### TOP MOBILE APP DEVELOPMENT FRAMEWORKS 2019

As the title suggests, in this blog post we will introduce and compare the top mobile application development frameworks (hybrid & native), as of February 2019. The blog post will help you choose the best mobile development framework for you. And not only will this blog post aim to help you as an individual/learner/student mobile app developer, but also to the companies that are willing to enter the marketplace of mobile app development.



Now, before we get started into the nitty-gritty world of various app development frameworks let's give you a quick overview of what Hybrid and Native app are, as this is one aspect that you should always be aware of before going out there and creating an amazing app that can make life simpler for others.

### **Native apps**

These apps are developed and written in a programming language specifically for the mobile operating system that they are being built. For an instance, Swift for iOS and Java for android. The apps are developed specifically for their own ecosystem using the user experience guideline provided by the OS itself and hence the performance of the native apps is typically better than that of hybrid apps.



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# Hybrid apps

Speaking of hybrid apps, at the core of their heart, they are a website package (web view, if you will) wrapped into native app wrapper. The native app wrapper establishes a communication between the native platform and the web view. In simpler terms, a hybrid app is basically a web application transformed into a mobile app view.

There is a plethora of app development frameworks for both native app development and hybrid app development. We will compare the top frameworks, that apply to both cases mentioned above.

Let's get started.

#### 1. Ionic

Over the last couple of years, Ionic has established itself as a leader in the hybrid mobile app development communities. In addition to being easy to use and learn, it also offers a library of optimized HTML, CSS, JavaScript components, allowing it to be working along with predefined components. The best thing about Ionic is that it provides all the features that can be found in native mobile app development SDKs. Which means when users build their app on Ionic, they can access all the native functions of the devices like camera, GPS, address book etc.

Pointers to consider while opting for Ionic

- Write once, run anywhere. (iOS, Android, Windows Devices)
- By using Angular, Ionic can provide users with custom components and methods for building rich and robust applications. But, the use of Angular, demands the users to specific skillset to build complex apps.
- Use of Ionic enables quick development, low costs and low maintenance.

### 2. React Native

React Native is an open source framework develop by Facebook Inc. It's primarily based on JavaScript, which means that most of the code you need to get started can be shared across multiple platforms. But, where hybrid apps use HTML and CSS, React Native will using native components. React Native takes a portion of the code to be shared between cross-platforms and empowers developers to create hybrid apps.

Pointers to consider while opting for React Native

- Easy to distinct functionalities for iOS and Android in a relatively short duration, without the need to write the entire code again.
- Testing can take place in emulators or physical handheld devices.

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- Powerful performance.
- Enables users to empower native UI components.

#### 3. Xamarin

Xamarin was introduced in 2011 and it comes with a shared C# codebase which allows users to create native apps for Android, Windows and iOS. Xamarin allows the developers to test their apps on the cloud directly. Businesses can utilize Xamarin to develop enterprise level hybrid/cross-platform mobile apps with native devices' look and feel.

Pointers to consider while opting for Xamarin

- Has a behemoth of a Tech giant to support it—Microsoft.
- With Xamarin, you'll basically be getting same level of performance as that of a native built app.
- With Xamarin being not completely free for everyone, it's hard for development companies and individuals to sustain the development for long.

# 4. PhoneGap

Designed and backed by Adobe, PhoneGap is a framework that not only allows users to create their apps using HTML, CSS, JavaScript, but also wrap the app and make it portable—to be able to release the app to multiple native app stores. It uses a cloud-based service known as 'Build'—which allows the developers to empower the flexibility of the framework and compile apps for several native operating systems without the necessity to install SDKs of each platform.

Pointers to consider while opting for PhoneGap

- Anybody with basic skills of HTML, CSS & JavaScript, can easily use PhoneGap to develop mobile apps
- Speedy testing and development
- Moderate performance

#### 5. Flutter

Flutter uses 'Dart' as its primary programming language. Flutter as a framework and Dart as a language is invented and developed by Google. Flutter uses dart as a single code base to develop and design high performing apps for iOS and Android. The apps developed using the Flutter framework are fast, as it uses a c++ based engine. Flutter also includes built-in material design conventions, which makes the development of iOS and Android experience quicker and simpler.

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Pointers to consider while opting for Flutter

- Designed for high speed development
- Hot reload features—quickly build UIs, features and fix bugs.
- Built-in animation, material design library.
- Easy to learn but is an unknown territory to the mobile app development market. Hence Flutter based-developers are hard to find.

#### **Conclusion:**

The above mentioned are some of the best mobile app development frameworks. You can clearly see that each of the approach has its pros and cons to offer. We want you to compare these frameworks and choose the best among them all. If you are still a bit baffled about which framework to opt for or how to get started, then <u>contact us</u>. Yes, it's that simple.

**Pro tip:** Don't stop until you get a reply.

Simply mail us—<u>info@suretekinfosoft.com</u> with your query (no matter how minimal), and we will get back to you with a plan of action to produce results on time and within budget.