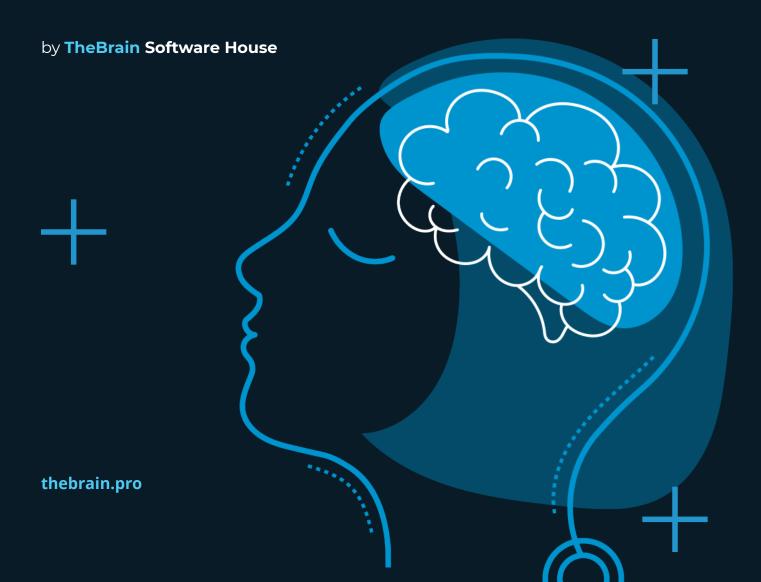




# BUILDING A SUCCESSFUL APP FOR YOUR BUSINESS

## WHY YOU SHOULD OUTSOURCE APP DEVELOPMENT





### **ABSTRACT**

It goes without saying that the most important step for a business leader to take after deciding to build an app is to consider how to build it. Businesses can hire in-house, contract a freelancer, or go all in with an outsourced development team. This paper discusses the importance of defining the kind of app you want, and how to weigh the benefits and disadvantages across all options to find the right partner to build it.

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```
import UserNotifications
       @UIApplicationMain
      class AppDelegate: UIResponder, UIApplicationDelegate, KiipDelegate, UM
           var window: UIWindow?
          var launcher:LaunchCommands?
var music:BackgroundMusic?
          func application(_ application: UIApplication, didFinishLeunchingWit
               launcher = LaunchCommands()
music = BackgroundMusic()
               music?.start()
               musicr.start()
launcher?.build().forEach { $0.execute() }
              launcher?.scheduleTwinkleTimer()
Kiip.sharedInstance().delegate = self
              UNUserNotificationCenter.current().delegate = self
              return true
        func applicationWillTerminate(_ application: UIApplication) {
             launcher?.stopAnalytics()
launcher?.cancelTimer()
       func applicationDidEnterBackground(_ application: UIApplication) {
    launcher?.stopAnalytics()
      nc userNotificationCenter(_ center: UNUserNotificationCenter, willPrese
  (UNNotificationPresentationOptions) -> Void) {
    completionHandler([.alert, .sound])
extension AppDelegate{
    @objc static func currentInstance()->AppDelegate{
    return UIApplication.shared.delegate as! AppDelegate
```



## **DEVELOPERS ALL AROUND**

For business leaders across industries, there is an abundance of talent to consider when thinking about how to build a viable app. In the 2018 Global Developer Population and Demographic Study, the Evans Data Corporation estimates there are currently 23 million software developers in the world - a number set to rise to 28 million by 2023. With developers working just about everywhere, from development agencies to freelance marketplaces, it can be difficult to find the appropriate person or team that can deliver your app at your price point.

This paper aims to assist businesses in their search by evaluating development sources through the lens of three important, interwoven areas: the *budget*, *scope*, and *timeline* of your project.<sup>2</sup> However, your knowledge of these variables can only come from understanding what it is you want to build in the first place. What exactly is the problem your app intends to solve? Who is your end user? Not only will these questions help shape your product - its features, its design, its purpose - but they will help you understand its projected cost and inform your priorities when evaluating potential partners.



<sup>1. &</sup>quot;Global Developer Population and Demographic Study 2018 Volume 2." Evans Data Corporation. Accessed from https://evansdata.com/reports/viewRelease.php?reportID=9.

 $<sup>2. \ ^{\</sup>circ} The \ Ultimate \ Guide \ for \ Project \ Managers \ to \ Choosing \ Software \ Development \ Agencies. ^{\circ} September \ 2018. \ Accessed \ from \ https://blog.oursky. \\ com/2018/09/22/choosing-software-development-agencies-guide/.$ 



## **UNDERSTANDING YOUR APP**

The best way to begin framing your product is to discern its purpose in the context of your end user. Is it a consumer-facing app to help improve customer experience, or is it an internal product meant for maximizing employee productivity? Knowing the value proposition for your users, as well as their pain points and needs, will help you articulate your target user experience.<sup>3</sup> This will also help you map out your answers to the more detailed questions, like:

What is your expected volume of users?

What type of user authentication or authorization will be required?

Will your app be distributed publicly or privately?

What devices will be targeted?

What mobile operating systems need to be supported?

Will ongoing maintenance and support be necessary?

What business functions will your app perform?

Will your app need social media integration?

Is this an MVP app or a fullfeature one?

At this stage, you do not need to have every single intention planned out. However, the answers to these questions will have an impact on your overall costs, as well as the scope and expected timeline of your project.<sup>4</sup>

For instance, if your app will be customer-facing, it will likely be "deployed through public app stores" for the price of a developer license - around \$100 USD.<sup>5</sup> Your app will then need to pass the approval and security guidelines of the Apple App Store or Google Play Store.

If you are distributing privately to employees or third parties, however, you may deploy via an Enterprise App Store. Annual prices for enterprise app stores run at \$40 USD per user, so the more employees you have, the more your costs will increase.

- 3. Ibid.
- 4. "3 Keys to Improving Mobile App Cost Estimation." Glenn Gruber. Accessed February 2019 from https://www.propelics.com/resources/whitepaper-3-keys-to-improving-mobile-app-cost-estimation/.
- 5. Ibid.



Aside from estimating your budget, these core questions also help inform the features you may want to incorporate into your user experience. User authentication method, for example, plays a huge role in app usability. Many businesses and enterprises use two-factor authentication not only to increase security, but also to "make sign-in faster and more reliable."

Defining your product and knowing your user, therefore, is the most important step in helping you decide what you are willing to pay for, how much you are willing to pay for it, and when you can expect it to be completed. Once you lay out this groundwork, you can proceed to the next stage of the development process - finding the right partner to actualize your app.





## **UNDERSTANDING YOUR OPTIONS**

Not all apps are alike, but what they have in common is that they require a fair amount of money, work, and time. The choice of hiring in-house, contracting freelance help, or working with an agency to develop an app is where business owners can exercise some control over these elements. Below are some points to consider that may help bring you diminished costs, higher expertise, and overall improved efficiency.







#### COST

Mobile "moves fast while budgets move slowly." Given that mobile apps take on new priorities according to user needs, they often veer way beyond normal budget cycles. In addition to the intrinsic cost drivers stated previously, such as the number of operating systems your app needs to support, certain app features are also just plain expensive. Payment processing or barcode scanning, signature capture, accessing the camera, or accessing location services all require additional funding - from coding and testing these elements, to ongoing maintenance and support of them.

One way to manage ongoing costs is to hire in-house, although this often backfires thanks to recruiting, onboarding, and payroll expenses, as well as the need to set up infrastructure and technical resources for staff. Contracting a freelancer is another route that small businesses take, but hourly rates can spiral out of control when you hire more talented developers. <sup>8</sup>

<sup>7.</sup> Ibid.

<sup>8. &</sup>quot;Freelance Web Developers vs. Dev Shops: What's Right for My Software Project?" July 13, 2018. Accessed from https://www.codementor.io/blog/freelance-developers-vs-dev-shops-2zekbyqmbz.



Outsourcing has proven to be an all-around effective solution for hiring talent within your budget, as an entire team or agency can cost equal to or less than the average salary of an experienced developer. Additionally, if you opt for outsourcing outside of the United States, you stand to save even more on your product - potentially by 30-40% - than if you opt for a US-based agency. 9

Of course, caution must be exercised when evaluating software houses, as cost alone does not always correlate with quality. In fact, many software houses tend to hire massive rotations of developers to accommodate workload, resulting in errors that slip through the cracks and workers that do not really care about the product. For that reason, it is important to also consider factors like agency size, general language proficiency, and methodology to ensure you attain the "golden mean" between cost and quality.

#### **EXPERTISE**

In pursuing greater quality, businesses will also want to screen partners on the basis of expertise. Here again, outsourcing provides the greatest advantage over hiring in-house or freelance because specialized agencies have teams of developers that work almost exclusively on app development. Since they already have built-in infrastructure and work cadences, you don't have to create these and can just pay for the talent.

"Talent is the most important (and most expensive) part of the app development process—whether an agency is paying the wages or you are." <sup>10</sup>

If you select a smaller software house with under 20 developers, your app will likely benefit from a greater concentration of expertise as these teams tend to hire only senior developers. With focused work and an even spread of talent, a small outsourced team provides you the redundancy you need for complex coding projects. Freelance developers are often hired on a milestone basis and can do well on specific tasks - but are not as "equipped to help clients develop full solutions [and] longer-term projects." Outsourced teams differ in that they provide advanced testing, have more capacity, and employ a wider range of technical skills.

<sup>9. &</sup>quot;How much does it cost to outsource app development?" Accessed March 2019 from https://thinkmobiles.com/blog/how-much-cost-outsource-app-development/.

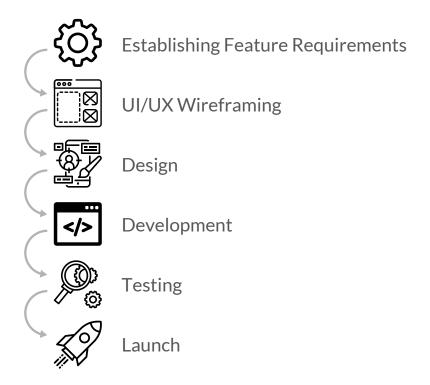
<sup>10. &</sup>quot;Outsource App Development vs. Build In-House: The Definitive Guide." Accessed March 2019 from https://mindsea.com/mobile-app-agency-inhouse/.

<sup>11. &</sup>quot;Freelance Web Developers vs. Dev Shops: What's Right for My Software Project?" July 13, 2018. Accessed from https://www.codementor.io/blog/freelance-developers-vs-dev-shops-2zekbyqmbz.



#### **EFFICIENCY**

The redundancy of work found in software houses and development agencies also contributes to faster turnaround times, which is particularly valuable for projects that have tight timelines. In addition to benefits like pair-programming (where you have two sets of eyes on your code the whole time) and comprehensive stress tests, a good agency will have the ability to take over the development process for you and help you organize in time for your product launch.



These are the essential stages of the app development process, and while each stage is needed for building a well-tested, reliable app, they can easily become "time drivers" on more complex projects. Whereas a freelance developer often requires consistent feedback and may not be able to provide additional resources such as design and wireframing, an outsourced team can be a "one-stop" solution and streamline all stages for you to avoid delays. Thus, in addition to quality and cost opportunity, speed is a significant differentiator that can help you decide whom to hire to build your app.



## **SUMMARY**

This paper has examined the value of first knowing what sort of application you want to build for your business, and how this will help you determine the best people to build it. Ultimately, the answer is not the same for everyone. There are pros and cons to each course of action, and the right choice for one business may not be the same for another. Outsourcing is one proven way to provide "more bang for your buck" with increased speed and organization, more talent, and built-in processes that keep your expenses under control. As with any hiring decision, however, there is homework to be done.

Factors like security and communication should be considered to mitigate risk. Can you easily get in touch with and speak with the team? Are there any language or cultural barriers? Are they available for support 24/7? What other apps have they developed? Who else have they worked with? Whatever your decision - whether you hire internally, or contract a freelancer, or outsource to a software house - the key to developing your app is collaboration. As long as you can work well with the team building your product, you can get a timely launch of a strongly-tested, world-class application.



The Brain Software House is a team of developers that have been friends for over 10 years. We build apps for iOS, Android, and the Web, faster than you can imagine. We cover everything from devops to automated testing, low- and high-level programming, back-end and front-end development, UX/UI, and more.

**LEARN MORE** 



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