

# SoluLab Mantra: From Great Idea To Successful Mobile App



How to create an app that delivers real value to your business and your users

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## Introduction:

### The Hard Part: Where to Start?

You have to build an app — because your startup's business model depends on it. Or because your enterprise users or customers or employees are clamoring for it. Or because — well, maybe you don't know exactly why. But you've got an idea for an app you're convinced will be more disruptive than Uber.

### How to avoid building the wrong app

You can learn a lot from the mistakes of others. Ever hear about the video-sharing app Color, which got a lot of buzz and VC funding but never achieved traction with users? And, at the same time, you need to remember that not every app will become WhatsApp and get acquired by Facebook for \$19 billion.

The fact is, 20 percent of apps are only used once after they're downloaded and never used again. That's an improvement over the last four years, when abandonment rates were around 26 percent. But who wants to incur the expense, time and effort of building an app people won't use?

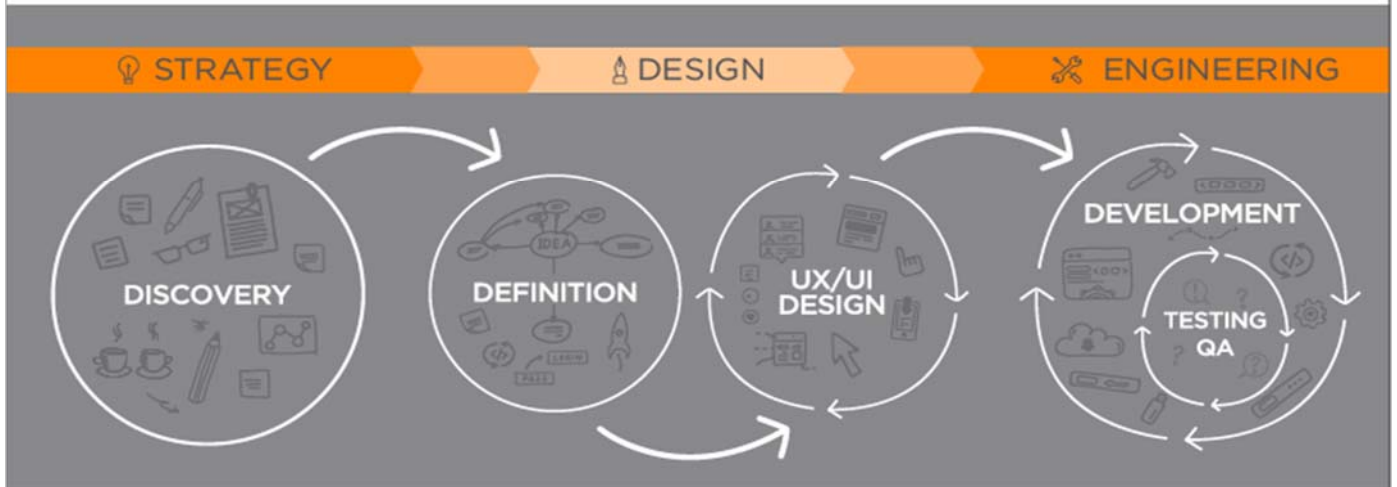
Building a successful app is a process. Here we present an end-to-end view of how SoluLab works with clients to build high-quality, well-designed mobile apps -- And, most importantly, apps that meet a genuine business need.

When we build apps for our clients, we want to make sure we address pain points and opportunities in the market. That might sound obvious, but you'd be surprised how many folks come to us blinded by a certain technology, or by the sheer brilliance of their app idea or design. We help our clients define what their idea truly could become. We help them work through ideas and create a strategy to avoid building the wrong app. Everyone on the team responsible for a given client's app — from the product manager to strategists, designers, and engineers — is expected to ask “Why are we doing it this way? Is there a better way?”

### What's the process?

All our prospective clients ask how much it's going to cost and how long it's going to take to build their app. The answer is different for each client, and depends on a number of variables. There are a few key factors to consider before building an app— primarily the issues of solving a specific problem, providing business value, and addressing customer or industry needs in a way that is functionally sound and puts the user at the center. To ensure your app ticks these boxes, it's wise to start the process of building an app by defining a strategy. So that's where we start with our phased approach to app development, before getting into design and engineering.

## 3 Phases of Successful App Development



At SoluLab, the fluid, iterative process of building an app integrates strategy, design and engineering. This ensures that each client's app has a solid business case, provides a dynamic, user-centered experience, and works as promised on its native platform.

### Part 1:

#### Strategy: Don't build anything yet

Every app should be grounded in a strategy. Sometimes, clients come to us in the Design or Engineering phases — having already defined a strategy. But at other times, the strategy was developed in haste — and a project deep into development might wind up in disarray because of misunderstanding or disagreement among stakeholders. At that point, a reset can be costly.

#### Discovery: Establishing the business case

While every application project differs slightly based on the client and a number of other variables, the Strategy phase always includes a discovery session, during which we establish assumptions everyone can agree with in three key areas:

- Your user
- Your business
- Your industry

We've seen time and again that lack of alignment can be the No. 1 reason a strategy fails to produce a successful app.

Think of your app strategy as a form of insurance. We want to work quickly to help you validate — or invalidate — assumptions so you feel confident you're building the right app.

## **Definition: Your app can't do everything — nor should it**

Many clients think they need to create an app that can do everything. But most apps should actually do a few things perfectly. Your app need not be a Swiss Army knife. If you were having steak, you'd want a sharp steak knife on the table, not a knife with a myriad of attachments.

Having a sound strategy can help you avoid building a Swiss Army knife when what you really need is a steak knife. As part of definition, we help clients determine what we call the MVP (referred to as minimum viable product in the tech eco system). An MVP is the leanest product you can build to test the assumptions established during definition.

Having a lean approach for your app is important for another reason. The fact is, what's true today in mobile won't be true tomorrow. All the more reason to build a mobile strategy through execution. So rather than trying to develop a long-term roadmap in phases, start with an MVP, execute it, get feedback from it, and let that work help you iterate into the next offering and the next app.

## **Part 2:**

### **Design: It's About Your Users, Not You**

Beauty may be in the eye of the beholder — and in the case of your app, that's not only you. It's your users, whether your app is for consumers or your enterprise's internal customers or employees. We design dynamic experiences for real people.

### **Marrying form and function**

We don't want to build apps that look great but actually have no use. So we help our clients apply user-centered design. There's a point during development when we switch our mindset from the business opportunity to the user point of view. That means understanding:

- What problem does the app solve for your users?
- How do they benefit from using your app to do it?
- What other apps or systems must the app integrate with to deliver the best user experience?

Working through ideas to get to the design of your app is an exciting and dynamic process that starts during definition, which lies at the intersection of the Strategy and Design phases.

Our goal is to keep things lean and efficient so we can move quickly without sacrificing quality or functionality. We believe in religiously marrying the digital mock ups with physical

designs. We do a lot of drawing on sticky notes and whiteboards to get ideas out in the open and work through whether they're viable. At every dynamic phase that we think our physical/mental design appears viable or cohesive to the becoming the MVP – we prepare the pertinent wireframes for the client's review.

## **Part 3:**

### **Engineering: Agility and value-accretive simplicity**

With a growing number of variables and devices — including big data, social platforms, and a panoply of homegrown and off-the-shelf enterprise back- end systems and databases — engineering an app to function for a wide range of users is more challenging than ever.

Next is building secure, high- performance links to backend systems and external services.”

#### **Why ask why?**

We train our engineers to ask why. They certainly can code your app so it does everything you want it to — but is that always the most efficient way to yield the highest-quality outcome? Part of the agile development approach is to do the simplest thing possible that delivers business value. Another positive side effect of agile development is that you can launch faster and iterate the app faster, too. This allows our clients to maximize their budget.

Throughout an app project, we constantly ask, “What drives business value?” Finding the business value is as important during the Engineering phase as it is during Strategy. In the Engineering phase, we learn a lot and things change quickly, but everything we do hinges on driving business value. To get there, we use agile methodologies as well as behavior-driven development (BDD) and test-driven development (TDD).

#### **Development with user behavior and testing at its core**

BDD is a technique used to define unit and acceptance tests that describes the desired outcome of software using a standard agile user story structure. For example, a BDD test name might be something as simple as “User wants to log in.” Because of the simplicity of the documentation, BDD is a great way to make sure engineers and business stakeholders are aligned on the expected behavior of an app.

It always comes back to the agile development credo of doing the simplest thing possible. We also use self-documenting code, which explains itself without the need of heavyweight documentation. We use meaningful names within the code itself so any engineer can understand what a code string is meant to accomplish.

TDD streamlines both engineering and quality assurance by using unit testing to validate each isolated line of code during the actual development. The idea is to try to test everything with each and every step of development. This approach embeds testing into engineering in the same way we make testing a priority in design.

### **Making plans for updates**

As any iOS or Android device user knows, the two major mobile platforms get updated regularly, which often affects mobile apps' functionality.

We offer maintenance plans to all our clients, which offer the peace of mind that we can fix key functionality in your app an OS update should break it.

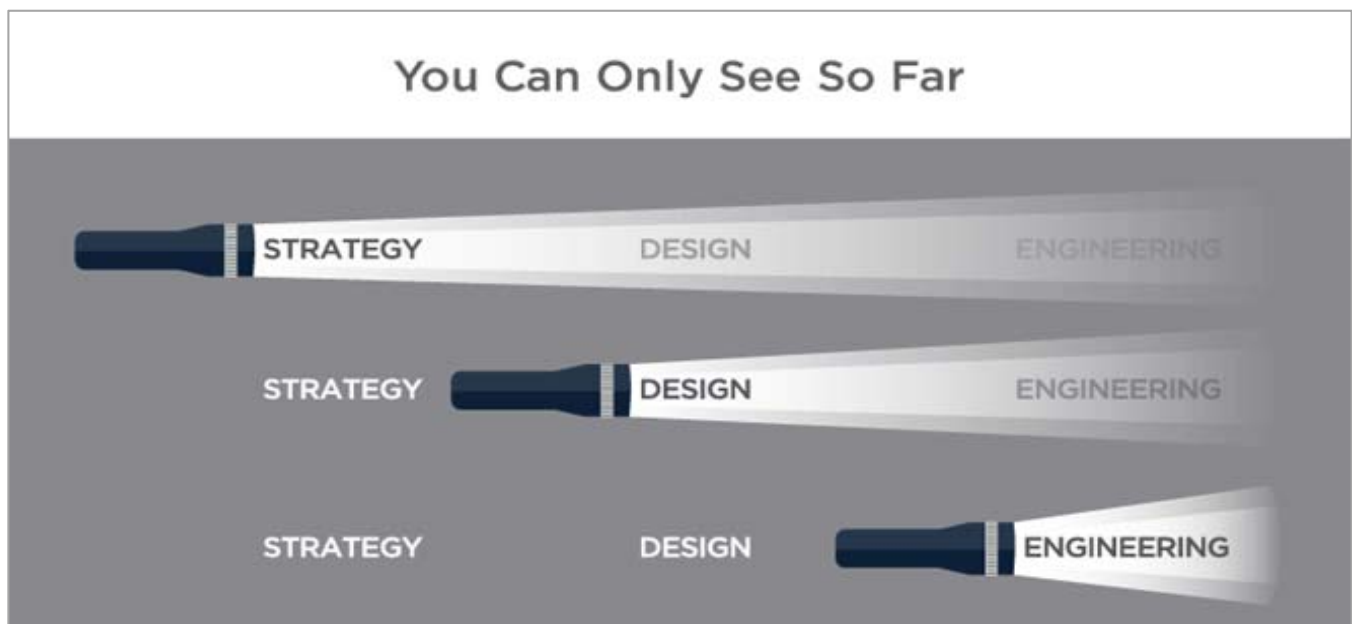
For back-end systems we develop, we can also add monitoring and maintenance to assure that they remain available at all times and responsive to app requests, regardless of the number of users.

## **Part 4:**

### **Estimating: How Much Will It Cost to Build My App?**

So, we return to the question of how much your app will cost to build. We get it all the time, and we understand why. But, as the graphic below shows, we can only see so far.

We'll be happy to tell you the cost of the broad schematics related to your project upfront, but until we finish the discovery and definition of a project, we simply won't know enough about the end deliverable to give you an accurate estimate.



Estimating the cost of building the entire app (end-to-end) and its pertinent features at an early stage is prone for error.

Remember, an app is not a website. We're not knocking websites, but because anyone with a little bit of WordPress knowledge can spit out a site these days, it has skewed the perception of what goes into building an app. People sometimes think making an app is as easy as creating a website. But as you've learned, there is a lot more that goes into creating an app than a bit of coding and web design.

A mobile app is more like a piece of enterprise software. Your app may need to only accomplish a few key objectives, from burnishing your brand to boosting revenue, to helping users get their tasks done. Akin to enterprise software, the usefulness of an app is often driven by connections to other systems — whether a backend database or a social media platform.

There are four primary variables to consider when you embark on an app development project:

- Features
- Cost
- Time
- Quality

You should weigh each one and spend a bit of time prioritizing before you begin working with an app development partner. It's a good idea to go into the project with flexibility on at least one variable — keeping in mind that features and cost have the most direct relationship to one another.

If you have a set feature requirement, you need to be open about price. And if you have a set budget, you should be open about the feature set. If time to market is a big factor, you need to be flexible on features. As for quality, at SoluLab we epitomize quality and never allow quality to take a backseat to the other variables. But we can't speak to what other app developers do.

We help clients work through and confirm how they will prioritize these variables when we are defining the MVP.



## About SoluLab

"WE BUILD APPS THAT MAKE MONEY, THAT WIN AWARDS, THAT GET FEATURED IN THE APP STORE"

At SoluLab, mobile application development is our business. SoluLab was founded with the single-minded vision of putting together an all-star team that could take a project from ideation through launch, with the agility and expertise of a top startup rather than the arthritic, fluff-ridden tendencies of a typical agency or a dev shop.

Our apps have been featured in the New York Times, Wall Street Journal, Wired, TechCrunch, Mashable, and just about every other publication you can think of. We've won our fair share of design awards, but some of our proudest achievements to date include being featured in both the Apple App Store and Google Play Store and hitting #1 on both the paid and free charts.

We eat, drink, and breathe apps, which is helpful when you're tasked with building the greatest mobile products in the world. But don't take our word for it, Here's what our customers say:

"I came to SoluLab with an idea, a tight timeline, and some difficult technology barriers. SoluLab developed an app that transformed the way our field sales teams engaged with clients. At our very first trade show where we used the app, we captured leads worth over \$1 million. Now that's ROI. I am engaging them again on another project"

■ Paul Sweeney, Partner, EduWorlds Knowledge Limited

"My project was a particularly complex project with a lot of stakeholders. It surprised me that so many of the other potential service providers were telling me how my system needed to be implemented, even though I have extensive experience in system design & development. This was not a problem with SoluLab. I have worked with some of the best tech companies in the world (notably Google and Amazon) during my very long career so I know what to look for when evaluating a technology vendor. SoluLab has done a great job in delivering a fantastic product while adhering to the scope, costs and the timeline."

■ Reg Charney, CEO, Entrebahn

"We needed to create a brand-new experience on iPad. The team worked well under a tough timeline despite several issues caused by the previous dev shop. SoluLab went above and beyond our expectations, turning our project into an engaging and entertaining experience. They hit the ground running right-of-the bat and stepped to the plate as I needed. I look forward to working with them on additional projects in the near future."

■ Terrance Carroll, Founder, myDiModa

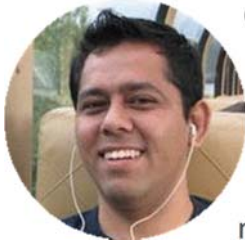
"I have been stung a few times in the past with external developers so I was a little apprehensive with this team taking on a critical project of mine, but I was pleased with SoluLab and what they provided.

It's not often I will write a review but this team deserves it. The team was very professional and provided the demo builds which I was able to test and provided the source code which is of great quality. They were an engaging and transparent partner in every step of the way. I am working with them again on another job. The ongoing project is even more complex than the previous deliverable"

■ Malcolm Flinn, CEO, Macca Studios

## Founders' profile

### Chintan Thakkar - Co-founder, Ex Vice President, Goldman Sachs, NYC



Chintan worked as vice President, Front Office Technology at Goldman Sachs. He has 10+ years of experience in global projects and team management, client engagement, and consulting in financial services & IT. He is instrumental and had repeated success building highly effective technical engineering teams. Lead on enterprise system deployments and complex system migrations at Goldman Sachs.

<https://www.linkedin.com/in/chintan7>

### Rajat Lala - Co-founder, Ex Lead Engineer, Citrix Systems



Rajat worked as lead Engineer, Mobile Apps at Citrix. Co-founder of Zuriy.com, entrepreneur and Apps enthusiast with 10+ years of product development experience. He developed several enterprise mobile apps at Citrix Systems which are downloaded and used by millions of users every day. He has proven track record of building complex software products from scratch.

<https://www.linkedin.com/in/rajatlala>

### Manish Bhagchandani – Co-founder, Strategic Investments Risk Manager at J.P. Morgan



Manish currently works as a Risk Manager at JPMorgan Chase (NYC) where he is responsible for oversight and governance of JPMorgan's Strategic investments in the FinTech space (\$10bn+ portfolio). At SoluLab, he heads the Sales & COO function to scale the company to next level. Manish is a tech enthusiast and founded his first start up at the age of 18 (YouthConnect!); a social educational network that provided students a pan-India platform to share their thoughts & best practices to secure admissions in top-notch domestic/international educational institutions. He scaled the firm successfully and sold it to a strategic buyer.

<https://www.linkedin.com/in/manish-bhagchandani-a7542b5>

## 10 Questions to Ask Any App Developer Before You Get Started

We see all too often what can go wrong in mobile app engagements when clients come to us with distressed projects. In many cases, they just didn't ask the right questions out of the gate. Here are the 10 questions you should always ask before you start a project with any mobile app design and development company.

### 1. Will I own the code?

Some app development firms offer a discount if they retain the rights to your app's code during and after a project. This is a bad idea — and should throw up a huge red flag — because if you want to make changes to your app, your developer can effectively hold you hostage, charge any rate they want for fixes, and schedule the work when it is convenient for them. Just as important, you lose intellectual property rights, which becomes problematic if your company is looking for investors or wants to be acquired.

### 2. Are there any IP considerations for the platforms that we develop?

We respect your business idea and we follow our ethics to retain complete privacy of your venture idea. At the end of our engagement cycle you are allowed to receive, customize and retain the complete source code. SoluLab grants to the Client a perpetual, non-exclusive, worldwide, non-transferable, royalty-free license to use its Pre-Existing IPs solely for Deliverables. The only right we retain is to reuse the Prebuilt IP for other implementations.

### 3. What is the engagement model?

We help you take your idea from Point A - Idea/high level business model to Point B - a market ready technology solution. You get a head start at Point A starting from our prebuilt app components and modules. We keep adding value at each stage based on our experience of what works and what doesn't, helping you avoid the classic errors & mistakes, thus increasing the probability of getting many things right in the very first iteration. Further, we don't charge for licensing our prebuilt app modules or components for any development related work.

We leverage best available tools to manage project in the most professional manner. We use Trello and BaseCamp for project management, Skype and Slack for communication, JIRA for bug tracking and BitBucket to manage code repository.

### 4. Non-Compete?

We take the privacy and IP that is associated with your business model very seriously. Other than that a Chinese wall exists between different projects/teams restricting the flow of information even if we have multiple projects ongoing within the same domain. Additionally, the fact that the front end is developed completely from scratch from designs made specifically for you helps in securing the uniqueness & integrity.

### 5. SDLC? Agile vs waterfall?

After many iterations over the 50+ projects that we have undertaken over the previous couple of years, the model that works best in our experience is a hybrid of waterfall and agile.

Under this approach the first half of the engagement concentrates on zeroing in on the specs

that go with the high level business model and simultaneously working on the wireframes and designs. The second half is dedicated to bi-weekly sprints involving coding certain parts and high level testing involving characteristics of BDD as well as TDD.

The final round of regression testing is reserved for when we already have thrown significant number of these sprints out of the park. The entire process is designed for feedback wherein you as a key stakeholder are constantly impacting the different aspects. In addition this ensures we are not constantly at each other's necks fighting scope creep.

Once we have delivered on the initial remits most of the engagements go on a retainer wherein we closely follow the agile methodology in true spirit.

#### 6. How do you test?

If someone tells you that testing means some basic QA after the app is built, you should look elsewhere. Testing should be integrated all throughout development — and ideally, it includes elements of both behavior-driven development (BDD) and test-driven development (TDD).

#### 7. Do your designers and developers know people at Apple and Google?

The answer to this question gives you an indication of how closely a firm's app developers work with the companies responsible for the major mobile platforms. Having those relationships is crucial to understanding the ever-changing landscape of mobile — and knowing about key updates to the OS that should be factored into the development of your app. We have several designers and developers that have worked at Apple & Google, amongst other companies. Further, we empower all our designers and developers to partake in at least 2 Hackathons (annually) and other forums to remain abreast with the constantly evolving tech landscape.

#### 8. If I am not happy with how a project is progressing, can I get out of the contract?

Make sure you have the ability to get out of any agreement with a development firm if you're unhappy with the work you see or with your project's progress. At any point, you should be able to take ownership of the work that's been done — including any designs and codes — and move on.

#### 9. Can I talk to three of your current customers?

Asking this question is just common sense for anyone vetting different service providers. If a mobile app developer has a hard time giving you three good references, it could be time to look elsewhere. SoluLab can give you more than three customers to speak to, if you'd like.

#### 10. What are the types of customers you work with?

We have built more than 50 apps which are live in various industry verticals and are doing excellent in terms of business, revenue and technology. We have fully satisfied client base which you can verify from our profile. We have created backbone of mobile app (Prebuilt IP) that helps us build custom experiences while ensuring that we are not spending our energy in reinventing the wheel with every idea.

“3 Phases of Successful App Development → At SoluLab, the fluid, iterative process of building an app integrates strategy, design and engineering. This ensures that each client’s app has a solid business case, provides a dynamic, user-centered experience, and works as promised on its native platform.”



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