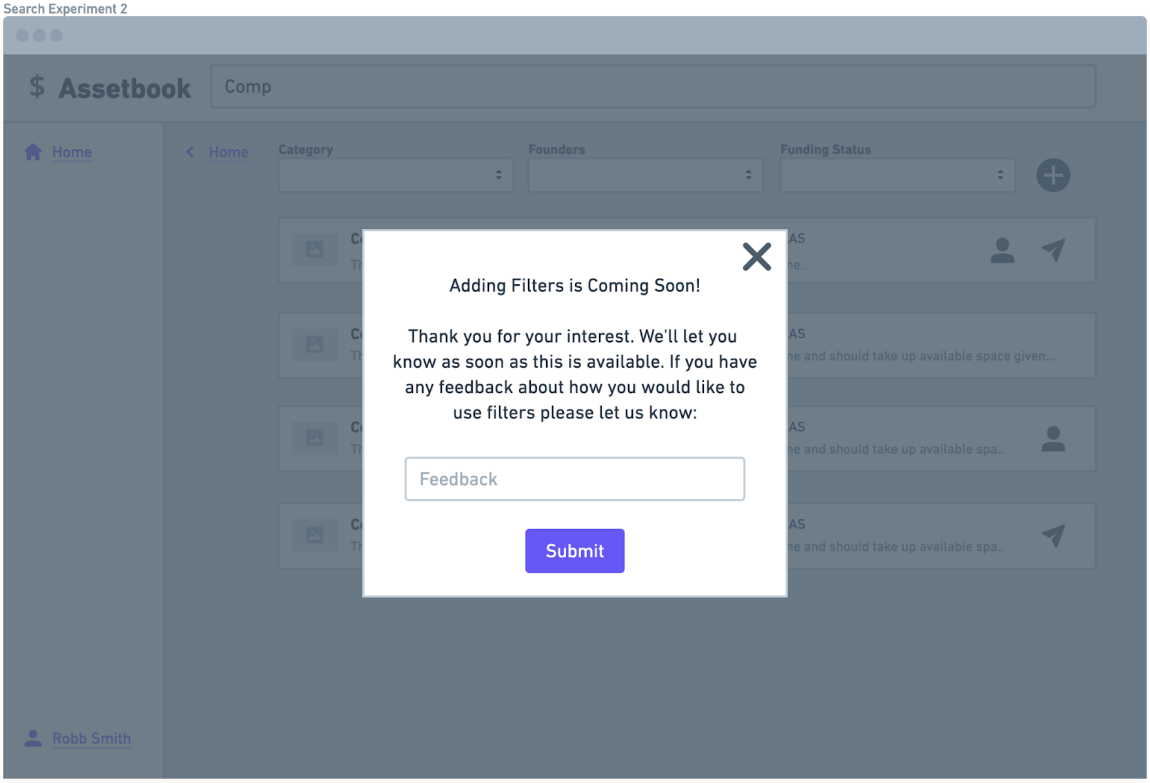


Experiment

Search Experiment 1



Search Experiment 2



Assetbook Functional Spec

Feature: Users can search and make decisions

Background

We have received feedback on our MVP that the search implementation is not sufficient for finding opportunities our users are looking for. To scope the new search feature for V1 we have interviewed our existing customers and analyzed data on user behavior from our MVP.

Planning

Overview

We will interview our MVP users to learn about why they are searching.

We will focus on identifying commonalities in user goals, motivations, frustrations, and behaviors:

- Why are they searching
- What are they searching for?
- How will searching help them achieve their goals?
- What are their hidden motivations?
- What frustrations with the current implementation, and what are their behaviors given they cannot accomplish their goals?

Learnings from the above will inform the scoping of the new Search feature.

Interview Results

"Sometimes I only know the location and the category of the company and can't recall the name"

"I'd like to search by with the name of founders."

"I want to see search results based on categories."

"I would like to be able to filter the results on location"

Analytics

Due to the limited scope and functionality of the MVP, we have limited data on user behavior. We do however have a record of all the searches made by users, even if they did not produce expected results. We pulled the records to see what kind of

data users were inputting into the search field. Although the majority of searches were based on company name the other frequently searched categories were: categories, locations, and funding status.

Conclusion

Based on the learnings from our MVP and the results from our research we will include the following in scope:

- User can search for companies across a broad index.
- Users can filter results based on category, location, and funding status.
- Users can click through to company profiles to learn more.
- Users can request an introduction from the search results page.

Feature Overview

Value Statement

For Robb and Allie who want to find companies based on related data. The new search feature is a way to search the database for companies that enable the users to find companies they are looking for. Unlike the current solution that is a basic search by company name, our solution will include a much broader index and leverage elasticsearch so that the potential inputs can be much greater and results will be more relevant.

Goals

- Learn more about why users are searching
- Learn more about what our users expect from searching
- Learn more about what our customers value and want from our service

Metrics

- 25% of searches lead to user taking action
    - Where action is defined as:
        - View company profile
        - View contact
        - Request introduction

Technical Requirements

Search Payload

The search API should return the following payload per investment opportunity:

- uuid
- name
- type
- short description
- contact info supported

        - yes/no
    - Warm introduction supported
        - yes/no

Non Functional Requirements

- Given a broadband connection service must return search results in less than 1 seconds.
- The application should be able to refresh search results in less than 1 second.

User Stories

1 - User can search the repository

As Robb I can input text into the search field to search for companies so that I can find the company I am looking for.

Comps
https://drive.google.com/open?id=1jmufGbUai7jGeUlQe23aXXvryqDT-sx4
https://drive.google.com/open?id=1uK9crYbfxvGzHZ8LUFbkaRr9lgzp2zRc
https://drive.google.com/open?id=1NqQmk18FxGPL6YwU1-lJ1B0DEEslF3yP

Acceptance Criteria

- User can select search field
- User can type in search field
    - For each key greater than or equal to 3 characters refresh search results by making a query to the search service and update results displayed on the page
- Display back button in top left corner of view
    - Previous page title displays next to back button
    - On click return user to previous page
- Display company objects
    - Logo
    - Top Line
        - Company name in full
        - Location
            - Anchor to name
        - Funding Status
            - Anchor to location
        - Categories
            - Anchor to funding status
            - Ellipse given space
    - Bottom line
        - Short Description
            - Limit 1 line, ellipse based on available space
    - On hover
        - Display with background color

        - On click
            - Display as clicked, navigate user to company profile
        - Actions
            - IF contact is enabled for company
                - Display contact button
            - IF introduction is enabled for company
                - Display introduction button
    - Limit to top 10 results given parameters
- Sort in descending order based on rank score with most relevant results displaying first

2 - User can filter based on category, location, and funding status

As Robb I can filter the search results based on category, location, and funding status so that I can only see results for a particular category

Comps
https://drive.google.com/open?id=1MVcx5238r2n3WC7n0DoHZQDoIm_upwN8
https://drive.google.com/open?id=1WLqUb3xvfKEL2yFil2uK59aNtztR05Pe

Acceptance Criteria

- On hover filter objects
    - Display search hint text in search area
- On focus of filter object
    - Focus on object, border color
    - IF user has filtered previously
        - display most recent parameters at top
    - Else user has not filtered
        - display top 4 values alphabetically
    - User can type into search
    - Limit 4 results displaying
- On selection of value
    - Refresh search query limiting based on parameter selected
    - Display selected value above research results per comp
    - User can remove filters by clicking “X” on filtered variable
        - Refresh results

3 - User can add a filter - experiment

As a PM I want users to be able to click on an ‘add filter’ button so that I can track interest in the feature and get actionable data from our users.

Comps
https://drive.google.com/open?id=1H9A_bIzWaAQNzgB52HLnmWrOoxZdIkFW

Acceptance Criteria

- Display add filter button next to funding status filter

        - On hover display hover state
- On click
    - MODAL
        - Exit button top right
        - Content
        - Feedback entry field
        - Submit button

4 - User can submit feedback - experiment

As a PM I want users to be able to provide feedback on the 'add filter' experiment so that I can track interest in the feature and get actionable data from our users.

Comps
https://drive.google.com/open?id=18gDYfl4wI2e34mTzXpD1IwY79b32UhF7

Acceptance Criteria
- User can enter text into feedback field
- User can click submit to generate an email to "feedback@assetbook.com" that contains
    - UserID
    - Feedback text

5 - User can view contact info

As Robb I can view contact info so that I can reach out to a business.

Comps
https://drive.google.com/open?id=1M1dtCqRkaBZQSVLZf02Jk6VwwkpDdoJH
https://drive.google.com/open?id=1YB9LJs28Xy4Lu9dE5EhU93pGNQfC6gPs

Acceptance Criteria
- User can click on get contact icon
- On click launch modal
    - Exit button top right
        - On click close modal return user to results
    - "You've requested a contact!"
    - "(Company Name) has agreed to allow subscribers to contact the following team member for more information:"
    - Contact_name
    - Contact_bio
    - IF email data exists
        - Email: [contact_email]
            - Mailto link
    - IF Phone data exists

        - Phone: [contact_phone]
            - Plain text
    - IF LinkedIn data exists
        - “LinkedIn: [contact_linkedin]”
            - Link

6 - User can request an introduction

As Robb I can request an introduction so that I can receive a warm introduction to a company I am interested in investing in.

Comps
https://drive.google.com/open?id=1M1dtCqRkaBZQSVLZf02Jk6VwwkpDdoJH
https://drive.google.com/open?id=1G4fqUfKL6swNIix0CwXy5tzupV5spxs3

Acceptance Criteria

- User can click on request intro button
- On click
    - Send email to support@assetbook.com
        - “[username] has requested an introduction to [company_name], please follow up with them.”
    - Launch modal
        - Exit button top right
            - On click close modal return user to results
        - “You’ve requested a connection!”
        - “A representative from our team will reach out shortly with further details”
        - CTA “Sounds Good”
            - On click close modal return user to results

Notes

Search API Requirements

Index

For each company in the database, the following values should be indexed in elasticsearch and be evaluated against the search parameters for matching.

- name
- type
- short description
- categories (array)
- funding status
- founded date
- Locations (array)
    - Street Address

                - City
                - Zip
                - State / Territory
                - Country
                - Headquarters (y/n)
            - Primary Contact
                - Name
                - Short description
                - email
                - Phone
                - Linkedin

Full Data Model

- uuid
- name
- type
- short description
- long description
- categories
- founded date
- location(s)
    - Street Address
    - City
    - Zip
    - State / Territory
    - Country
- Employee count
- Web
    - Website
    - LinkedIn
    - Twitter
    - Facebook
- Principals (array)
    - contact_n
        - name
        - role
        - email
        - Phone
        - Primary
            - Y/N
- Financials
    - Funding
        - State
        - Round(s)
            - Date
            - Name
            - Investors

            - Raised
            - Lead
        - Valuation
        - Debts
        - Funding
        - Performance
        - Investors
            - Name
- Articles (Array)
    - Article n
        - Publication
        - Title
        - Subtitle
        - Blurb
        - Date

AssetBook Business Plan

Lean Canvas | Market Analysis | Financial Plan

<table>
<tr><th>Problem</th><th>Solution</th><th>Value Prop</th><th>Unfair Advantage</th><th>Customer Segments</th></tr>
<tr><td rowspan="3">Accredited investors want to be a part of the next big thing. They want to leverage the wealth they've created to provide opportunities to worthy founders/companies. Other than founding a company themselves they are limited in capacity to 10x their wealth.</td><td>Repository of research and curated information on companies. Support contacting companies to begin a conversation around investment.</td><td rowspan="3">We will provide our customers with analysis, knowledge, and confidence to make investment decisions.</td><td>First mover in the industry addressing needs of accredited investors specifically.</td><td rowspan="3">Accredited Investors who aim to grow their wealth by investing in pre-market companies. These investors are passionate about growing opportunities for startups. They know they need to take calculated risks to grow their wealth. They believe they are capable if they have the right resources.</td></tr>
<tr><td>Key Metrics</td><td>Channels</td></tr>
<tr><td>Registrations
MAU
Attrition
Actions: Requesting contact info, scheduling meetings</td><td>Inbound marketing: publish content evaluating opportunities. Partner with content creators servicing our target market. Set up events for accredited investors.</td></tr>
<tr><td colspan="2">Cost Structure</td><td></td><td colspan="2">Revenue Streams</td></tr>
<tr><td colspan="2">Fixed costs: Team, office space
Variable costs: Cloud services</td><td></td><td colspan="2">Subscription-based access to our research and analysis.</td></tr>
</table>

Market Size	
Total	13,080,000
Target	1,308,000
Active SU Investors	370,000
Obtainable	130,800
Monetization	
Subscription	$30
Cloud Service Cost Estimate	
Avg session/user	5
Avg requests/session	1000
Monthly requests/user	5000
Cost per request	$0.0000049

% of Obtainable Market	1%	2%	3%
Monthly Active Users	**1,308**	**2,616**	**3,924**
Projected Revenue	$39,240	$78,480	$117,720
Fixed Costs			
Monthly employees	$51,666.67		
Monthly office rent	$3,000.00		
Variable Costs			
Requests given MAU	6,540,000	13,080,000	19,620,000
Monthly services costs	$32.03	$64.05	$96.08
Total Monthly Costs	$54,699	$54,731	$54,763
Net Income	-$15,459	$23,749	$62,957

Supporting Documentation & Assumptions

Overview

In order to effectively complete this assignment, I needed to make many assumptions and build out 'fake' data to inform the requested deliverables. Below is an exercise in the tools, processes, and strategies I would deploy to support decision making.

Major Assumptions

1. No one is currently providing a good solution for accredited investors (Provided by PB)
    a. Based on this I'm going to assume Crunchbase does not exist
2. Users have specified some criteria to get to the results page (Provided by PB)
3. I have some funding to put together a team.
4. My team and I have completed the following exercises and processes.
5. Accredited investors account for 4% of US population, therefore 13 million total market size.

Team

Employees	Hr Rate	Count	Yearly
Analyst / Researcher	$40.00	1	$80,000.00
Front end dev	$50.00	2	$200,000.00
Services dev	$50.00	2	$200,000.00
CEO/All the things	$40.00	1	$80,000.00
CS	$30.00	1	$60,000.00

Initial User Research

Interviews

We interviewed about 40 accredited investors. Accredited investors are a diverse category of users. Many assumptions have been made about them. Our goal was to either validate or invalidate assumptions by interviewing and observing potential users. In order to support our decisions for scoping Assetbook, we discovered and documented key motivating factors for accredited investors.

We focused on identifying commonalities in user goals, motivations, frustrations, and behaviors:

- What are the goals of accredited investors?
- Why do accredited investors want to achieve their stated goals?
- What are their hidden motivations?

- What frustrations are accredited investors experiencing, and what are their behaviors given they cannot accomplish their goals?

Learning the above supported us in defining the problems accredited investors users face when researching potential investments. These problems are the driving force behind our solution.

Interview Results

Persona “Robb”

Goals	Retire by 60 Have a building named after him.
Motivations	Wants to spend more time giving back. Wants to travel more.
Frustrations	Has been very career motivated and feels like he has missed out on a lot. Feels like he’s been missing out on great opportunities.
Behaviors	Watches a lot of CNBC Has read many investing books
Personality	Outgoing and social but doesn’t have many close friends.

Bio	**Quotes**
38 years old Male Single Lives in Bellevue Management Consultant by profession Has risen high at a leading consulting company by helping companies exceed growth expectations	*“Sarah from my days back at Company B is working at this awesome company, I want to check them out for a potential investment”* *“At a glance, I’m trying to evaluate if this is the right company I have in mind before I dive in.”* *“I know what industries I’m interested in, but not an expert at evaluating companies”* *“I’m excited by companies and products that are going to change the world, ones that will reduce emissions and make the world a better place."*

Persona “Sarah”

Goals	Double her wealth and retire early (around 55) Send his kids to private school and college
Motivations	Wants to look/feel intelligent Wants to live comfortably Wants to be excited by something

Frustrations	Lack of transparency into non-public companies and opportunities Still feels like you gotta know somebody to get ahead
Behaviors	Subscribes to the WSJ, only reads it occasionally Chats with her friends who are in finance to learn about up and coming opportunities Comments frequently on investing boards reddit.com/r/investing Has not yet taken advantage of his accredited investor status Mostly invests via Wealthfront, employer 401k, IRA rolled over from previous employers
Personality	Is very family oriented Not very social

Bio	**Quotes**
42 years old Female Married with kids Lives in Seattle Software developer by profession Worked for a fast-growing tech company that has gone public and has cashed out shares.	*"I remember an article I read about a startup doing something cool in AI and agriculture"* *"I was really inspired by this video I saw and would like to invest in companies working to solve energy problems"* *"I overheard a conversation at the party about this company out of San Diego who is doing some great things but didn't catch the name."* *"I want to find contact information so I can reach out to schedule a meeting"* *"I want to impress my investor buddies with insider knowledge and tidbits"*

Problem Statement

Accredited investors want to be a part of the next big thing. They want to leverage the wealth they've created to provide opportunities to worthy founders/companies. However most have spent time specializing in their craft: technology, healthcare, law and do not have access to valuable information to support risky investment strategies. If they could learn more about opportunities and access founders, they would be more inclined to take the invest.

Proposed Solutions

- Research repository of information on pre-market companies
- Provide contact information for users to get contact information for companies
- Provide an option for users to schedule an introduction call with a stakeholder at the company

MVP

Overview

Based on the above interviews we believed there is a market for this product. To learn more and test our assumptions we created an MVP.

Goals

- Learn more about what the client will want
- Validate key data value drivers
- Validate demand from our target market
- Validate the monetization strategy

Summary

- Defined in the Lean Startup sense
- White Glove / Behind the Curtain
- Limit investment, do things that do not scale
- Target early adopters who will just get it
- Specific category well covered
    - Green/Renewable technologies

Scope

- Repository of data
    - 50 companies we can easily source data on
        - Cost per profile (?)
    - General information: location
    - Business information: industry
    - Contact information
    - Articles
    - Financial insights
    - Build a relationship with these companies so they will trust us with their contact information and will speak with any investors we send their way.
- Tool based web application
    - Google sheet database
    - User (tool) for creating an API from a Google sheet database
    - Front end interface (using tool) for viewing/interacting with the database
    - Search

Users

- 25 handpicked accredited investors in the Seattle market (a representative sample of professions, income brackets, etc.) who will be our test users who explicitly tell us about some companies they are interested in. For their

patience and input on the product, we will research the companies for free and return results.

Hypotheses and Experiments

Overview

Based on our interviews we had some good data and ideas, we needed to test our ideas to learn if our assumptions were correct.

Assumptions

- Investors will return to our application based on the research we provide
- Investors will be motivated by getting contact information for potential investments

Tests

i. We believe accredited investors have a problem finding the information they want. We can help them with our research repository. We'll test it by tracking the number of times they log in to our MVP. We'll know we're right if at least 25% of our users return to our application at least 5 times over the 2 week testing period.

ii. We believe accredited investors have a problem taking action towards investing. We can help them by providing contact information for stakeholders at an investment company. We'll test it by tracking the number of times users request contact information for companies. We'll know we're right if at least 25% of our users request contact information for a company over a 2 week testing period.

Test Results

i. We were right, 50% of our users returned to the app at least 5 times over the two week test period. We've struck a nerve!

ii. We were wrong. Only 5% of our users requested contact information for companies. Perhaps contact information is not enough. To follow up on this we spoke to some users to find out more. Apparently most of our users are not comfortable just reaching out to the companies, however, it seems like if we were to provide a warm introduction they may be more inclined to do so, and thus derive more value. We will add this 'feature' and run another test.

Sources

https://thisweekinstartups.com/ryan-feit-seedinvest-timmu-toke-wolf3d/