

THE ULTIMATE BEGINNER'S GUIDE TO MAKING AN APP

HOW TO BUILD A GREAT APP
EVEN IF YOU CAN'T CODE

PRESENTED BY:
Your CTO



A step-by-step guide to making an app: from idea to the app store



Tips to make sure you are well prepared and won't get taken advantage of



Bonus guide on how to market your app and get users



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ABOUT THE AUTHORS



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David oversees YourCTO's business operations, client relationships, and project management. He has extensive experience working on software development and strategy with startup companies, individuals, and nonprofit organizations. He has overseen a wide range of small and large scale projects including mobile applications, web applications, B2B and B2C products, and web design. He also advises corporate, individual, and nonprofit clients on strategy, program design, web design, fundraising, and communications. David specializes in working with non-technical entrepreneurs, and is passionate about helping people understand how the software development

process works and bringing their ideas to life in an affordable, transparent, and sustainable way.

Prior to starting YourCTO, David conceptualized, created and served as executive producer of a reality television show in India and Pakistan that featured young entrepreneurs pitching startup business ideas to a cross-border panel of investors. As part of this effort, he successfully raised funding, recruited talent, built a trilateral partnership, and negotiated broadcast deals with CNBC India, India's most viewed English language business network, and GEO TV, Pakistan's then-leading cable entertainment network.

From 2009-2014, David served as the Director of the Young Atlanticist (now called the Millennium Fellowship Program) program at the Atlantic Council, a foreign policy think tank – where he was named the youngest Director in the Council's 50+ year history. In that role he raised over \$3.5 million in seed funding from government, foundation, corporate, and individual donors, and launched large scale initiatives with strategic partners including the US State Department, the European Union, NATO, the Robert Bosch Stiftung, the Allianz Foundation of North America, and many others.

Prior to joining the Council David worked as the Communications Director on five political campaigns, including work on statewide electoral races in two key battleground states. His last position in electoral politics was working in political outreach at the 2008 Presidential Inaugural Committee, which oversaw the first inauguration of President Barack Obama.

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ABOUT THE AUTHORS



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Shubhanan oversees YourCTO's technology operations, including strategy, innovation, planning, and implementation. He has over 15 years of experience in building and managing technology solutions for a wide variety of applications. His work has ranged from startup projects to massive solutions servicing over one million users. He has delivered scalable B2B, B2C and white-label solutions, native Android, iPhone, and hybrid mobile applications, and a wide range of other software solutions in the startup, e-commerce, healthcare, real estate, manufacturing, education, and defense sectors. Prior to starting YourCTO, Shubhanan founded Beacon Tech Labs, which provided

innovative technology solutions and strategic consulting to a wide range of corporate clients, primarily in the education and e-commerce spaces. Before starting Beacon, Shubhanan worked at the Ohio State University Medical Center, where he designed a reusable technology solution to help aid the work of cancer researchers. Before joining Ohio State, he worked as a part of the Yahoo! Search team, where he helped with monetized solutions facing over a million users. He has also worked as part of the Stem Network initiative undertaken by BHEF (a group of Fortune 500 leaders) and Raytheon, Inc.

Shubhanan is adept at global team management, strategic planning and roadmaps and overall technology architecture and delivery. He has built and managed technology teams for a diverse set of organizations, and has managed teams of 25+ members across functions and geographies. He has helped a variety of startups in their concept-to-product journey, and knows very well the challenges that early stage entrepreneurs are faced with.

Shubhanan is a proud Buckeye; he did his dissertation on Knowledge-based Cyberinfrastructures and received his Master of Science (M.S.) degree in Computer Science at The Ohio State University (Columbus OH). Prior to that, he received his Bachelors in Computer Science from College of Engineering, Pune. Shubhanan enjoys brainstorming and exploring new possibilities to make people's lives easier. He is passionate about helping people who want to bring their ideas to life, and make their mark in the world.

Note From The Authors

Thank you so much for downloading this guide. Our hope is to help you better understand how the app development process works, so that you are better equipped to pursue your ideas in an efficient and cost-effective manner.

We started YourCTO precisely to help people without a software background pursue their app ideas. We've been in your shoes before – so we understand that the prospect can be both exciting and a bit overwhelming.

The good news is that you can definitely make your idea into a reality, even without a coding background or technical co-founder. This guide will help you learn more about how to do this.

We want you to have every chance of success, whether you work with us or someone else. If at any point you are interested in discussing your idea, we would welcome you to contact us at contact@yourcto.co. One of us will personally reach out to set up a time to speak.

Best,

David & Shubhanan

Founders, YourCTO

HAVE AN APP IDEA?

WHERE TO START



FIRSTLY CONGRATULATIONS!

It's exciting when you land on an idea that you're passionate about. Whether or not you know how to code – you can build your idea, with the right help.

Before jumping right into hiring someone to build your app, there are some things you can do on your own. First, think in detail about the idea:

- What problem are we solving?
- Who would use this?
- Why would using this be easier than using something else?
- What else is out there that does this?

Refine the idea to make sure you answer these questions. Research what else is out there, and have an understanding of how you'd want to do things similarly or differently. Don't worry if you find other things very similar to your idea – this almost always happens. The question is do you have a plan to make a solution better/easier for users?

Now, before we get into anything to do with coding, let's talk about some first steps you may want to take before even exploring that side of things. Here are four things to think about before deciding if you want to build your app.

DEFINING THE IDEA

The more clarity you have about what your app will do, the easier the development process is going to be. We always encourage clients to start by thinking through the big picture.

- What is the app for?
- Who will use it?
- What problem will it solve for them?
- How will it do this?

The idea here is to refine the broad concept into the simplest terms. We need to outline the “what” and “how.” Part of the reason to do this is to make sure the idea is simple, and relatable. This is important to make sure that the concept will be something that users can understand.

Here are some questions to ask yourself:

- 1) What problem is your app solving?
- 2) Who are the potential users of the app?
- 3) How does it help users solve this problem?
- 4) How would you describe your app to a user in one sentence?
- 5) What is your business model?

If you have trouble answering these questions, that may be a red flag. Your app idea needs to have a clear purpose and value proposition before you're ready to work with someone to build it. If you don't have this clarity, you're going to have problems in the development process.

COMPETITION RESEARCH

Once you've got the basic concept down, it's smart to research what else it out there. There is an old saying that “there's no such thing as a new idea.” While this isn't always the case – it is often true. You are probably going to find other apps that are similar. A lot of people feel discouraged if they find other similar apps – but in reality you shouldn't feel that way at all. Competition is a healthy thing, and there are a lot of companies that do the same thing. That doesn't mean that a new company can't enter the market.

Let's use Facebook as an example. Sure, today it is a behemoth and the dominant social media company. So was MySpace, back when Facebook first launched. And you probably don't even remember Friendster, which owned the space even before MySpace. The point is that a new idea can always compete if it is executed well. You don't have to be the first one to try an idea, you just need to do something a bit better, or bring a slightly unique twist to the equation.

Think about it this way – if a store in one city makes amazing bread, does that mean that another store can't start making bread and have success? Of course not! It means that the other store needs to have something that connects with customers and a plan to build its business. The solution may be to locate the shop in a different part of town. Or to make a slightly different kind of bread. Or to open at different hours. There is always plenty of space for different versions of similar products, and the ones that are good will make it.

Going back to the Facebook example, when they first started, MySpace was already the most popular social networking site. In its early days, Facebook decided to target a specific subset of the potential user audience – college students. You may not remember, but originally you needed to have a .edu email to sign up for Facebook. This strategy helped them corner a specific user base – students - they grew from there and the rest is history. Apps are the same way. Execution and business strategy are going to be just as important as the idea itself.

It's important to know what else is out there, because you want to plan accordingly. In doing research we recommend paying close attention to the following:

- What has worked, and what hasn't worked with similar apps.
- What are users saying in their reviews?
- What problems are they having?
- What features do they like?
- What is the business model?
 - Are they charging for subscriptions?
 - Are they offering in-app purchases?
- How many downloads do they have?

We recommend that you download any competing apps and check them out. Do you like them? Are they missing features that you would like to have? How do you like the design? Is it easy to use?

If you decide to pursue your app idea, this research will be helpful. You'll have a better idea of how similar technologies work. You'll have some ideas

about what improvements could be made. You may even have an idea of features that people seem to want, but don't have in the other apps. These are all great things to consider as you start planning.

Your idea can be similar to others – that is not a problem at all. The key is thinking about how you can deliver a very helpful service. You want your app to be intuitive, easy to use, and engaging. If the problem that you want to solve still exists – there is still room for your idea! Let's make it and make it better.

PEER FEEDBACK

It's always good to have a second opinion from people you know and trust. We definitely recommend doing your own little focus group by asking friends and family for feedback on your idea. Ask them to be honest, and to give you general feedback as well as new ideas.

For example, if your idea is an app to help students study more efficiently – try to find 10 students and describe the idea to them. Ask if this is something that they would use. Ask them if there are any other features that they would find helpful.

START THINKING ABOUT YOUR REVENUE MODEL

If you're looking to make an app as a for-profit venture, it's important to start researching how apps make money. We definitely recommend researching various revenue models, and what has been successful with other companies.

There isn't a one-size-fits-all formula for the best way to monetize an app. It depends on your goals, your target market, your budget needs, and much more. However, which method you choose will impact the way you build the technology – so it is good to start thinking about this now.

To help guide your research – here are some very basic overviews of revenue models.

- 1) **Freemium:** many apps are free to download, but also have a premium subscription that you can pay for in exchange for accessing enhanced features. Dating apps commonly do this by offering premium subscriptions that unlock features like unlimited swipes, the ability to see who has liked your profile, and more.
- 2) **In-app purchasing:** Many apps are free to use but offer goods and services in the app which you can buy. For example, a mobile app game may let users play 5 games each day for free. If users want to play more, they could have the option to buy tokens, which in turn would give them more turns.
- 3) **Subscription:** many apps have a simple subscription model – they charge users a monthly or annual fee to access the app.
- 4) **One-time download fee:** some apps charge a one-time fee to download, and are then free to use, or go on to also offer in-app purchases.
- 5) **Advertising:** many apps show display ads to their users. Typically, the app owner will get small amounts of money for each time that a user clicks on an ad.

Thinking about the four things listed in this article will help you refine your idea. This puts you in a much better position to start pursuing it. The next step is to learn the basics of how app development works. 

I DON'T KNOW HOW TO CODE

WHAT ARE MY OPTIONS?



Oftentimes, first-time or non-technical entrepreneurs who have a business idea that requires software or app development, believe that as a first step they need to find a technical co-founder, hire a CTO (Chief Technology Officer), or hire a full time technology team. In theory this makes sense, but in reality it is not always easy, affordable, or even advisable.

WHAT DOES A CTO DO?

Firstly, it's important to understand the CTO role. A CTO is not just a software developer, but rather the person who will set the strategy for your technology, hire and manage the team that will build it, and oversee the development effort. This is a critical role for any company that is making technology products, but it is a role that isn't always necessary or viable in the early days.

DO I NEED A CTO?

If you are just starting out, and particularly if you don't have investors or a lot of money on hand, it probably doesn't make sense to try to hire a CTO. The first thing you need to do is to produce a basic working version of your software or app idea (a minimal viable product or MVP), and get it out to test users to validate your idea. To get to this stage, you don't actually need to hire a CTO, and it is much cheaper and more efficient not to.

HOW CAN I GET STARTED WITHOUT A CTO?

So how do you find someone to build your app? There are several ways, below is a list of some of the more viable ones.

HIRING A SOFTWARE DEVELOPER

Hiring a software developer (but not CTO) directly is another option. There are many ways to look for independent software developers – asking people in your network if they know anyone, posting jobs on freelancer websites like www.upwork.com, searching on Google, and calling local schools which have software engineering programs and asking if any students or recent graduates are looking for opportunities.

However, this approach can come with some risks, and it's important to keep these in mind to avoid making mistakes. Here are some issues to consider:

- If you don't have a software background, you may not be able to effectively vet a software developer, making it hard to tell if someone knows their stuff or not. If you are hiring a developer directly, definitely try to find someone who does have a technical background and ask if they would help you vet candidates.
- Projects can quickly go over budget if working on an hourly or monthly rate. When you start making a software product or app, what may seem like simple changes can actually cost a lot – sometimes a simple change requires going back and rebuilding a lot of things. We advise seeking favorable contract terms, which anticipate changes to the software plan and how those will be dealt with. That way any future misunderstandings won't hold up your work.
- Communication can be difficult. Software developers tend to think in a scientific way, and are not typically known for having strong interpersonal communication skills. This means that it is important to make sure, at every step, that what you have in mind and what the developer understands are the same – this can be surprisingly tricky.
- Putting all of your eggs in one basket. If you hire an individual, there is always a chance that something happens that could jeopardize the project. They may end up busy with other projects, and might have pressure from other projects that lead to yours becoming less of a priority. If something happens in their life, such as getting a new job, moving, or some kind of life change that requires their focus, you may be out of luck.

USE PLUG AND PLAY TECHNOLOGIES TO BUILD YOUR OWN APP

There are a number of new tools out there designed to make it easy for non-technical entrepreneurs to make a basic mobile app using a point-and-click interface. These can be a great option for some ideas, but also come with limitations. The primary issue to consider here is that these technologies are typically very limited – if your idea fits into the features they offer, wonderful! If, though, you find yourself modifying key elements of your idea in order to fit it into an app builder tool, you might be compromising on a key element that would otherwise distinguish your app and make you stand out to customers. You may also find that apps built in these technologies are harder to scale – because they are designed in a one-size-fits-all approach, rather than specifically designed with your business goals in mind. Just keep this in mind as you look at these options.

HIRE A SOFTWARE DEVELOPMENT COMPANY

Software development companies typically provide more assurances and resources than the other options – but they also come in all shapes, sizes, and levels of reliability. They are also often motivated by profit, and accordingly will often seek to add work for the sake of billing for it, even if that work doesn't make sense for your project. If you don't have technical expertise, it's important to keep this in mind as you look for companies and try to factor this into any contract.

One way to gain confidence in a company is to ask for a free consultation (feel free to ask them to sign a non-disclosure agreement so that they are legally prohibited from taking your idea and building it themselves or for other clients), and see how the company approaches this. If they just listen, and tell you that everything is great, they can do it all, etc. – this is a potential red flag. If they listen, ask insightful questions, clearly lay out their process, and offer some ideas that could benefit your idea or save time and money – then they are more likely to have an ethos of partnership rather than a goal of extracting as much money as they can from a project.

OVERVIEW

As a general rule, no matter which direction you take, it is important that you feel comfortable with whoever is going to build the software for you. Having a partner that will give honest feedback is key. You need to hear what is best for you, not what approach will create the most work and billable hours. Communication is also hugely important – it's vital that you and your software partner always understand each other.

If a software developer or company tells you right away that everything in your idea is perfect and should be built right away – the chances are they are looking to build the scope of the project as much as possible in order to generate more income.

We recommend talking to a variety of potential partners and comparing your impressions of each before making a decision. Things that we think are good signs:

- They understand your idea and the market you want to go after
- They provide ideas for how to simplify the project, or cut elements that may not be critical to building an MVP
- You have a good rapport with the project manager that you would be working on for your MVP
- An executive team member is personally involved in your project
- You understand the approach they recommend, and the terms and pricing are transparent and simple 

8 THINGS TO ASK WHEN

INTERVIEWING A SOFTWARE PARTNER



There are certain questions you can ask when talking to a software developer or company that will help make sure that everyone is on the same page. Ultimately, the most important part of your decision should come down to how much you feel you can trust and depend on the developer or company you are considering. Here are eight things you can discuss with potential partners to get a better idea of what they might be like to work with.

- 1) **Ask for a non-disclosure agreement** prior to disclosing your idea. Any reliable and professional software outfit will have a standard non-disclosure form (NDA) and be happy to sign one before a consultation. A NDA basically states that the information you share is confidential, and cannot be shared with anyone else. This kind of thing does not cover basic, existing technologies – but rather the comprehensive nature of your idea, your branding, and any documentation or materials you send across. So, if, for example, your idea is to make a food delivery app – the NDA does not mean that the company or developer can't make another food delivery app – it means that they will not share your specific plan with anyone else. The reality is that NDAs are more about peace of mind and trust, than anything else. Software developers very rarely steal an idea – that's not their business. But signing an NDA is a good sign of trust, and a good basis on which to build a productive relationship.
- 2) **Ask to make a detailed requirements list.** Requirements are the individual features and functions in an app. If a company or developer doesn't suggest making a requirements list before giving you a price estimate – run away! They are likely selling you a bill of goods. Proactively asking them for a requirements list will show them that you have some knowledge of how the app development process works, and what they put together will show you how much detail and effort they put in. Did they really understand your idea? This can be a great way to compare potential development partners, and also to test how good the communication flow is.

- 3) **Ask about a fixed price contract.** We're big fans of this pricing model, because it avoids miscommunications and broken expectations. It also gives the client a level of security and confidence in the big investment that they are making. Some places just don't work on this model – which doesn't mean they aren't trustworthy, but it is good to ask about and we recommend going this direction if you can. One cautionary note – the way that fixed price development works is that the price is tied to a specific requirements list. So make sure that you and the developer mutually agree to a final list before agreeing to a contract, and also keep in mind that if you ask for changes to that list later, there will be extra costs.
- 4) **Ask about unforeseen changes to requirements and what the process is.** Sometimes you'll start work and realize, for one reason or another, that there is an additional feature you really need but which wasn't included in the requirements. This happens all the time. The important thing to ask about is how this type of situation is dealt with if it comes up. Make sure that the developer has a clear process in place to price out additional work, and that they will never do additional work and charge you for it without first giving you the price and getting your permission to do it.
- 5) **Test their creativity.** A good development partner will not just do exactly what you tell them, but offer creative ideas that can improve your app. We always recommend asking potential partners if they have any ideas about your app idea that might make it better, or more cost effective. We always recommend avoiding yes men – if they have no ideas to contribute, it may be a red flag.
- 6) **Ask about what technology they will use and why.** Some companies only focus on using specific technologies, and at times they try to push clients to use those even if it isn't the best option for the specific project at hand. Ask for an explanation of the technology stack that they recommend, and why they recommend it.

- 7) **Ask about scalability.** The last thing in the world that you want to do is build something that can't grow, or scale, to meet your future plans. Ask the developer how they will make sure that your app will be designed in a way so that it can continue to grow with your business in the future.

- 8) **Make sure you own the idea.** Your idea is your intellectual property, and it's important to make sure that you own the IP worldwide and forever. Make sure that the developer is fine with this arrangement, and also make sure that they won't use any technologies in the development process that may open you to claims from other companies.

WHERE DOES YourCTO FIT IN?

We started YourCTO because one of our founders faced a similar dilemma to what you might be facing. He had an idea for a software product, some money to spend on developing the idea, but no clue how to make software or vet and find a reliable technology team. In his case, he was lucky to get some good advice early on, urging him not to hire a CTO right away. He ended up hiring an individual developer to start, then moved to a small company when he needed to build out the product more – and finally, after some time realized he did need a CTO, and at that point was able to find a great person to fill this role.

Our philosophy is very simple – we want to help people realize their ideas. We aren't in this to get rich, or empty your bank account – but rather to help make your idea a reality, and to do so in an affordable way. We pride ourselves on providing clients with honest advice and making sure they understand the software development process well before we even get started. If we aren't the right fit – we'll tell you. If we think you could scale back your idea and save a lot of money – we'll tell you. At the very least, we're always happy to provide a free consultation that will help you learn more about the software development process in general – whether or not you decide to work with us we want to help equip you with the knowledge to find the best solution for you. If you want to schedule a free consultation with one of our founders you can always email us at contact@yourcto.co 



A BASIC OVERVIEW OF

HOW APP DEVELOPMENT WORKS

If you're not a coder, or don't have a partner who is, it's really important to understand the basics of the app development process. This is so that you won't get taken advantage of. This section is designed to help you understand the process.

Making an app is a lot like building a house. When you build a house, the first step is to lay down the foundation. Let's say we plan a basement which will have four rooms, one bathroom, and two windows. Once we've decided on those basics, we build the basement. Once we've done this, we build the first floor on top of it. Then we build the second floor, and so on.

Now let's say we've build two floors on top of the basement, and then realize we want to make one change. We want to have a fifth room in the basement. It may seem like this is a minor thing – that we just add some walls and a door. However, it is often much more complicated than that. In reality, we may have to tear down the work we've done on the second floor, and then the first floor, and then the basement, and start from scratch.

While this is an oversimplification, it is a good analogy for how building an app works. It is critically important to map out the foundation of what the app will be. Otherwise, you can find yourself having to rebuild big parts of the app to make what, to a non-coder, seems like it would be a simple change.

As an example – let's say you build a registration/login page. You detail all the steps, and then move on to building the rest of your app. A few weeks later, you realize that you forgot to add a “forgot password” feature on the registration page. While this may seem super simple, it's actually not. To add this, we need to think through the logic. What happens when a user clicks on “forgot password?” Does the app send a recovery email to the user's email address? Does the user need to confirm that they have received the email? Does the app automatically generate a temporary password and email it to the user? Does the app ask the user to confirm security questions before letting them enter a new password? Each one of these features requires additional development, and for the rest of the code to be integrated with these steps. The result is that going back and adding this later can be a lot of work, and require tearing down what we've already built and starting over. This can lead to delays and increased costs – precisely what we want to avoid.

The best way to avoid scenarios like this is to start off by making an extremely detailed list of everything that will go in the app. **This is called listing the requirements.**

REQUIREMENTS - THE BLUEPRINT FOR YOUR APP IDEA

The requirements are a detailed list of all the components you want in your app or software. The initial draft should include anything that you may want to include, in one place. If you might want something in the app in the future, this is the time to include it in the plans. The reason for that is that the initial app build, even if it doesn't include every feature (and it probably shouldn't – check out the section on Minimal Viable Product for more on that), it's important to factor in where the app may go in the future, to make sure that the way it is set up now is able to scale in a seamless way rather than requiring you to start from scratch.

As a quick example, the requirements of a simple registration form may look like this:

1. User enters First and Last Name (mandatory for user to complete this)
2. User enters email address (mandatory)
3. User selects location
 - A. The user can opt-in to share their phone's location with the app
 - B. If they decline that, the first step is selecting country of residence from a drop down of all countries
 - C. The user will then enter their zip code to indicate their city of residence
4. User enters password (mandatory – must have 1 special character and 1 numeral in password)
5. User re-enters password (mandatory)
6. User clicks submit (once form is submitted, email is sent to user to confirm address, after that confirmation happens the user can now login using the email and password they listed in the form)



As you can see, even a super basic registration form has a lot of steps. In the requirements list, it is necessary to get into this level of detail for every single feature and section of the app.

The initial requirements will be a long and detailed document. The requirements are like the detailed blueprint for your app. This document includes every feature that will go into the app. Remember – if something isn't in the requirements, and is added later, it is almost surely going to add to the cost and timeline of the development. Once we've done the full requirements list, we almost always recommend narrowing down the key features that you consider to be “must haves” and to consider starting with just these. **Y**

THE IMPORTANCE

OF STARTING SMALL - BUILDING AN MVP



Once you've done a comprehensive requirements list, we almost always recommend cutting it down. We encourage all clients to start with a minimal viable product, or MVP.

When creating a software product or mobile app, it is important to avoid a common risk – which is building more than you need to. It's tempting to include all of the bells and whistles that you can think of, but this is almost never the right approach. When first developing a technology product, it's advisable to start with an MVP. This is a bare bones version of the key functionalities you envision.

WHAT IS AN MVP?

An MVP is a basic, working version of your product, which looks great and is fully functional, but can be built fairly quickly and at less expense. You can push your MVP out to customers to validate your idea, and gather critical feedback from actual users. Think of it like the foundation of a new house: you need to first build a sturdy foundation before putting the rest of the house up. An MVP is like a finished basement that you can live in while building the first and second floors. The idea is to start with the key elements of the software that you want, and build on top of that. Once you've been able to get validation from actual users, you can then tweak and continue to build more.

As a quick example, picture an app we all know – Yelp. Yelp has a simple idea – helping people find restaurants, goods, and services. The app itself is very complex in that it has many parts. You can write reviews, add pictures, sort by filters, view dynamic maps, order food, and more. The MVP for Yelp was probably way, way simpler. For the purpose of this example, the MVP of an idea like that might simply be a list of restaurants, and the functionality for users to give them a simple 1-5 star rating.

There are two primary reasons to first build an MVP: validating your product idea and mitigating financial risk.

VALIDATING YOUR PRODUCT IDEA

It's exciting when you come up with a great idea for a software or mobile app. This is a good sign! However, the most important thing when building a product is making something that your prospective users want or need. It's great that you are passionate about your idea, and have a clear vision for many features. That said, many entrepreneurs make the mistake of building every feature they can think of right away. Oftentimes they do this without first checking with actual potential users – who may not actually want them. The result is often that the software build becomes very expensive and takes a long time. On top of that, once done, you may find that your intended users don't actually want or need some of the features.

This is one of the most common traps that first-time entrepreneurs fall into. We sure have – which is why we're sharing our mistake with you! It's advisable to first get something basic to potential users to make sure they like the direction you are going. You can then get feedback from them, and even new ideas that you may not have thought of.

This is a great reason to build an MVP. You can get something ready fairly quickly that looks great and has the primary functionality that is the essence of the idea. Next you can bring it to users to get their validation of the idea, as well as feedback. Once you've built an MVP and gotten user feedback, you may find that users' opinions or priorities are a bit different than you may have assumed – this is a good thing. The result is that you can take this feedback and continue to build features based on what you have some confidence that users will actually want and relate to. The result is a better trajectory for your product.

You may find that most, if not all of your assumptions were right – but you may also find that they weren't. The great thing about building an MVP is that you can, at low risk, validate assumptions and learn more, which in turn gives you a great road map to future development.

MITIGATING FINANCIAL RISK

Building software or mobile apps can quickly become expensive. It's easy to lose control of a project budget, particularly if you've never managed a software project before.

Building an MVP helps you start with limited risk, and then build. The result is that your initial expenditure won't break the bank. If you enter a project without an MVP, you'll be amazed by how fast budgets and timelines go out the window. MVPs always cost less and take less time to build than if you were to build every single feature you have in mind.

HOW YourCTO CAN HELP

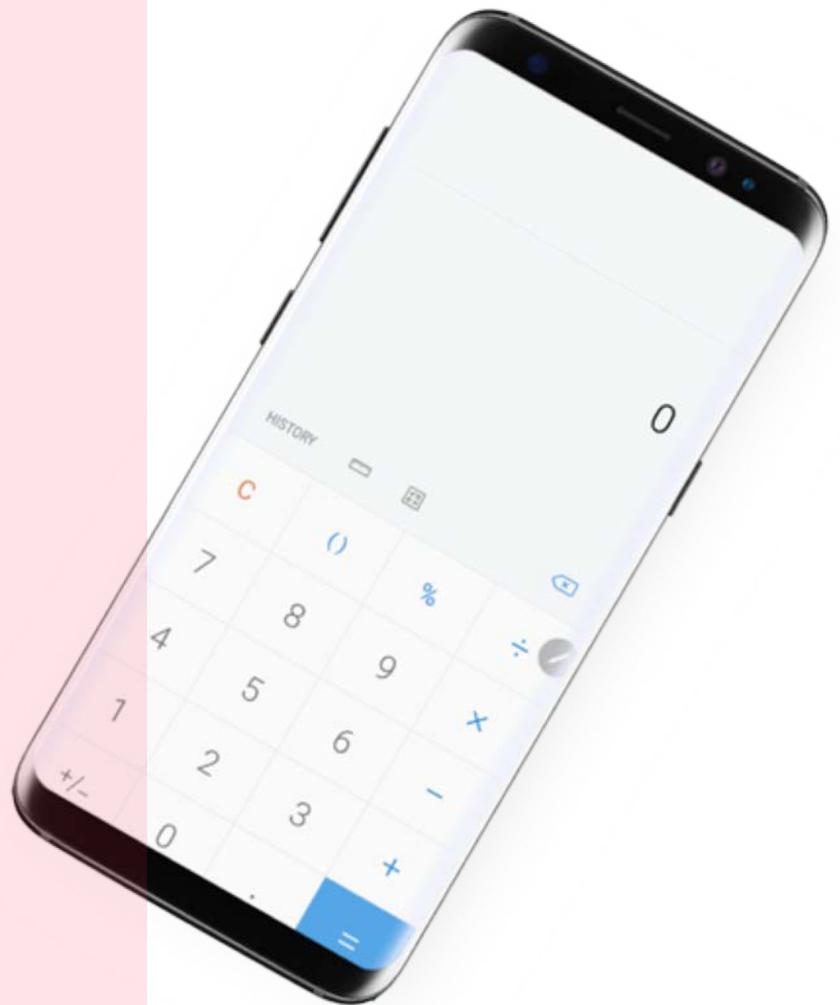
It's important to do your homework and vet developers as much as possible. The sad truth is that some companies will take advantage of first-time or non-technical entrepreneurs. One tip - if a potential developer doesn't recommend cutting some things, keep an eye out. They may be trying to encourage you to build more than you need. After all, the more work, the more billable hours.

YourCTO never does this. We want to help you understand the process of building an MVP. We always offer advice in terms of what we think the best way to approach a project is, and our initial advice is always to start with an MVP. We'll never try to expand the scope of your project for our benefit, and we'll never surprise you with hidden fees or bills for additional work. We want to be your technology partner. That means we care about your idea, and want to help you realize it in the most affordable, and dependable way.

If you want to contact us to discuss an MVP for your idea - feel free to send us an email at contact@yourcto.co 

HOW DOES

APP PRICING WORK?



Ok – so we've got requirements, and narrowed them down to an MVP size, how do I tell if the price quotes I'm getting are fair?

This is a good question, and the reality is that there is no one-size-fits-all answer. Every project is different, and as they say, the devil is in the details. The way that software developers or companies price app development is by estimating the amount of effort required to build each individual item in the requirements, and adding them up. In order to come up with an accurate pricing estimate for an app, it is vital to go through a very detailed process of gathering requirements and analyzing them. This takes time, effort, and research. If a developer gives you a price quote without going into this level of detail it is very likely a big red flag.

Software companies and developers tend to work on one of two pricing models:

- 1) **Fixed Price.** This means that there is a set price for the entire project.
- 2) **Time and Material.** this means that the company will bill hours as it develops the software, based on agreed upon hourly or monthly rates for specific developers.

The more moving parts an app has, the more development will be required, and the higher the price will be. What we advise here is to again speak with several potential partners, and get an idea of what they all charge. Keep one thing in mind – if an offer sounds too good to be true, that may be because it is.

One recent study requested price quotes from 49 software development companies for a simple mobile app. The average quote was over \$93,000, which is way too much for most people to afford. This is also a wildly overpriced estimate – and the result of the fact that many software companies try to take advantage of people who don't understand the software development process.



HOW YourCTO PRICES PROJECTS

While every project is different, to give you a sense of our approach and a general ballpark estimate of time and cost – our average MVP development costs between \$8,500 - \$13,500. We work closely with clients to suggest every possible way to save costs. Oftentimes there are creative ways to do this. If, for example, the app would have a live video chat feature, we may suggest using an existing third party service that enables live video chats. This may have some small monthly costs, but it will be multiples lower than the cost to build and test an entire live chat functionality from the ground up, and likely to be much more reliable, and faster to implement.

YourCTO only works on a fixed price model, and never introduces hidden costs. We put a huge amount of effort into the requirements process so that we understand exactly what our clients need. We go out of our way to suggest ways to cut costs where we can, and clearly indicate the fixed price for a project. This way, our clients are never faced with a situation where they are getting increasing bills and aren't sure what they are for. **Y**

OTHER NON- SOFTWARE

COSTS OF MAKING AN APP



It's important to understand that, in addition to the development, there are also some additional costs associated with making an app.

THESE CAN INCLUDE:

- **Apple App Store:** The Apple Store charges \$99 per year to be a vendor. If you want your app to be available for users with iPhones, this will be a necessary cost.
- **Google Play Store:** The Google Play Store charges a one-time \$25 fee to be a vendor (this is not repeated annually). If you want your app to be available for users with Android phones, this will be a necessary cost.
- **Subscriptions:** The Apple Store and Google Play Store both take a 30% cut of every app subscription. There is no way to avoid this cost. If you charge users \$10 per month to subscribe to your app, \$3 will go to the app store. We recommend that you keep this in mind while planning your subscription model. The stores take the same cut on any in-app purchases made.
- **Hosting:** You will need to host the app and data on a hosting service. Hosting typically costs about \$20 per month.
- **Email integration:** if you want users to be able to send emails to people to invite them to download the app, we will likely recommend using a third party tool. The free tier will cover many apps, but in some cases with a high number of users, advanced subscriptions may be required that would be between \$15 - \$99 per month.
- **SMS integration:** if you want users to be able to send SMS invites to other people to invite them to download the app, we will likely recommend using a third party tool. The price for this tends to run about \$15 per 2,000 outgoing texts.



- **Website:** to go through the app approval process, you will need to have a website online which has links to your terms of service and privacy policies. You will need to set up a free site, or buy a URL and hosting plan from a third party service.
- **SSL Certificate:** you will need to purchase 1-2 SSL security certificates which each cost about \$60-\$75 per year. SSL certificates indicate to users that there is a level of security protection. If hosting a website to promote the app, you may also want to purchase a third certificate for that purpose
- **Branding/Logo:** you will need to have a logo and app store icon for your app. You may want to hire a designer for this work, which will be an additional cost.



Once you've built your app, you may want to retain the software company you choose to manage ongoing maintenance. This means that when users find small errors in the app, aka "bugs," the maintenance team will fix them, test to make sure they are gone, and then push an update in the app stores so that the bugs disappear for users.

Maintenance can cost anywhere from 25% - %50 percent of the total app development cost, per year, and is typically charged on a monthly or annual basis.

YourCTO offers maintenance for any app development that costs \$12,500 or less for a fixed monthly fee of \$250, which can be done on a month-to-month basis with no required contract length. For projects that cost over \$12,500, YourCTO offers a maintenance package that is 30% of the total initial development cost - at the very low end of the industry standard. **Y**

HOW LONG DOES IT TAKE

TO BUILD AN APP?





As with pricing, the time that it will take to make an app depends on exactly what you're making. Simpler apps will be faster, while more complicated apps with lots of features will take longer.

It's also important to note that in the app development process, lots of unexpected challenges come up. Little bugs come from nowhere, and take time to track down, replicate, and fix. This is the case especially when building technologies that are new and untested. Software developers and companies know how to factor these in to time estimates, but as a rule of thumb we always tell people that extensions to the project timeline may happen, and to be prepared for those as they are sometimes not avoidable.

In our experience, the average timeline for building an app MVP is between 3-4 months – but each project is different. We'll always provide a firm time estimate before starting any project and do everything we can to stick with it! If unexpected events cause delays, we'll tell you right away so you can plan accordingly. **Y**

WHAT DO I NEED TO DO

BEFORE STARTING DEVELOPMENT?



Once you've found a technology partner, and are ready to start building your app, there are a few non-tech things for you to think of and start planning for.

APP STORES

If your app is going to be in either (or both) the Google Play Store or Apple App Store, you'll need to either create accounts there, or ask the software partner to create one on your behalf.

INDIVIDUAL VS. BUSINESS

You'll also need to determine if you are listing the app as an individual or a business. Which one you choose does not impact your users or app in any way, it will just list either your name, or your business name in the app detail page.

If you are going to apply for app approval as a business, you'll need to incorporate your business, and have a tax identification (EIN) number, and DUNS number in order to create a business account.

For more information about starting a business, see these resources:

www.sba.gov/business-guide/10-steps-start-your-business/ ⁱⁱ

www.forbes.com/sites/alejandrocremades/2019/02/13/how-to-start-a-business/ ⁱⁱⁱ

www.businessnewsdaily.com/4686-how-to-start-a-business.html ^{iv}

www.entrepreneur.com/article/297899 ^v

BASIC WEBSITE

You will also need to have a basic website up which lists your app's terms of services and privacy policy legal documents. We recommend consulting a lawyer for help crafting a simple privacy policy and terms of services.

Here are some resources to help you get started.

<https://blog.hubspot.com/marketing/you-need-a-privacy-policy> ^{vi}

<https://developer.apple.com/app-store/review/guidelines/#privacy> ^{vii}

<https://play.google.com/about/privacy-security-deception/> ^{viii}

www.nolo.com/legal-encyclopedia/how-to-write-an-effective-terms-of-use-for-your-website.html
^{ix}

APP NAME

You'll also need to decide on your name and branding. When picking a name, we always recommend either consulting a trademark lawyer, or searching the US Patent Office online trademark search site to see if your app name is already taken :

www.uspto.gov/trademarks-application-process/search-trademark-database ^x

Typically, if you do not see a live patent with the exact same name, and a very similar description to your app, you are in the clear – but we are not lawyers and always recommend consulting one to be sure. Some states also require that a business or individual register a trade name before using it in commerce – this is another good question to ask a lawyer.

One tip – often you can schedule a free consultation with one or more lawyers, where they will be happy to answer these basic questions for you, at no cost to you.

BRANDING

You'll also need to have a logo design for your app, in order to finalize approval in the app process.

You should also think about if there are specific color schemes that you like, or examples of other app's designs that you like – and share those with your software partner to help them understand what you want your app to look like visually. You'll need to have a logo that is 1024 x 1024 pixels for use as your app store logo.

LEGAL DOCUMENTS

We mentioned this earlier, but it is worth reiterating – you'll need to have a privacy policy and terms of services documents for your app. These documents outline the agreement you make with users when they use your app, how you store their data, and safeguard their privacy. We always recommend consulting with a lawyer for help on these. Your software partner will be able to send you relevant information about how the technical setup works if needed (e.g. where the data is physically being stored). 

4 TIPS FOR MANAGING

THE SOFTWARE DEVELOPMENT PROCESS



Once you've hired someone and started development, what happens next? Here are some tips for how to manage the development process.

- 1) **Schedule Regular Updates.** Make sure that you and the development team schedule regular check in calls or emails where they update you on what is happening. In our view, once every two weeks is a good schedule. It is tempting to ask for a daily call or check in, but in reality this is going to divert the developers' attention away from the task at hand, and not provide you with much relevant information. We recommend establishing an update schedule for the entire project at the start, and sticking with it.
- 2) **Don't be Afraid to ask Questions.** You're not a developer, so you may have trouble understanding some of the updates you are getting. Sometimes, developers have trouble translating technical terms in a way that we can understand easily. If you're confused about what something means – just ask. As the client, you have the right to get explanations.
- 3) **Be Ready for Bumps in the Road.** App development isn't always a smooth process. Weird bugs come out of nowhere. Bizarre errors happen in early versions of software. Sometimes we hit a technical roadblock that wasn't expected. Timelines can shift based on unexpected circumstances. These are all normal parts of the process. Don't freak out if the first version of your app has a lot of weird bugs. Keep in mind that the project may end up taking longer than initially planned. Going in with this mindset and understanding will definitely help your sanity! App development is about testing, testing again, fixing things, testing, fixing, testing, well, you get the point...
- 4) **Have an Exit Plan.** Hopefully everything goes well, but if you enter into a contract and aren't happy with the work you're getting, you want to have a way to get out with minimal risk. Unfortunately, we've heard lots of horror stories about this happening. Sometimes a company's sales team is great, but when they actually start working they become unresponsive. Sometimes a client relationship manager leaves abruptly,

and the project gets messed up. We've even heard of entire companies going out of business in the middle of a project and simply disappearing! Ultimately, when you choose a development partner, you're putting faith in them. But that doesn't mean you can't be protected too.

Make sure that in your contract you have the ability to withdraw from the contract for any reason with a month's notice. This is pretty standard – you won't recoup the money you've already invested, but you'll have a failsafe to protect future losses in the event of something happening.

YourCTO's APPROACH

We've been in your shoes – and these recommendations are based on our positive and negative real-world experiences. These experiences also inform the way that we manage projects with our clients. Our process is the same for every project of every size. We always guarantee:

- Development updates every two weeks. Clients are also always welcome to call or email us any time and we'll respond promptly.
- We welcome all client questions and answer them in detail, and using language that is relatable even without a technical background.
- When we hit any bumps in the road, we tell the client immediately and explain in detail as well as offering the solution.
- We are a small company and only take on as many clients as we can give full attention to. Every client relationship is managed directly by one of our co-founders.
- All YourCTO contracts have a clear structure that includes payments tied to development milestones, and accessible 30 day exit clauses that ensure minimum risk to our clients. **Y**

HOW DO I MANAGE THE APP ONCE IT'S BUILT?

APP ONCE IT'S BUILT?



This is an important question. Once an app is built, the bulk of the development work is done, but you may still find that you have some ongoing tech needs. The most common need is fixing bugs that pop up. Bugs are a fact of life when you have an app – and it's not possible to cover every potential bug during testing. Real world scenarios lead to new and unexpected bugs.

Firstly, let's take a quick step back and talk about what a bug is. A bug is defined as any unexpected behavior of the app that isn't supposed to be there. If a screen freezes, that is a bug.

Most software developer or companies offer what is called a maintenance plan for a monthly fee. The cost of these plans can range from 25% - 50% of the initial development cost, on an annual basis. So, if a project costs \$20,000 to build, the annual maintenance fee will likely be between \$5,000 and \$10,000 per year, or \$417 - \$833 per month.

It's important to understand exactly what is offered in a maintenance package. Typically these cover bug fixing, and pushing updates (i.e. updating the app in the app store to eliminate bugs once fixed). A good maintenance plan will explain a clear process for how to report bugs, how quickly they are fixed, and how often updates will be pushed.

One important thing to know is that maintenance does not cover new development. In other words, this kind of plan will not give you a technology team that can build new things, change the way things are built, and so on. Maintenance is just about fixing problems that come up.

Depending on your needs, you may, once the app is built, want to find a full time developer or team to work on it. This makes sense if you want the flexibility to make changes and build new features in your app.



THE YourCTO APPROACH

We have a transparent and consistent approach to maintenance. For any project that costs \$12,500 or less, we offer maintenance for a fixed monthly fee of \$250. These plans can be on a month-to-month basis, meaning clients can cancel any time if they no longer need it. For projects that cost above \$12,500, our maintenance fee is 30% of the cost, annually. We have a clear reporting process and timelines for reporting bugs, fixing them, and pushing updates.

For clients whose apps take off, we are also happy to offer more in-depth support. If a client wants to build future versions of the app, introducing new features or changing existing ones, we are always a phone call away. We can even, as needed, hire and manage a full-time team for the client if they want to have developers dedicated to their project full time. **Y**

MY APP IS BUILT!

WILL MY SOFTWARE PARTNER HELP ME GET
USERS AND MAKE MONEY?



It's important to understand what a technology partner does, and what it doesn't do.

A technology partner will help make your vision into an awesome app that provides your users with a great experience. Building your business, however, is your responsibility as an entrepreneur.

To paraphrase from the movie *Field of Dreams*, the tech partner can build it, but it's up to you to make sure people come to it.

Every business has a specific market, approach, and plan – our role as software partners is to understand these to the best of our ability, and build technology that matches your vision. We aren't, however, able to help with marketing the app, finding users, or generating revenue. That is a totally different expertise.

There are a lot of great companies and individuals who specialize in these things – and we've asked one to write a special guide for us in the next section of this E-Book. This will help you understand how to use marketing to get users for your app! **Y**



MARKET YOUR APP

HOW TO GET USERS

PRESENTED BY:

Your **CTO** and **UPSALE**



Bonus Guide: Learn the basics of how to market your app and acquire users



Tips for creating a comprehensive marketing strategy on any budget



ABOUT THE UPSALE GROUP

The Upsale Group helps entrepreneurs successfully market their apps and grow their user base. Over the last five years, we have helped dozens of entrepreneurs and business owners promote their businesses and apps online. We use a data-driven approach to identify the best performing marketing channels and make the best use of your marketing budget. We combine organic and paid marketing strategies to help you reach your marketing goals.

These are some of the areas in which we can help you:

Digital Marketing Strategy: We help you define your unique value proposition, understand your buyer persona, and analyze your competition, to create a digital marketing strategy that will achieve your goals.

App Store Optimization (ASO): Are you users finding your app on the App Store? ASO is the process of improving the visibility of a mobile app in the Google Play or Apple app store. We can help you optimize your app so potential users can easily find it.

Social Media Management: With more than 2.2 billion people on social media worldwide, it has become an essential part of any digital marketing strategy. Choosing the right platform and the right content is key to successfully market your app on social media. Our team can help you find your audience and deliver the right content to them.

Paid Advertising: Getting your app on the top results of users' internet searches is an effective way to drive downloads. Our team can help you create outstanding ads to help you increase your user base faster.

A comprehensive digital marketing strategy is crucial to make your app successful. Our team can help you define and execute the right digital marketing strategy.

We'd be happy to offer a free consultation to any readers of this E-book – feel free to contact us at j@upsalegroup.com.

CONGRATULATIONS!

You've finally developed your app, and are ready to show it to the world.

At this point in your journey, it's time to go out and find users. Of course, there are a lot of apps on the market, and user acquisition is never easy, but if you get the word out and communicate how people can benefit from your app you're going to increase your chances of gaining traction with users.

In this chapter, we'll show you how to approach your broader marketing efforts in a way that will give you the tools you need to maximize your chances of getting users. We'll also tell you about the specific ways to start reaching users through organic and paid advertising, and give you an idea of how much marketing costs.

The first thing you need to do is start thinking about what your value proposition is, and who your audience is. That way, you know who you are trying to reach and how to communicate with them.

DEFINING YOUR UNIQUE VALUE PROPOSITION

What makes your app unique, and why should users consider downloading it?

If your app doesn't solve a real need, it will be very difficult to get users. It doesn't matter how thorough and effective your marketing efforts are, or how much money you spend on paid advertising unless your app adds value to your users and is intuitive and easy to use. Before you spend any time or money on marketing, you need to think about what is unique and special about your app. This is known as your Unique Value Proposition (UVP).

If you're reading this E-Book, before deciding to build your app you will have already spent a good amount of time thinking about what problem your app is solving. You'll also have done some competition research and thought about where your app fits into the marketplace. In other words, you're already one step ahead of the game! Now is the time to dive into these in more depth, to think about how to communicate your UVP to potential users.

Here are some questions that can help you define your UVP:

- What problem or problems is your app trying to address?
- What makes your app unique and distinguishable?
- Is your app something people would pay for?
- What users might be willing to pay for additional upgrades?
- Why should users choose your app over similar alternatives?

After you have thought about these questions, it's time to create a Unique Value Proposition statement. If you need some inspiration, look at Uber's:

Uber is the smartest way to get around. One tap and a car comes directly to you. Your driver knows exactly where to go. And the payment is completely cashless.

Let's do a quick example together. In this example, we're marketing an app that helps people with allergies find products that they can use comfortably.

- What problem or problems is your app trying to address?

With so many places to shop online, it can be hard to quickly find products that are hypo-allergenic, for people who are allergic to specific materials.

- What makes your app unique and distinguishable?

Our app integrates with existing e-commerce platforms (e.g. Amazon) and lets users automatically filter products based on materials that they are allergic to (e.g. clothes that don't have wool in them, and food items without peanuts). This way, people can keep shopping from the places they like, but have an easy way to avoid products that they may be allergic to.

- Is your app something people would pay for?

Absolutely. There is nothing worse than buying a product, only to find out once it is delivered that you can't use it!

- What users might be willing to pay for additional upgrades?

People for whom avoiding certain materials is extremely important. For example, people who have severe allergies are often wary about eating in restaurants, where it can be hard to know if a menu item has a specific ingredient in it. It can also be embarrassing to ask about each menu item. Users with food allergies may be willing to pay for an upgraded service where they and other users can review how willing restaurants are to explain their dishes and make modifications based on allergies.

- Why should users choose your app over similar alternatives?

Our app is a one-stop-shop for people with allergies. It helps them find the right products across all sectors in one convenient place.

Now let's work on a UVP statement. It's important to have a concise and compelling description of your app and its value to users. This is going to form the foundation of your brand messaging and communication with users. It's critical that people can quickly understand the product and its value - it will go a long way towards getting them to download your app.

Our Sample UVP Statement:

AllergyAway is the best way to make sure you never have another allergic reaction to a product or food. We make it easy and quick to eliminate products that you're allergic to, right on the online stores you already frequent!

FIND YOUR NICHE

Now that you've clearly defined your UVP, you need to start thinking about who your potential users are.

With more than 2,100,000 apps out there, and hundreds more released every month, it can be hard to stand out. In the initial stages, you want to focus on the users that are most likely to download your app so that you can get some early traction. The first users of your app are known as Early Adopters.

Your early marketing efforts should be focused primarily on finding these users. One of the most effective ways to start this process is to use the concept of a **Buyer Persona** to define the profile of who you think will be the ideal Early Adopter.

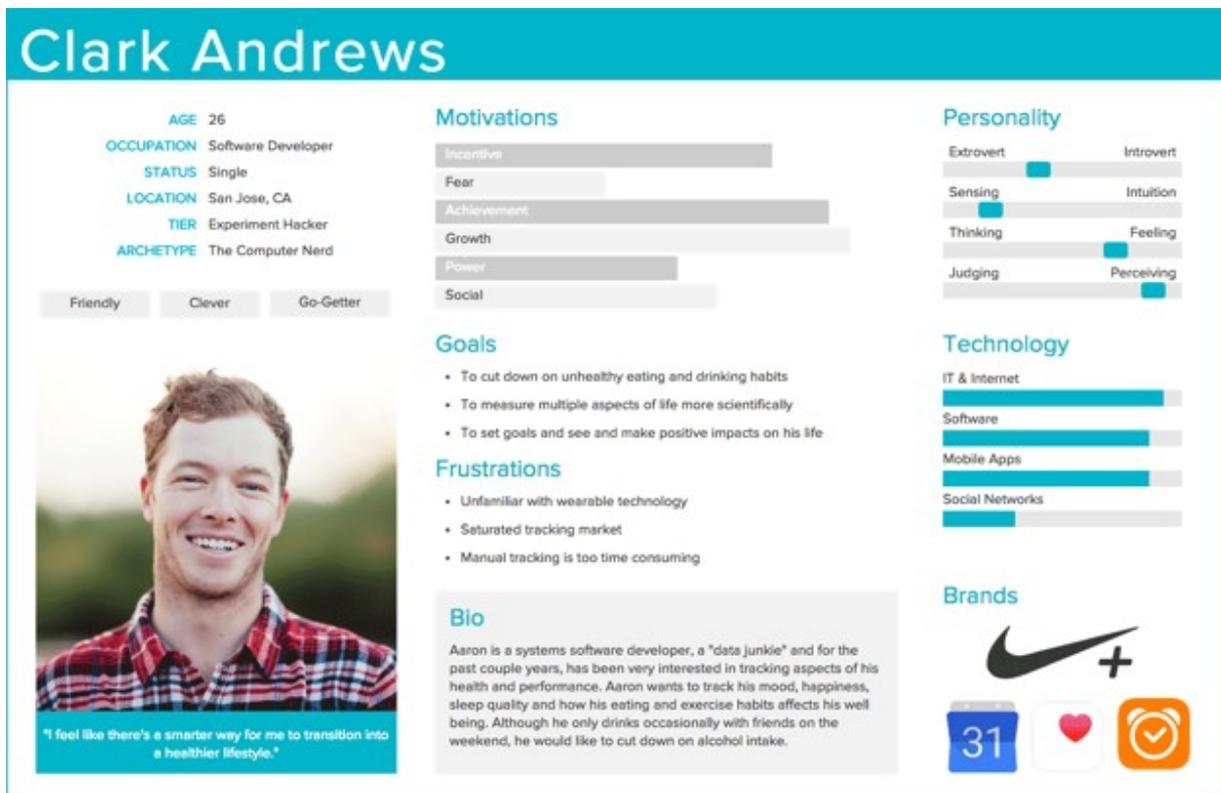
A **Buyer Persona** is a semi-fictional representation of your ideal customer.

Think of this as an outline of the characteristics of the typical user that you envision enjoying your app.

To define your buyer personas, you should think about the following:

- **Demographics:** age, gender, income level, education level, location
- **Psychographics:** attitudes, beliefs, personalities
- **Intent:** why they will download your product, what functions are most important to them
- **Value:** how does the app enhance their life or what challenges does it solve?
- **Objections:** why would they consider not buying/downloading it?
- **Where are they hanging out?** Where can you look to find this type of person?
- **How do they communicate?** Would they prefer to text, email, talk on the phone?

You can represent your buyer persona in multiple ways. Here is one example:



Source: www.keepitusable.com/blog/tag/benefits-of-personas/ ^{xi}

Let's do one together. For this example, let's say that we are marketing an app that helps students find virtual tutors to help them study or prepare for exams.

Let's go through the questions and answer each one.

- Demographics: age, gender, income level, education level, location

*High school, college or graduate students - age range 15-25.
Location: skewed towards cities/towns with a large student population.*

- Psychographics: attitudes, beliefs, personalities

Determined, studious, stressed out (particularly during exam time!)

- Intent: Why they will download your product, what functions are most important to them

The users need help studying and preparing for exams. They are under a lot of pressure to do well and feel that they would benefit from someone who can help them learn. The most important function of the app is helping a student find an appropriate tutor, and connecting them.

- Value: how does the app enhance their life or what challenges does it solve?

The app offers an affordable way to find tutoring, from the comfort of the student's dorm room.

- Objections: why would they consider not buying/downloading it?

Cost may be a big barrier. For this reason, the app offers different priced tutors, so that there are affordable options for everyone.

- Where are they hanging out? Where can you look to find this type of person?

Students convene on campuses and related online forums. Finding Facebook groups or WhatsApp groups of student study groups/clubs may be a great place to find users. In the early stages, think about people in your network who may be potential early adopters. Isn't your cousin in college? Ask her to try out your app and send it to her friends.

- How do they communicate? Would they prefer to text, email, talk on the phone?

This is a younger demographic, so social media, SMS, and WhatsApp are likely going to be more effective than email or phone.

A Buyer Persona is a great tool to understand your potential customers and focus your marketing efforts around them. This helps you identify the best places to find the kind of users you are looking for, and it helps you anticipate and mitigate potential pain points that could keep them from downloading your app.

You now have an idea of who you are looking for, and where to find them. Remember, as you start getting early adopters it is important to listen to them as much as possible. Try to engage with users to ask what they like about the app, dislike, and where there could be additional improvements. The more you know about your users and what makes them happy, the better you can continue to refine your approach.

UNDERSTAND THE TERRITORY

The app marketing and digital marketing landscapes evolve very quickly. With more than \$100 billion spent annually on digital ads worldwide, more and more businesses are turning to online advertising to accelerate their growth. Before you start marketing your app, it is important to understand the different alternatives out there, so you can choose the right option.

ORGANIC VS. PAID ADVERTISING

Organic advertising means advertising that is free to you. This should be an important component of any marketing strategy. While it can take a long time to pay off, once it does, it will continue to blossom. Below are some examples of methods for organic advertising.

- App Store Optimization (ASO): when you search for an app in the app stores, you type a phrase into the search section, and you are presented with a list of available app options. ASO is the process of optimizing mobile apps to rank higher in an app store's search results. The higher your app ranks, the higher the chances potential customer will download it.
- Search is still the main channel that potential customers will use to discover your app. Forrester estimates that 63% of apps are discovered through search. [Source: www.techcrunch.com/2013/04/17/forrester-app-discovery-report/ ^{xii}].

ASO should be a key component of any app marketing plan.

By now you should be wondering, ok, but how do I optimize my app to rank higher on search results? The best place to start is the most obvious one. What do you do when you search for an app? You type a phrase. In marketing terms, this phrase is called a keyword. Therefore, you should start by focusing on your keywords.

YOUR KEYWORDS

One of the most important aspects to improve your app store search rankings is the choice of keywords. You can start by making a list of 50 potential keywords that users may use when searching for your app. There are several free tools you can use to assist you with your keyword search. Use these tools to understand the search volume of these keywords (i.e. how many people are searching for these words).

[Source: <http://www.meatti.com/app-store-keyword-suggestions> ^{xiii}

and <https://neilpatel.com/ubersuggest/> ^{xiv}]

The keywords you choose must be relevant to your app. Avoid selecting popular keywords that are not relevant to your app; it will do more harm than good.

Once you have chosen a list of keywords, you have to use them creatively in your app name and your app description. Using keywords in your title can result in up to a 10.3% increase in rankings

[Source:

www.forbes.com/sites/johnrampton/2015/10/16/the-beginners-guide-to-app-store-optimization/ ^{xv}]

YOUR APP ICON

A great icon design can boost your conversion rate. Design a great icon that is consistent with your brand identity.

YOUR SCREENSHOTS

The saying “a picture is worth a thousand words” perfectly describes the importance of your screenshots. Select screenshots that show the main benefits users can gain from using your app. Avoid screenshots of generic sections like login or registration.

RATINGS & REVIEWS

Between an app with a 4.5 star rating and an app with a 2 star rating, which one will you choose? Great ratings are important. Engage with your early users, ask them for feedback, and follow up on their concerns. You can implement a “send feedback” section in your app to make it easier for them to share their thoughts. Encourage your satisfied users to leave positive reviews.

SEARCH ENGINE OPTIMIZATION (SEO)

SEO is to web search as ASO is to app store search. If you have a landing page or a website to promote your app, you should also consider SEO. Every time you search on Google, or another search engine like Bing, you get an ordered list of results. The search engine tries to give you the most relevant result based on your search query. Search engines have algorithms that rank the pages based on how relevant they estimate the content on the page is to the search query. Do keyword research to identify what users are looking for, and optimize your content around those keywords.

There are several free tools that can help you do a free SEO audit of your website such as www.semrush.com/^{xvi} and www.seoptimer.com/^{xvii}

You can also check out this helpful guide:

<https://blog.hubspot.com/marketing/how-to-do-keyword-research-ht>^{xviii}

FRIENDS AND FAMILY

When your app is ready for users, start close to home! Think about friends, family members, and other people in your network who may be willing to download it, review it, and try it out. If you're a student, your classmates may be happy to do this. If you're active in a local sports league, ask your teammates.

This is a great way to get some early users, hear their feedback, and even get some initial traction via positive reviews.

WORD OF MOUTH

Think about how many times you've downloaded an app, bought a product, or tried a restaurant because someone you know and trust told you about it. This is word of mouth marketing. There is no better kind. Think about creative ways that you can get people talking about your app, and telling their friends. You might think about doing a giveaway to attract attention. You might just focus on having amazing customer service, hoping that people will go tell friends about how great their experience was (and they will!) Lastly, think about just simply asking people to refer others to your app. You should always consider building a share feature in your app that will let users invite their friends to download the app directly from their contact list.

EARNED MEDIA

This is media that you don't have to pay for, like coverage in local blogs or newspapers. Think about ways that your app might make an interesting story, and try to pitch it to local reporters and bloggers! You can also write content pieces on your area of expertise (that relates to your app) and try to get it published on related blogs, and places like Medium.

PROACTIVE RESEARCH

Another thing you can do is put time into researching existing organizations, networks, or communities where your users may naturally already convene, and meeting them there. If, for example, your app is targeting soccer players – look up the local soccer leagues and think about joining one, or going to the games to talk to players! Find out social media pages where soccer players talk to one another and try to connect there.

PAID ADVERTISING

Paid advertising is marketing that you pay for. We're going to focus here on digital/online methods.

APPLE SEARCH ADS

Apple Search Ads are an efficient and easy way to help people discover your app on the App Store. With Apple Search Ads, you can advertise on selected keywords, and select how much you want to pay for each click on the ad, up to a maximum monthly budget. You can select a series of criteria to narrow your target audience like device type, gender, age range, location, etc. Apple Search Ads are an effective way to speed up your user acquisition.

GOOGLE ADS

The Google advertising platform is probably the biggest in the world. Advertisers bid on certain search keywords to show their ads when users search for terms related to those keywords. Your Ads can appear directly on the search engine results or as visual ads on other websites. The latter one is called the Google Display Network, and it includes Google sites like YouTube, Blogger, and Gmail, plus thousands of partnering websites across the Internet. The Google Display Network has more than 2,000,000 websites and reaches over 90% of internet users.

GOOGLE REMARKETING

When somebody visits your website and they leave without executing the action you want, you can use remarketing ads to show them targeted ads. This is called remarketing. Past visitors will see these ads while they are browsing the web, watching YouTube videos or reading news sites. Remarketing Ads are great for building brand recognition.

Use of different online platforms by demographic groups

Use of different online platforms by demographic groups

% of U.S. adults who say they ever use the following online platforms or messaging apps

	YouTube	Facebook	Instagram	Pinterest	LinkedIn	Snapchat	Twitter	WhatsApp	Reddit
U.S. adults	73%	69%	37%	28%	27%	24%	22%	20%	11%
Men	78	63	31	15	29	24	24	21	15
Women	68	75	43	42	24	24	21	19	8
White	71	70	33	33	28	22	21	13	12
Black	77	70	40	27	24	28	24	24	4
Hispanic	78	69	51	22	16	29	25	42	14
Ages 18-29	91	79	67	34	28	62	38	23	22
18-24	90	76	75	38	17	73	44	20	21
25-29	93	84	57	28	44	47	31	28	23
30-49	87	79	47	35	37	25	26	31	14
50-64	70	68	23	27	24	9	17	16	6
65+	38	46	8	15	11	3	7	3	1
<\$30,000	68	69	35	18	10	27	20	19	9
\$30,000-\$74,999	75	72	39	27	26	26	20	16	10
\$75,000+	83	74	42	41	49	22	31	25	15
High school or less	64	61	33	19	9	22	13	18	6
Some college	79	75	37	32	26	29	24	14	14
College+	80	74	43	38	51	20	32	28	15
Urban	77	73	46	30	33	29	26	24	11
Suburban	74	69	35	30	30	20	22	19	13
Rural	64	66	21	26	10	20	13	10	8

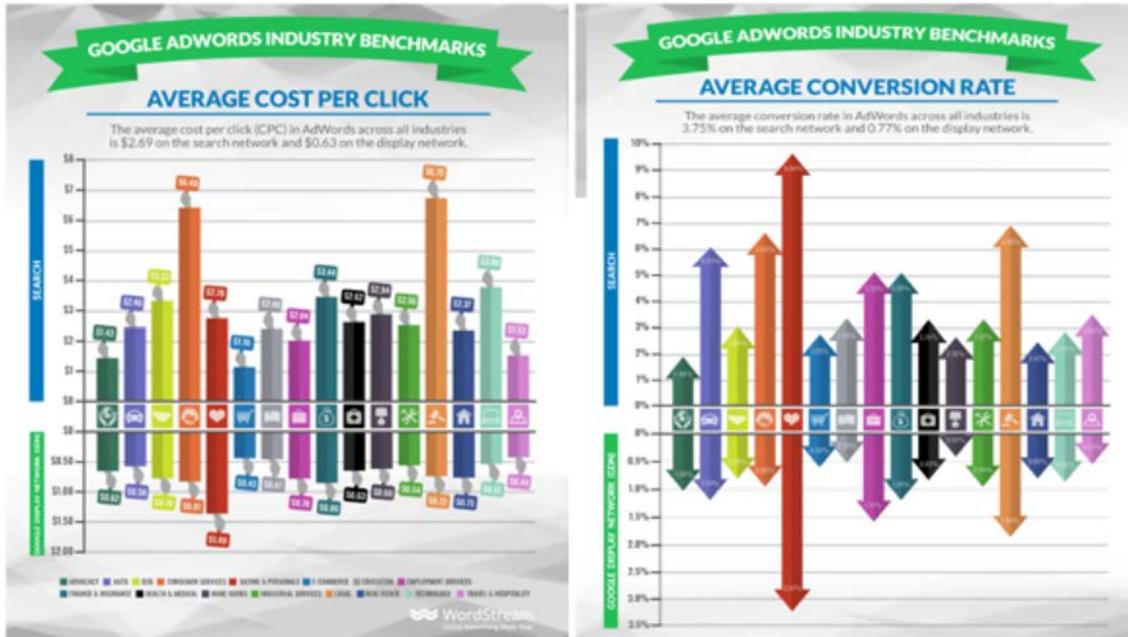
Note: Respondents who did not give an answer are not shown. Whites and blacks include only non-Hispanics. Hispanics are of any race. Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

[Source: www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/,^{xix}]

SOCIAL MEDIA ADVERTISING

Another great way to let potential users know about your app is to use social media. All major social networks offer advertising options. When doing social media advertising the most important aspect to consider is which networks are most popular with your target audience.



Source: www.wordstream.com/blog/ws/2016/02/29/google-adwords-industry-benchmarks xx

HOW MUCH DOES PAID ADVERTISING COST?

The cost of Ads varies by platform. Google, for example, uses a bidding system to price their ads. So the final price you will pay for your Google Ads depends on several factors, including your keywords, the relevance of your ad, and how many other companies are bidding on similar keywords. But to give you a general idea of the cost of running Google Ads, here are some averages:

Cost per Clicks is only a part of the equation. Not all of the users that click on your ads will become clients. So, you should also consider an additional metric: the conversion rate. The conversion rate tells you what percentage of users executed the action you wanted.

How Much Does a Click Cost on Each Social Network?

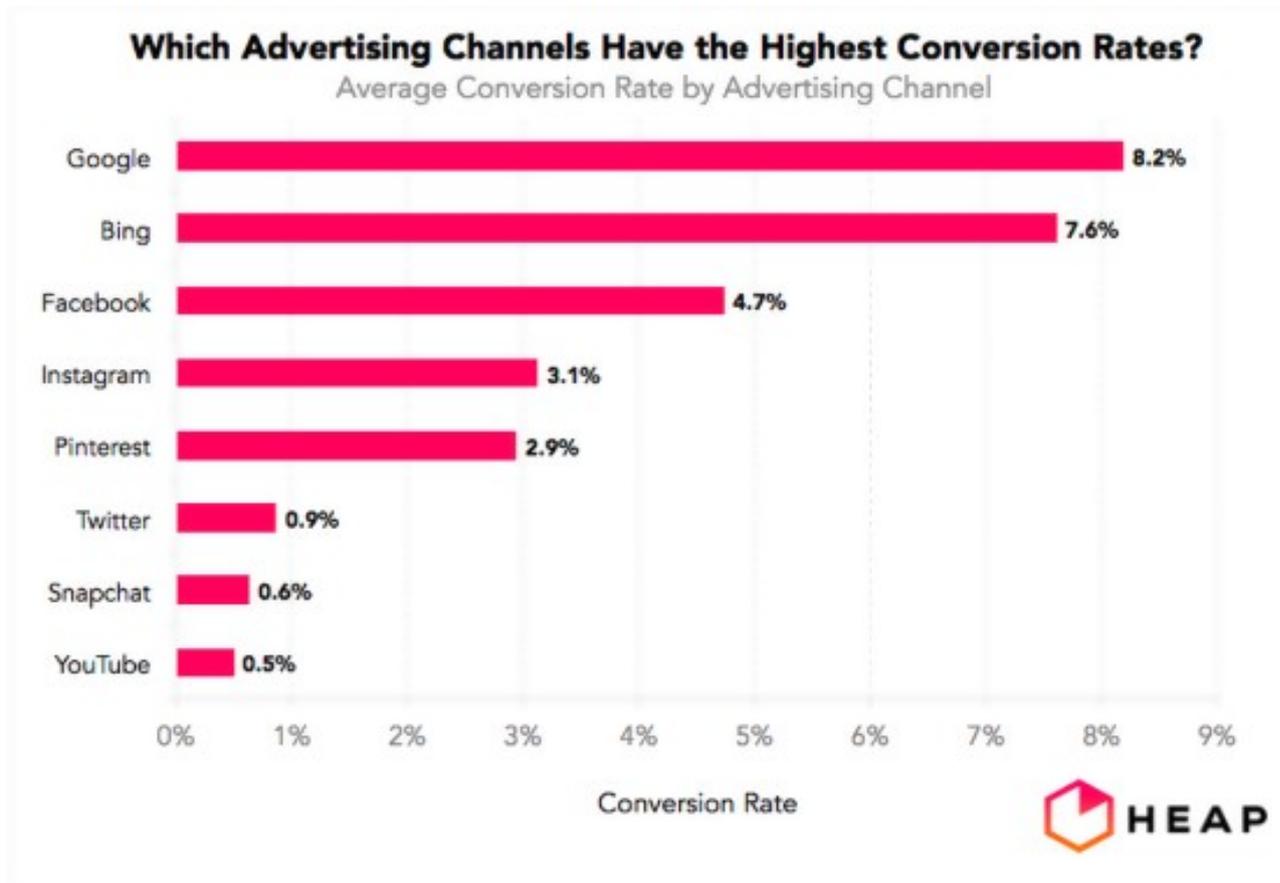


Source: www.falcon.io/insights-hub/topics/social-media-roi/how-much-do-ads-cost-on-facebook-instagram-twitter-and-linkedin-in-2018/ ^{xxi}

Keep in mind that these numbers are industry averages. Your actual results may be different.

To understand how the Cost per Click and the Conversion Rate are related, let's look at an example. If you have a cost per click of \$1, and you have a conversion rate of 1%, it means it will cost you \$100 to get 1 user to execute the action you want.

Usually, the Cost per Click on Social Media platforms is lower than the cost per click on search engines.



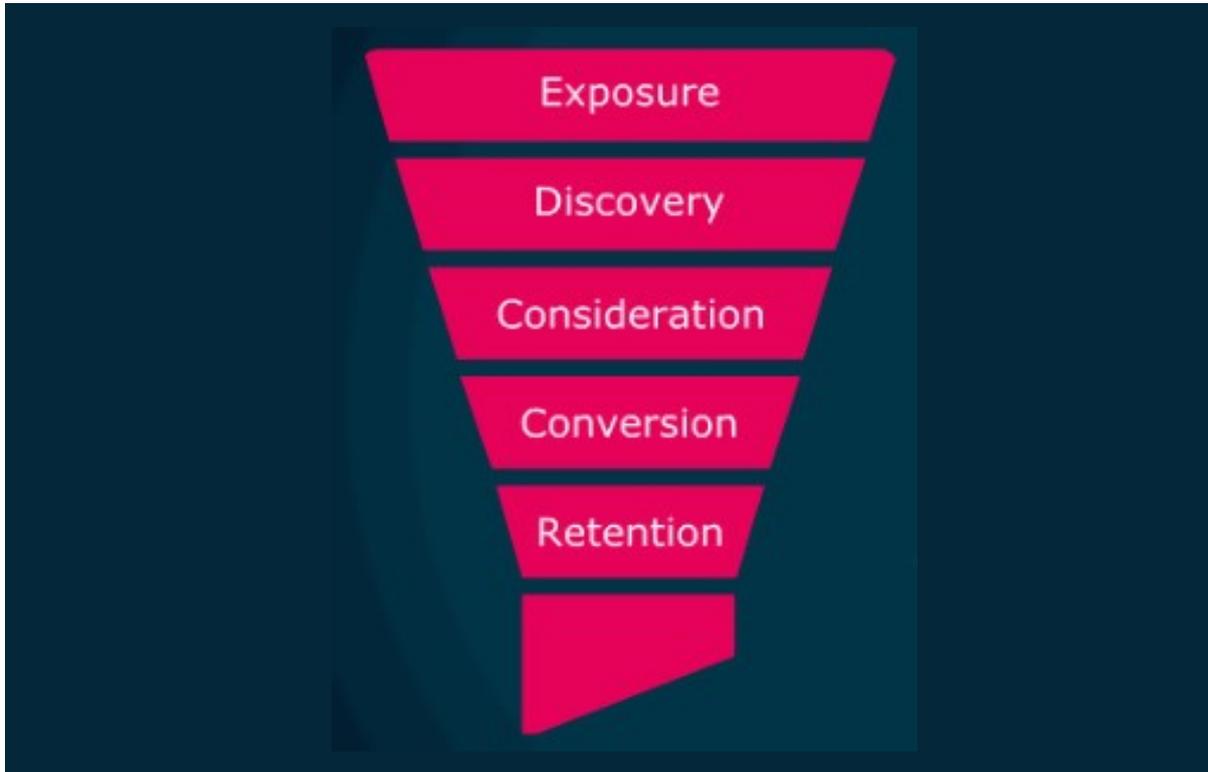
Source: <https://heapanalytics.com/blog/data-stories/4-key-facts-you-should-know-before-allocating-ad-spend> ^{xxii}

With regards to conversion rate, here are some averages by channel.

IDENTIFY YOUR GOALS

What do you want to achieve with your marketing efforts? The obvious answer is to get people to download your app. But, going into more specifics - how many people do you want to download your app? In what time frame? How much are you willing to spend to capture these users?

When thinking about your marketing goals, use the SMART goal structure. Your goals have to be: Specific, Measurable, Attainable, Relevant, Time-bound.



The best way to think about your marketing goals is by using the concept of the conversion funnel.

In marketing, a conversion is an action you want the user to take. It could be to download your app, give your app a positive review, or use your app every day. Your marketing efforts should be structured in the pursuit of that conversion goal.

Going back to the conversion funnel, imagine the funnel as the set of steps somebody in your target audience will take to become your customer. It is your goal to make it as easy as possible for them to take these steps.

The funnel shape, which is an inverted cone, helps capture a very important fact - only a fraction of your potential customers will become your customers. That's totally fine, and to be expected. Some people move through the funnel faster than others do, and some of them will stay at the upper levels and lose interest.

These are some of the most common steps that make up a conversion funnel:

- **Exposure:** You have to get the word out there, to let potential users know that they can benefit from using your app. You have to build awareness. There are multiple ways to do this: social networks, app review blogs, and paid ads, among others. These are known as marketing channels.

You have to identify the channels on which you are more likely to find your audience and leverage them to the best of your ability.

- **Discovery:** In this step, the potential users first learn about your app. This is your chance to make a great first impression.

A good website/landing page and a great app description are critical in this step. You should clearly articulate the benefits of your app to potential users. Help them understand how the features translate to benefits that could help them solve their problems.

- **Consideration:** In this step, potential users are thinking about trying your app. The best thing to do here is to show them that other users are getting value from your app. This is called social validation, and it plays a vital role in the consideration phase. Positive ratings, testimonials, and reviews encourage trust, which in turn boosts conversions. You might start out by asking your friends and family to download your app and consider giving you a positive review.
- **Conversion:** A conversion is when a potential user takes the action you want them to take. Usually, your initial conversion goal is for a potential user to download your app. However, after that, you need to target other actions, like subscribing or making an in-app purchase. You could have multiple conversion goals depending on your revenue model.
- **Retention:** This is likely the most important step of the conversion funnel, especially if you have a revenue model that requires your users to engage

within your app over a period of time (for example, renewing a subscription every month).

It is important to keep users interested in your app once they've downloaded it. Try to provide new content and use techniques like gamification, in which you reward users for completing certain tasks inside the app.

HOW TO ALLOCATE YOUR MARKETING BUDGET

Now that you have a better understanding of the available marketing options, and a general idea of the average costs and average conversion rates of the main advertising platforms, you should be wondering, how much should I spend? What can I get for that money?

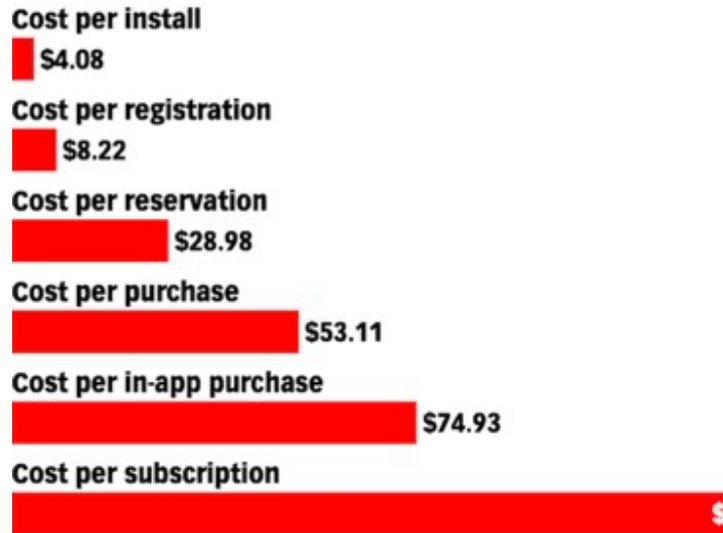
Before we can answer that question, let's take a moment to review some statistics. A widely used static in app marketing is the Cost Per Install. As the name implies, this represents how much it will cost us to make a user download our app. The cost is usually associated with the different marketing actions performed, to move that user through the conversion funnel.

Key Average Cost Per Install Statistics:

- iOS app CPI Globally - \$0.86
- Android app CPI Globally (Google Play market) - \$0.44
- iOS app CPI in US - \$2.07
- Android app CPI in US (Google Play market) - \$1.72
- Cost Per Install on Facebook Ads - \$1.8
- Cost Per Install on Twitter Ads - \$2.53
- Cost Per Install on Instagram Ads - \$2.23
- Cost Per Install on Search Ads - \$1.00

Source: <http://www.businessofapps.com/ads/cpi/research/cost-per-install/>^{xviii}

Mobile App Acquisition Costs in USD



[Source: www.benchmarks.emarketer.com/channel/58fe53add2670009840a9ef1/58f51e0a5ba4610f80aa08f6 xxiv]

As we can see, the average cost per install in the US is \$2.07. In simple terms, this means that to get 1,000 users we should spend on average \$2,007 in marketing. Depending on the revenue model you have chosen for your app, getting a user to install your app is not necessarily the end of the journey. Your revenue model may rely on users performing an additional action, in which case you may have to spend more.

According to this source, the average cost per install is \$0.48. If your app requires a registration, the average cost per registration is \$8.22. If your app has a subscription model, the average cost to get somebody to subscribe is \$148.01.

HOW TO MARKET YOUR APP WITH LESS THAN \$500/MONTH

If you have less than \$500/month for marketing, you should focus your efforts on organic tactics. Make sure your app is optimized for search. Use word of mouth to incentivize friends to download and try the app. Create a referral program in which you offer a small incentive to people who download and try the app. Use social media to create posts that highlight the benefits of your app.

HOW TO MARKET YOUR APP WITH \$1,500/MONTH

With a \$1,500/month marketing budget, you should allocate around 30% of your budget to design and implementing organic marketing tactics. Use the rest of your budget to experiment with different channels of paid ads. You should start by trying out Apple Search Ads or Google Ads. You can also use Social Media Advertising.

HOW TO MARKET YOUR APP WITH \$5,000/MONTH

With \$5,000/month, you have enough of a budget to create comprehensive organic and paid strategies. Depending on your niche, you could also try influencer marketing. Think about hiring a digital marketer or growth hacker to help you refine your Marketing Plan.

THE MARKETING PLAN

The sections above have helped you figure out what your value proposition is, who your target users are, how to reach them, how to define your marketing goals, what the available options are to market your apps, and what the costs involved are.

Now it's time to put everything we have learned so far together. The best way to do this is through a marketing plan. The marketing plan describes the strategies and tactics to reach your target audience and persuade them to download and use your app.

A marketing plan should include these sections:

- **Your Goals:** What do you want to achieve in the short and long terms?
- **Your Unique Value Proposition:** Your marketing efforts have to revolve around the benefits your app provides to potential customers.
- **Who are you targeting:** This is your Buyer Persona. Knowing your Buyer Persona will help you find the right marketing channels to target your audience. If you are using paid advertising, knowing your audience will help you segment your audience and hone in on successful approaches.
- **Marketing Channels:** Are you going to use paid advertising or focus on organic tactics? Or maybe a mix of both. Identify what specific channels you plan to use.
- **Conversion Funnel:** How are you going to attract potential clients and turn them into clients? What are the steps that you want them to take in the conversion process?
- **Tracking Systems:** How are you going to track your goals and spending? This is key to the success of your marketing efforts.

Remember, not having a plan is planning to fail. We wish you the best of luck as you start the journey of building and marketing your app!

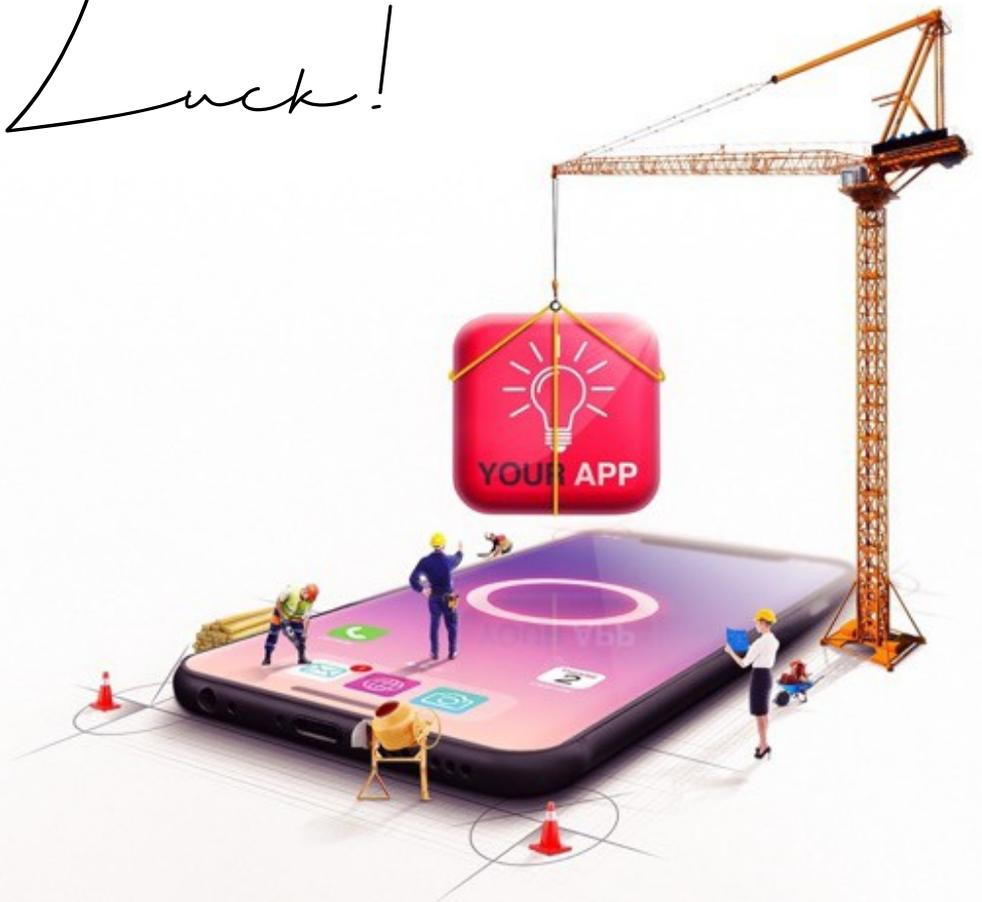
If you would like to learn more about how you can build your app, feel free to reach out directly to us at contact@yourcto.co

If you've already built your app, and would like a free consultation about how to put together your marketing plan, feel free to reach out to our marketing partner the Upsale Group at j@upsalegroup.com 

We wish you the best of luck as you start the journey of building and marketing your app! If you would like to learn more about how you can build your app, feel free to reach out directly to us at contact@yourcto.co and one of our co-founders will reach out to schedule a call.

If you've already built your app, and would like a free consultation about how to put together your marketing plan, feel free to reach out to our marketing partner the Upsale Group at j@upsalegroup.com

Good Luck!



Source Links

- ⁱ www.upwork.com
- ⁱⁱ <https://www.sba.gov/business-guide/10-steps-start-your-business/>
- ⁱⁱⁱ <https://www.forbes.com/sites/alejandrocremades/2019/02/13/how-to-start-a-business/>
- ^{iv} <https://www.businessnewsdaily.com/468-6-how-to-start-a-business.html>
- ^v <https://www.entrepreneur.com/article/297899>
- ^{vi} <https://blog.hubspot.com/marketing/you-need-a-privacy-policy>
- ^{vii} <https://developer.apple.com/app-store/review/guidelines/#privacy>
- ^{viii} <https://play.google.com/about/privacy-security-deception/>
- ^{ix} <https://www.nolo.com/legal-encyclopedia/how-to-write-an-effective-terms-of-use-for-your-website.html>
- ^x <https://www.uspto.gov/trademarks-application-process/search-trademark-database>
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- ^{xxiv} <https://benchmarks.emarketer.com/channel/58fe53add2670009840a9ef1/58f51e0a5ba4610f80aa08f6>